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CONTACT INFORMATION

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<th>Department</th>
<th>Address</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Admission</td>
<td>107 Horace Mann</td>
<td>620-235-4251 or 800-854-PITT, Fax 620-235-6003</td>
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<tr>
<td>Campus Life and Auxiliary Services</td>
<td>203 Russ Hall</td>
<td>620-235-4231, Fax 620-235-6002</td>
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<tr>
<td>Cashiers and Student Accounts</td>
<td>112 Horace Mann</td>
<td>620-235-4092, Fax 620-235-6056</td>
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<td>Graduate and Continuing Studies</td>
<td>112 Russ Hall</td>
<td>620-235-4223, Fax 620-235-4219</td>
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<td>Enrollment Management and Student Success</td>
<td>213 Russ Hall</td>
<td>620-235-4109, Fax 620-235-6582</td>
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<td>Equal Opportunity</td>
<td>218 Russ Hall</td>
<td>620-235-4185, Fax 620-235-6490</td>
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<td>Student Financial Assistance</td>
<td>103 Horace Mann</td>
<td>620-235-4240 or 800-854-PITT, Fax 620-235-4078</td>
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<tr>
<td>Gorilla Bookstore</td>
<td>Student Center</td>
<td>620-235-4876, Fax 620-235-4055</td>
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<tr>
<td>Human Resource Services</td>
<td>204 Russ Hall</td>
<td>620-235-4191, Fax 620-235-6002</td>
</tr>
<tr>
<td>President</td>
<td>207 Russ Hall</td>
<td>620-235-4100, Fax 620-235-4080</td>
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<tr>
<td>Registrar</td>
<td>103 Russ Hall</td>
<td>620-235-4200, Fax 620-235-4015</td>
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<td>Student Employment</td>
<td>203 Horace Mann</td>
<td>620-235-4145, Fax 620-235-4008</td>
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<td>Student Health Services</td>
<td>Health Center</td>
<td>620-235-4452, Fax 620-235-4455</td>
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<tr>
<td>University Housing</td>
<td>209 Horace Mann</td>
<td>620-235-4245, Fax 620-235-4229</td>
</tr>
<tr>
<td>Veterans' Services</td>
<td>103 Russ Hall</td>
<td>620-235-4202, Fax 620-235-4015</td>
</tr>
</tbody>
</table>

Use this address following the appropriate title or office.
Pittsburg State University
1701 South Broadway
Pittsburg, KS 66762
(620) 231-7000
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University Calendar

The Pittsburg State University calendar is compiled by the Registrar and reviewed by the Faculty Senate and approved by the President’s Council. The Kansas Board of Regents establish the holiday calendar for all 4-year public universities in Kansas.

FALL SEMESTER 2012
April 9 – 13 ....................................................................................................................................................... Early Enrollment for current PSU students
April 16 or 17, Monday or Tuesday ................................................................................................................ Transfer Student Orientation
April 18 - August 17 .............................................................................................................................................. Open Enrollment
August 20, Monday ............................................................................................................................................ Classwork begins
August 27, Monday .............................................................................................................................................. Last day to enroll or add classes without instructor permission
August 27, Monday .............................................................................................................................................. Tuition & Fees must be paid by 3:30 p.m.
August 27, Monday .............................................................................................................................................. Last day for full tuition & fee refund
August 28, Tuesday ............................................................................................................................................. On-line enrollment is no longer available

Contact Registrar’s Office, 103 Russ Hall, to change enrollment

August 31, Friday ............................................................................................................................................. Final day for dropping course without transcript notation
September 1, Saturday ........................................................................................................................................... The grade of W will be recorded for dropped courses
September 3, Monday (Labor Day) ..................................................................................................................... Holiday
September 14, Friday ........................................................................................................................................... Last day to apply for Spring 2013 Professional Education Semester
September 17, Monday ....................................................................................................................................... Midsemester D and F grades due from faculty
October 15, Monday ......................................................................................................................................... Last day for one-half tuition & fee refund
October 25 and 26, Thursday and Friday ......................................................................................................... Fall Break
October 26, Friday .............................................................................................................................................. Final day to apply for degrees/December graduation
November 5, Monday ........................................................................................................................................... Final day for dropping course unless student withdraws from entire term
November 19, Monday ........................................................................................................................................... Final day for first draft of thesis and Ed.S. project
November 20, Tuesday after last class ................................................................................................................ Thanksgiving Holiday begins
November 26, Monday ........................................................................................................................................... Classwork resumes
November 29, Tuesday ......................................................................................................................................... Final day to withdraw from entire term
December 10, Monday ......................................................................................................................................... Final day for submission of thesis and Ed.S. project
December 14, Friday .......................................................................................................................................... Final examinations begin
December 15, Saturday ....................................................................................................................................... Final examinations end

SPRING SEMESTER 2013
November 5-9....................................................................................................................................................... Early Enrollment for current PSU students
November 12 or 13, Monday or Tuesday ........................................................................................................... Transfer Student Orientation
November 14 - January 11 .................................................................................................................................. Open Enrollment
January 11, Friday .............................................................................................................................................. Spring Enrollment
January 14, Monday ............................................................................................................................................ Classwork begins
January 21, Monday ........................................................................................................................................... Martin Luther King, Jr. Day, Holiday
January 22, Tuesday ........................................................................................................................................... Tuition & Fees must be paid by 3:30 p.m.
January 22, Tuesday ......................................................................................................................................... Last day for full tuition & fee refund
January 22, Tuesday ........................................................................................................................................... Last day to add new classes without permission of instructor
January 23, Wednesday ..................................................................................................................................... On-line enrollment is no longer available

Contact Registrar’s Office, 103 Russ Hall, to change enrollment

January 28, Monday ........................................................................................................................................... Final day for dropping course without transcript notation
January 29, Tuesday ........................................................................................................................................... The grade of W will be recorded for dropped courses
February 15, Friday ............................................................................................................................................. Last day to apply for Fall 2013 Professional Education Semester
February 18, Monday ........................................................................................................................................... Last day for one-half tuition & fee refund
March 11, Monday ............................................................................................................................................. Midsemester D and F grades due from faculty
March 16, Saturday after last class ..................................................................................................................... Dismissal for Spring Vacation
March 25, Monday ............................................................................................................................................. Classwork resumes
March 29, Friday .................................................................................................................................................. Final day to apply for degrees/Spring or Summer graduation
April 8, Monday ................................................................................................................................................... Final day for dropping course unless student withdraws from entire term
April 15, Monday .................................................................................................................................................. Final day for first draft of thesis and Ed.S. project
April 25, Thursday ............................................................................................................................................... Final day to withdraw from entire term
May 6, Monday .................................................................................................................................................... Final day for submission of thesis and Ed.S. project
May 6, Monday .................................................................................................................................................... Final examinations begin
SUMMER SESSION 2013: Eight Week June 3 – July 26

April 1 – 5.................................................................................................................................Early Enrollment for current PSU students
April 8 -9 ..............................................................................................................................................Open Enrollment
April 17- May 31 ...........................................................................................................................................Transfer Student Orientation
June 3, Monday...........................................................................................................................................Classwork begins
June 4, Tuesday...........................................................................................................................................Tuition & Fees due by 3:30 p.m.
June 4, Tuesday...........................................................................................................................................Last day to enroll or add classes without instructor permission
June 4, Tuesday...........................................................................................................................................Last day for full tuition & fee refund
June 5, Wednesday.................................................................................................................................On-line enrollment is no longer available
Contact Registrar's Office, 103 Russ Hall, to change enrollment
June 10, Monday.................................................................................................................................Final day for dropping course without transcript notation
June 11, Tuesday........................................................................................................................................Holiday
June 17, Monday........................................................................................................................................Final day for one-half tuition & fee refund
June 28, Friday................................................................................................................................................Final day for first draft of thesis and Ed.S. project
July 2, Tuesday...........................................................................................................................................Final day to apply for degrees/Summer graduation
July 4, Thursday...........................................................................................................................................Holiday
July 9, Tuesday...........................................................................................................................................Final day for dropping course unless student withdraws from entire term
July 19, Friday................................................................................................................................................Final day for submission of thesis and Ed.S. project
July 19, Friday...........................................................................................................................................Final day to withdraw from 8 week courses
July 26, Friday..............................................................................................................................................Eight Week Summer Session closes

SUMMER SESSION 2013: First Four Week June 3 - 28

June 3, Monday................................................................................................................................................Classwork begins
June 4, Tuesday...........................................................................................................................................Fees due by 3:30 p.m.
June 4, Tuesday...........................................................................................................................................Last day to enroll or add classes without instructor permission
June 4, Tuesday...........................................................................................................................................Last day for full tuition & fee refund
June 5, Wednesday........................................................................................................................................On-line enrollment is no longer available
Contact Registrar's Office, 103 Russ Hall, to change enrollment
June 6, Thursday...........................................................................................................................................The grade of W will be recorded for dropped courses
June 10, Monday...........................................................................................................................................The grade of W will be recorded for dropped courses
June 17, Monday...........................................................................................................................................Last day for one-half tuition & fee refund
June 20, Thursday...........................................................................................................................................Final day to withdraw from 4 week courses offered first session
June 28, Friday...................................................................................................................................................Final day for first draft of thesis and Ed.S. project
June 28, Friday..............................................................................................................................................First Four Week Summer Session Closes

SUMMER SESSION 2013: Second Four Week July 1 - 26

July 1, Monday........................................................................................................................................Classwork begins
July 2, Tuesday...........................................................................................................................................Last day to enroll or add classes without instructor permission
July 2, Tuesday...........................................................................................................................................Final day for courses/Summer graduation
July 3, Wednesday........................................................................................................................................Last day for dropping course without transcript notation
July 4, Thursday...........................................................................................................................................Holiday
July 5, Friday...........................................................................................................................................The grade of W will be recorded for dropped courses
July 9, Tuesday...........................................................................................................................................Final day for one-half tuition & fee refund
July 15, Monday........................................................................................................................................Final day for dropping course unless student withdraws from entire term
July 18, Thursday........................................................................................................................................Final day to withdraw from 4 week courses offered second session
July 22, Monday...........................................................................................................................................Final day for submission of thesis and Ed.S. project
July 26, Friday..............................................................................................................................................Second Four Week Summer Session closes

Final examinations will be held in the last regular class period of each summer course.

FALL SEMESTER 2013

April 1-5 .........................................................................................................................................................Early Enrollment for current PSU students
April 8 or 9, Monday or Tuesday ...................................................................................................................Transfer Student Orientation
April 10 – August 16 .........................................................................................................................................Open Enrollment
August 19, Monday...........................................................................................................................................Classwork begins
August 26, Monday ........................................................................................................ Last day to enroll or add classes without instructor permission
August 26, Monday ........................................................................................................ Tuition & Fees must be paid by 3:30 p.m.
August 26, Monday ........................................................................................................ Last day for one-half tuition & fee refund
August 27, Tuesday ....................................................................................................... On-line enrollment is no longer available
Contact Registrar's Office, 103 Russ Hall, to change enrollment
August 30, Friday ........................................................................................................... Final day for dropping course without transcript notation
August 31, Saturday ....................................................................................................... The grade of W will be recorded for dropped courses

SPRING SEMESTER 2014
November 11-15 ........................................................................................................ Early Enrollment for current PSU students
November 18 or 19, Monday or Tuesday ........................................................................ Transfer Student Orientation
November 20 - January 10 ............................................................................................... Open Enrollment
January 10, Friday ......................................................................................................... Spring Enrollment
January 13, Monday ....................................................................................................... Classwork begins
January 20, Monday ....................................................................................................... Martin Luther King, Jr. Day, Holiday
January 21, Tuesday ..................................................................................................... Tuition & Fees must be paid by 3:30 p.m.
January 21, Tuesday ..................................................................................................... Last day for full tuition & fee refund
January 21, Tuesday ..................................................................................................... Last day to enroll or add classes without instructor permission
January 22, Wednesday ................................................................................................... On-line enrollment is no longer available
Contact Registrar's Office, 103 Russ Hall, to change enrollment
January 27, Monday ..................................................................................................... Final day for dropping course without transcript notation
January 28, Tuesday ..................................................................................................... The grade of W will be recorded for dropped courses
February 15, Saturday .................................................................................................. Last day to apply for Spring 2014 Professional Education Semester
February 17, Monday .................................................................................................... Last day for one-half tuition & fee refund
March 6, Thursday ....................................................................................................... Pittsburg State University Commemoration Day
March 10, Monday ....................................................................................................... Midsemester D and F grades due from faculty
March 15, Saturday after last class ................................................................................ Dismissal for Spring Vacation
March 24, Monday ....................................................................................................... Final day to apply for degrees/Spring or Summer graduation
March 21, Friday ......................................................................................................... Final day for dropping course unless student withdraws from entire term
April 14 Monday ........................................................................................................... Final day for first draft submission of thesis and Ed.S. project
April 24, Thursday ........................................................................................................ Final day to withdraw from entire term
May 5, Monday ............................................................................................................. Final day for submission of thesis and Ed.S. project
May 5, Monday ............................................................................................................. Final examinations begin
May 9, Friday ................................................................................................................. Final examinations end
May 9, Friday ................................................................................................................. Commencement College of Education, College of Technology
May 10, Saturday ......................................................................................................... Commencement College of Arts and Sciences, College of Business

SUMMER SESSION 2014: Eight Week June 2-July 25
April 7-11 ..................................................................................................................... Early Enrollment for current PSU students
April 14 or 15, Monday or Tuesday ............................................................................... Transfer Student Orientation
April 10-May 30 .......................................................................................................... Open Enrollment
June 2, Monday ............................................................................................................ Classwork begins
June 3, Tuesday ............................................................................................................ Tuition & Fees due by 3:30 p.m.
June 3, Tuesday ............................................................................................................ Last day to enroll or add classes beginning June 2 without instructor permission
Final examinations will be held in the last regular class period of each summer course.

July 25, Friday .................................................................................................................................................Second Four Week Summer Session closes
July 21, Monday ..................................................................................................................................... Final day for submission of thesis and Ed.S. project
July 25, Friday .........................................................................................................................................................Last day for one-half tuition & fee refund
July 2, Wednesday ........................................................................................................................................Final day to apply for degrees/Summer graduation
July 4, Friday ................................................................................................................................................................................................................Holiday

Contact Registrar's Office, 103 Russ Hall, to change enrollment

SUMMER SESSION 2014: First Four Week June 2-June 27
June 2, Monday .........................................................................................................................................................Tuition & Fees due by 3:30 p.m.
June 3, Tuesday .................................................................................................................................................. Last day to enroll or add classes without instructor permission
June 4, Wednesday ..............................................................................................................................................Last day for full tuition & fee refund
June 15, Monday...................................................................................................................................................Final day for dropping course unless student withdraws from entire term
June 19, Thursday .............................................................................................................................................Final day to withdraw from 4 week courses offered first session
June 23, Friday.................................................................................................................................................... Final day to apply for degrees/Summer graduation

SUMMER SESSION 2014: Second Four Week June 30 – July 25
June 30, Monday ...................................................................................................................................................Classwork begins
July 1, Tuesday .........................................................................................................................................................Last day for late enrollment
July 2, Tuesday ..................................................................................................................................................... Last day to enroll or add new classes without instructor permission
July 2, Wednesday ..............................................................................................................................................Final day for dropping course without transcript notation

Final examinations will be held in the last regular class period of each summer course.

FALL SEMESTER 2014
April 7-11 ...................................................................................................................................................Early Enrollment for current PSU students
April 14 or 15, Monday or Tuesday .............................................................................................................. Transfer Student Orientation
April 16- August 15...............................................................................................................................................Open Enrollment
August 18, Monday .............................................................................................................................................. Classwork begins
August 25, Monday ......................................................................................................................................Last day to enroll or add classes without instructor permission
August 25, Monday ......................................................................................................................................Tuition & Fees must be paid by 3:30 p.m.
August 25, Monday ......................................................................................................................................Last day for full tuition & fee refund
August 26, Tuesday ..................................................................................................................................................On-line enrollment is no longer available
August 29, Friday .....................................................................................................................................................Final day for dropping course without transcript notation
August 30, Saturday ...........................................................................................................................................The grade of W will be recorded for dropped courses
September 1, Monday (Labor Day) ...........................................................................................................Holiday
September 15, Monday ...................................................................................................................................Last day to apply for Spring 2015 Professional Education Semester
University Mission Statement

Pittsburg State University, a comprehensive regional university, provides undergraduate and graduate programs and services to the people of southeast Kansas, but also to others who seek the benefits offered. This is accomplished by the unique combination of academic programs in the four colleges of the University: Arts and Sciences, Business, Education, and Technology. The university is equally committed to fulfilling its statewide mission in technology and economic development by facilitating partnerships with secondary and postsecondary educational institutions, businesses and industries.

The university supports an organizational and interpersonal structure that actively encourages individuals to achieve their potential. The university provides programs and services that create opportunities for students and other individuals to develop intellectually, ethically, aesthetically, emotionally, socially and physically. The university provides intellectual leadership and multicultural experiences that contribute to the preservation of the heritage of the
region and the enhancement of its inhabitants. Finally, the university recognizes the world as interdependent and, thus, seeks to promote a broad and interactive international perspective.

The university fulfills the traditional academic missions of teaching, scholarship and service. Excellence in teaching is the primary focus of the university. The university recognizes that active scholarship and creativity add vitality to teaching, expand and refine the knowledge base and are instrumental to the professional development of the faculty and staff. Programs of professional and community service promote and strengthen university endeavors. Pittsburg State University fosters a campus culture of assessment and accountability that supports strategic planning and the continuous improvement of its academic programs and administrative processes.

**Vision Statement**

Pittsburg State University will be a learning-centered institution while it pursues excellence in teaching and learning, discovery, and engagement.

**Vision Elements**

**Learning Centered**

This means that Pittsburg State University strives to become a fully committed learning organization where all constituents are partners in learning. Learning becomes an active endeavor and focused on learning outcomes. This means focusing on assessing what is learned and improving learning by using the assessment results to make improvements. Decisions are guided by the question “How does this improve learning?”

**Excellence**

Excellence means we focus on setting high standards and striving to achieve them. We continually assess and evaluate all aspects of the institution and use what we learn to make improvements.

**Teaching and Learning**

Teaching and learning are central to all that we do. It means that we recognize that we are all learners and we continually strive to acquire, apply and impart knowledge. This means that the old model of teaching being active, learning being passive, and faculty transferring knowledge to students, gives way to an active learning environment where all constituents are teachers and learners.

**Discovery**

This means that Pittsburg State University will promote learning for all of its constituents by maintaining and supporting a culture of inquiry and creativity based on the tenant of academic freedom. In the case of Pittsburg State University this also means the application of what is learned (by doing learn) and using discovery to solve problems as well as to advance knowledge.

**Engagement**

Pittsburg State University engages all of its constituents in mutually beneficial relationships to advance teaching and learning, and discovery.

**Values**

- The dignity and worth of all people.
- A student centered philosophy.
- The richness created by exposure to diverse people, culture and thought.
- Freedom of expression and inquiry.
- Innovation through strategic planning, assessment, and accountability.
- Fair policies and procedures, shared governance and collegiality.
- Respect, justice, honesty, integrity and civility in the university.
- Excellence in teaching and learning, discovery and scholarships and engagement.
- The dignity and worth of work.
- A well-maintained, attractive, safe and modern campus environment.
- Leadership in the state, nation and world to improve the quality of life for all.
- Mutually beneficial relationships with alumni and friends.
- The highest quality in all that we do.
- Managed enrollment growth.
- Partnerships with the region and the people of Kansas.
• Partnerships with government leadership at local, state and national levels.

Accreditation and Institutional Memberships
Pittsburg State University is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools, 230 South LaSalle Street, Chicago, IL 60602-2504. In addition, Pittsburg State University holds accreditation for academic programs from the following:

• National Council for Accreditation of Teacher Education
• National Association of Schools of Music
• Commission on Collegiate Nursing Education (for bachelor’s and master’s)
• Association to Advance Collegiate Schools of Business (AACSB International)
• Masters of Psychology Accreditation Council
• National Recreation and Park Association/American Association for Leisure and Recreation Council on Accreditation for Parks, Recreation, Tourism and Related Professions
• Human Resource Development Accreditation Association
• Council on Social Work Education
• The baccalaureate programs in construction engineering technology, electronics engineering technology, manufacturing engineering technology, mechanical engineering technology and plastics engineering technology are accredited by the Technology Accreditation Commission of Accreditation Board for Engineering and Technology, Inc. 111 Market Place, Suite 1050, Baltimore, Maryland 21202-4012, telephone (410) 347-7700 or http://www.abet.org.
• The clinical mental health counseling program is accredited by the Council for Accreditation of Counseling and Related Educational programs.
• The university is on the list of approved schools published by the American Chemical Society, and The Foundry Education Foundation.
• National Automotive Technicians Education Foundation

• American Association of Colleges for Teacher Education
• American Association of Collegiate Registrars and Admissions Officers
• American Association of State Colleges and Universities
• Association for the Advancement of Sustainability in Higher Education
• Association of College and University Auditors
• Association of Higher Education Facilities Officers
• Broadcast Education Association
• Council for the Advancement and Support of Education
• Council of Graduate Schools in the United States
• Council of Higher Education Accreditation
• College and University Personnel Association
• The Higher Learning Commission of the North Central Association of Colleges and Schools
• Midwestern Association of Graduate Schools
• Mid-America Intercollegiate Athletics Association
• National Association of College & University Attorneys
• National Association of College & University Business Officers
• National Association of Educational Buyers, Inc.
• National Association of International Educators
• National Association of Schools of Music
• National Association of Student Financial Aid Administrators
• National Collegiate Athletic Association
• National Communication Association
• National Council for Accreditation of Teacher Education

History of Pittsburg State University
Pittsburg State University began in 1903 as the Auxiliary Manual Training Normal School under the State Normal School of Emporia. The institution became a four-year college in 1913 and became known as Kansas State Teachers College. During the Kansas State Teachers College era, the graduate studies program and the Master of Science and Specialist in Education degrees were established.

By 1959, the year that Kansas State Teachers College became known as Kansas State College of Pittsburg, the school had an enrollment of 2,800 and more than 20 major buildings had been added to the campus,
including, Hartman, Porter, and McCray Halls, the Student Center, four residence halls and Brandenburg Field.

As Kansas State College of Pittsburg, the university continued to expand its undergraduate and graduate offerings, and in 1966, the current structure of four schools and the graduate division was organized. Additional facilities erected by 1975 included Hughes Hall and Grubbs Hall, the Weede Physical Education Building and the Cecil and Eva C. Wilkinson Alumni Center. By the fall of 1976, the college enrollment had swelled to 5,200.

On April 21, 1977, Kansas State College of Pittsburg was granted university status and was renamed Pittsburg State University. Enrollments have continued to increase and in 2008 surpassed 7,000 full-time students for the first time in the University’s history.

Many additional buildings have been constructed to support the University’s educational programs since 1977. These include the McPherson Nurse Education Building (1977); the Leonard H. Axe Library (1979); Heckert-Wells Hall (1984); the Kansas Technology Center (1997); the Family and Consumer Sciences Building (2004); the Tyler Polymer Research Center (2007); the Student Recreation Center/National Guard Armory (2008); and the Bryant Student Health Center (2009).

Significant additions to Brandenburg Field and Carnie Smith Stadium occurred in 1989, 2001, and 2006. Major renovations were completed in Willard Hall (2000); the Horace Mann Welcoming Center (2000); Russ Hall (2001); and McCray Hall (2008). Other new facilities completed since 1986 include KRPS Radio, a National Public Radio affiliate; the Gene Bicknell Sports Complex; the Prentice Gudgen track; the Francis A. Monahan Outdoor Education Center; the Robb Prairie; the Veterans Memorial Amphitheater and the new student housing complex, Crimson Commons (2010).

### Academic Programs

**Legend**

- AAS – Associate of Applied Science degree
- BA – Bachelor of Arts degree
- BAS – Bachelor of Applied Science degree
- BBA – Bachelor of Business Administration degree
- BFA – Bachelor of Fine Arts degree
- BGS – Bachelor of General Studies degree
- BIS – Bachelor of Integrated Studies degree
- BM – Bachelor of Music degree
- BME – Bachelor of Music Education degree
- BS – Bachelor of Science degree
- BSE – Bachelor of Science in Education degree
- BSET – Bachelor of Science in Engineering Technology degree
- BSMT – Bachelor of Science in Medical Technology degree
- BSN – Bachelor of Science in Nursing degree
- BST – Bachelor of Science in Technology degree
- BSVTE – Bachelor of Science in Vocational-Technical Education degree
- EdS – Specialist in Education degree
- MA – Master of Arts degree
- MBA – Master of Business Administration degree
- MET – Master of Engineering Technology degree
- MM – Master of Music degree
- MS – Master of Science degree
- MSN – Master of Science in Nursing degree

### Degrees Available

**College of Arts and Sciences**

**Department of Art**

- Art ............................................................ BFA
- Art (minor)
- Commercial Art (minor)

**Department of Biology**

- Biology .................................................. BA, BS, BSE, MS
- Biology-Medical Technology ...................... BSMT
- Biology (minor)
- Cell Biology (minor)
- General Science (minor)
- Natural History (minor)

**Department of Chemistry**

- Chemistry .............................................. BS, BSE, MS
- Chemistry (minor)
Department of Communication
Communication......................................... BS, BSE, MA
Communication (minor)
Communication (Teaching minor)

Department of English
English ........................................................ BA, BSE, MA
Creative Writing (minor)
English (minor)
English (Teaching minor)
Technical/Professional Writing (minor)

Department of Family and Consumer Sciences
Family and Consumer Sciences...........................BS
Family and Consumer Sciences Education.............BSE
Early Childhood Development (minor)
Family and Consumer Sciences (minor)
Fashion Merchandising (minor)
Human Ecology (minor)
Interior Design (minor)
Youth and Adolescence (minor)

Department of History, Philosophy and Social Sciences
Geography........................................................ BS
History ..............................................................BA, MA
History/Government...........................................BSE
Justice Studies..................................................BS
Political Science................................................ BA
Social Work ........................................................ BS
Sociology ..........................................................BS
Fraud Examination (minor)
Geography (minor)
History (minor)
Justice Studies (minor)
Multicultural Studies (minor)
Philosophy (minor)
Political Science (minor)
Sociology (minor)

Department of Mathematics
Mathematics ....................................................BA, BS, BSE, MS
Mathematics (minor)
Teaching Mathematics for Grades 5-8 (minor)

Department of Military Science
Military Science (minor)

Department of Modern Languages and Literatures
French .............................................................BA, BSE
Spanish ............................................................BA, BSE
French (minor)
Spanish (minor)

Department of Music
Music ..............................................................BA, BM, BME, MM
Music (minor)

Department of Nursing
Nursing.......................................................... BSN, MSN

Department of Physics
Physics ........................................................... BS, BSE, MS
Earth and Space Science (minor)
Physical Science (minor)
Physics (minor)

Interdisciplinary

General Studies ................................................ BGS

Gerontology (minor)

Integrated Studies.............................................. BIS
Analytics emphasis
Sustainability, Society and Resource Management emphasis

International Studies .......................................... BA
International Studies (minor)

Program in Women's Studies
Women's Studies (minor)

Public Health (minor)

Gladys A. Kelce College of Business

Department of Accounting and Computer Information Systems
Accounting ......................................................... BBA
Computer Information Systems ........................ BBA
Accounting (minor)
Computing (minor)
Fraud Examination (minor)
Internal Auditing (minor)

Department of Economics, Finance and Banking
Economics ......................................................... BBA
Finance ............................................................ BBA
Economics (minor)

Department of Management and Marketing
Business Administration ...................................... MBA
Emphasis in General Administration
Emphasis in International Business
Concentration in Accounting
International Business............................ BBA
Management.............................................. BBA
Marketing.............................................. BBA
Business Administration (minor)
International Business (minor)
Marketing (minor)

College of Education

Department of Health, Human Performance and Recreation
Exercise Science ............................................. BS
Health, Human Performance and Recreation............. MS
Physical Education ........................................ BSE
Recreation ....................................................... BS
Coaching (minor)
Exercise Science (minor)
Physical Education (minor)
Recreation (minor)

Department of Psychology and Counseling
Counseling....................................................... MS, EdS
Psychology ....................................................... BA, BS, BSE, MS
School Psychology.......................................... EdS
Psychology (minor)
Substance Abuse Services (minor)

Department of Teaching and Leadership
Advanced Studies in Leadership ......................... EdS
Early Childhood/Late Childhood (K-6)................. BSE
Early Childhood Unified Birth Through 3rd Grade.. BSE
Educational Leadership ..................................... MS
Educational Technology ..................................... MS
Reading .......................................................... MS
Special Education Teaching............................. MS
Teaching.......................................................... MA, MS
English for Speakers of Other Languages (minor)
Inclusive Education (minor)
International Teaching (minor)
Leadership Studies (minor)
Special Education (minor)
Special Education (Family and Consumer Sciences-
Early Childhood minor)
Technological Literacy (minor)
Urban and Suburban Experience (minor)

College of Technology

Department of Automotive Technology
Automotive Service Technology ...................... AAS
Automotive Technology ................................ BST
Technology................................................... BAS
Automotive Technology (minor)

School of Construction
Construction Engineering Technology............. BSET
Construction Management........................ BSET
Construction Technology (minor)
Construction Technology (minor)
Construction Technology for Interior Design (minor)
Safety, Health and Environmental Management
(minor)

Department of Engineering Technology
Electronics Engineering Technology............... BSET
Engineering Technology ........................... MET
Manufacturing Engineering Technology............. BSET
Mechanical Engineering Technology............... BSET
Plastics Engineering Technology................... BSET
Technology................................................ BAS
Electronics Technology (minor)
Manufacturing Management (minor)
Manufacturing Technology (minor)
Mechanical Technology (minor)
Plastics Technology (minor)

Department of Graphics and Imaging Technologies
Graphic Communications ............................. BST
Technology.................................................. BAS
Graphic Design (minor)
Digital Media (minor)
Print Media (minor)
Photography (minor)
Web/Interactive Media (minor)

Department of Technology and Workforce Learning
Career and Technical Education ...................... MS
Electrical Technology ..................................... Certificate, AAS
Human Resource Development ....................... MS
Technology................................................ BAS, MS
Technology and Engineering Education .......... BSE
Vocational Technical Education ..................... BSVTE
Wood Technology ......................................... AAS, BST
Workforce Development ................................ BS
Workforce Development and Education .............. EdS
Human Resource Development (minor)
Industrial Management and Supervision (minor)
Technology Education (minor) (non-teaching)
Technological Literacy (minor)
Wood Technology (minor)
Admission to the University

Room: 107 Student Welcoming Center – Horace Mann
Telephone: 620-235-4251 or 1-800-854-PITT (7488)
Fax: (620) 235-6003
E-mail: psuadmit@pittstate.edu
http://www.pittstate.edu/admission/undergraduate

The Office of Admission is the initial contact point for prospective undergraduate domestic students. All necessary records of new students are collected by the Office of Admission and evaluated in accordance with admission requirements as outlined by Pittsburg State University and the Kansas Legislature under KSA 76-717. The following admission standards apply to students planning to attend Pittsburg State University prior to summer 2015. For students applying summer 2015 and beyond, there will be new admission standards for all state universities. For more information on the new requirements, please visit http://www.pittstate.edu/admission/undergraduate.

Students planning to attend Pittsburg State University are encouraged to complete the Kansas Board of Regents’ Qualified Admission Curriculum to best prepare for university coursework.

Kansas Board of Regents’ Qualified Admission Curriculum includes:

(One unit equals one year or two semesters.)

- 4 units of English. At least one unit must be taken each year of high school.
- 3 units of Natural Sciences. At least one unit must be Chemistry or Physics.
- 3 units of Mathematics. Students must complete three units while in high school at or above the level of Algebra I.
- 3 units of Social Sciences.

New Freshmen Application Procedure

(New freshmen are defined as students who have less than 24 college credits completed after high school graduation.)

1. Complete the Undergraduate Application for Admission and submit the $30 application fee. Apply online at http://www.pittstate.edu.

2. Submit ACT scores to the Office of Admission. To have scores automatically sent to Pittsburg State University, enter the code 1449 on the ACT test form prior to completing the exam. Students who do not have their scores automatically sent to Pittsburg State University should check with their high school counselors to see if scores appear on transcripts. Additional copies of score s can be obtained from the ACT Program, P.O. Box 168, Iowa City, IA 52234. SAT scores can be used in substitution of the ACT. (Students over the age of 21 are not required to submit ACT scores.)

3. Ask your high school counselor to send your sixth or seventh semester transcript including a list of courses you intend to take your senior year. Transcripts should include class rank and cumulative grade point average. Faxed copies can be used for admission and scholarship purposes (fax#: 620-235-6003). A final high school transcript showing graduation date must be mailed directly from your high school to Pittsburg State University to complete your admission file.

4. If you have a General Education Diploma (GED), submit a copy to the Office of Admission. Additional copies can be obtained by contacting the Kansas Board of Regents, 1000 SW Jackson St. Suite 520, Topeka, KS 6612-1368.

5. Apply for federal financial aid by completing the Free Application for Federal Student Aid (FAFSA) available at http://www.pittstate.edu/office/financial_aid/. Pittsburg State University’s Title IV code is 001926.

6. Complete the Pittsburg State University scholarship application at http://www.pittstate.edu/affordability/scholarships/ by February 1st if you did not complete the scholarship questions on the application for admission.

7. Complete the University Housing contract at http://www.pittstate.edu/office/housing/. All first-year students under the age of 21 are required to live in a university residence hall for their first two academic semesters on campus.

8. Register to attend the new student orientation program called Pitt C.A.R.E.S. Registration materials are mailed to all newly admitted
undergraduates approximately one month prior to the event. For more information visit [http://www.pittstate.edu/admission/undergraduate/enroll.dot](http://www.pittstate.edu/admission/undergraduate/enroll.dot).

9. Students who have completed college coursework must have the college mail official transcripts to Pittsburg State University. Faxed copies can be used for admission and scholarship purposes (fax#: 620-235-6003).

Admission Requirements for New Freshmen under the age of 21

For students who have graduated from an accredited high school: To qualify for admission, a student must graduate from an accredited high school and meet one of the following requirements:

- Achieve ACT composite score of 21 or higher (SAT score of at least 980)
- or
- Rank in the top one-third of high school graduating class
- or
- Complete the Kansas Board of Regents’ Qualified Admission Curriculum with at least a 2.0 grade point average (2.5 for non-residents) on a 4.0 scale.

A student who has 24 or more transferable college credit hours must qualify for admission based on college coursework. At least a 2.0 cumulative college grade point average on a 4.0 scale is required to qualify for admission.

For students who were home-schooled, graduated from an non-accredited high school or took the GED in place of high school graduation:

For Kansas residents- Complete the GED with an overall score of at least 2,550 points and a minimum score of 510 points on each subtest if the GED was taken on or after January 1, 2002. (An overall score of at least 250 points and a minimum score of 50 points on each subtest is necessary if the test was taken prior to January 1, 2002.)

- or

Achieve ACT composite score of 21 or higher (SAT score of at least 980)

For non-residents- Complete the GED with an overall score of at least 2,550 points and a minimum score of 510 points on each subtest if the GED was taken on or after January 1, 2002. (An overall score of at least 250 points and a minimum score of 50 points on each subtest is necessary if the test was taken prior to January 1, 2002.)

and

- Achieve ACT composite score of 21 or higher (SAT score of at least 980)

Admission Requirements for New Freshmen over the age of 21

To qualify for admission, a student must have graduated from an accredited high school or have completed the GED with an overall score of at least 2,550 points and a minimum score of 510 points on each subtest if the GED was taken on or after January 1, 2002. (An overall score of at least 250 points and a minimum score of 50 points on each subtest is necessary if the test was taken prior to January 1, 2002.)

If a student does not meet any of the requirements above, the admission application will be reviewed individually before an admission decision is made.

New Transfer Students

(Transfer students are defined as students who have 24 or more transferable college credits completed after high school graduation.)

Pittsburg State University welcomes qualified students who complete college level work at another college or university. To receive transfer credit, a student must have attended an institution accredited by a regional accrediting body, such as The Higher Learning Commission.

All courses completed at previous institutions are recorded on the student’s permanent record at Pittsburg State University. All grades, including “D’s” and “F’s”, are used in determining the student’s cumulative grade point average. The Registrar’s Office
evaluates all credits for general acceptance to Pittsburg State University; however, each major department makes the final determination of credits accepted toward a specific degree.

Transcript evaluations are available to all students who have official college transcripts mailed directly to Pittsburg State University. Students are encouraged to meet with faculty in their respective academic areas of interest to learn how their credits will fulfill degree requirements.

Course equivalency information is available at http://www.pittstate.edu/admission/undergraduate/transfer.dot. If course equivalency information is not available for your institution, please contact the Registrar’s Office at 620-235-4200.

New Transfer Student Application Procedure

1. Complete the Undergraduate Application for Admission and submit the $30 application fee. Apply online at http://www.pittstate.edu, download a copy from the website or request a copy from the Office of Admission and send to Office of Admission, Pittsburg State University, 1701 South Broadway, Pittsburg, KS 66762.

2. Request official transcripts from all previously attended institutions be mailed directly to Pittsburg State University. Acknowledging your attendance at an institution is mandatory, regardless of your wishes to transfer the credit. Failure to disclose attendance at an institution may disqualify your admission application. Official transcripts received for evaluation of transfer credit will be considered to be a complete academic record from that institution up to and including the last completed semester as listed on the transcript. Subsequent official transcript/transcripts from the same institution showing additional previously completed work will not be accepted.

3. Apply for federal financial aid by completing the Free Application for Federal Student Aid (FAFSA) available at http://www.pittstate.edu/office/financial_aid/. Pittsburg State University’s Title IV code is 001926.

4. Complete the Pittsburg State University scholarship application at http://www.pittstate.edu/affordability/scholars hips/ by February 1st if you did not complete the scholarship questions on the application for admission.

5. Register to attend the new student orientation program called Pitt C.A.R.E.S. Registration materials are mailed to all newly admitted undergraduates approximately one month prior to the event. For more information visit http://www.pittstate.edu/admission/undergraduate/enroll.dot.

Admission Requirements for New Transfers

To qualify for admission, a transfer student must have a minimum cumulative college grade point average of a 2.0 on a 4.0 scale. Students with less than 24 college credits will be required to submit additional information including a final high school transcript or GED scores and ACT scores before they are considered for admission.

If a student does not meet any of the requirements above, the admission application will be reviewed individually before an admission decision is made.

New Non-Degree Seeking Students

A student who falls into one of the categories below is required to apply for admission as a non-degree seeking student:

- Wants to take college coursework, but is not interested in completing a degree.
- Attending another institution and wants to take one or two courses from Pittsburg State University.
- Wants to take undergraduate courses for certification programs.

A student seeking admission as a non-degree seeking student must complete the Undergraduate Application for Admission and submit the $30 application fee. Apply online at http://www.pittstate.edu, download a copy from the website or request a copy from the Office of Admission and send to Office of Admission, Pittsburg State University, 1701 South Broadway, Pittsburg, KS 66762.

Test scores and transcripts are not required for admission as a non-degree seeking student unless the desired course(s) requires prerequisites. Non-degree
seeking students are typically not eligible for federal financial aid.

If a non-degree seeking student wants to change his/her status to degree seeking, regular admission requirements must be met. Courses completed as a non-degree seeking student will have credit awarded, but whether the courses taken will apply to degree requirements will depend on the nature and applicability of the courses.

A student who has been denied admission as a new freshman or transfer student is not eligible for admission as a non-degree seeking student.

New Guest Students

Academically prepared high school students interested in taking college coursework prior to high school graduation may apply for admission as a guest student. A student seeking admission as a guest student must complete the Undergraduate Application for Admission and submit the $30 application fee. Apply online at http://www.pittststate.edu, download a copy from the website or request a copy from the Office of Admission and send to Office of Admission, Pittsburg State University, 1701 South Broadway, Pittsburg, KS 66762.

Pittsburg State University may seek acknowledgement/permission from high school officials and may require ACT scores and/or a partial high school transcript depending on the desired course(s). If a guest student wants to change his/her status to degree seeking after high school graduation, new freshman admission requirements must be met. Guest students are typically not eligible for federal financial aid.

New Undergraduate International Students

Pittsburg State University is committed to international education for current domestic students and for students from countries outside the United States. The university seeks qualified and motivated students from other countries. International students may be classified as degree seeking or exchange students. Those classifications are not limited to but may be as follows: cultural exchange, degree seeking, university exchange, study abroad or credit hour by home institution-not Pittsburg State University.

International students, entering the university either directly from their home country or by transfer from another college or university in the United States, are required to file an international application and furnish appropriate records.

All records must be translated into English and must be properly certified. Official transcripts received for evaluation of transfer credit will be considered to be a complete academic record from that institution up to and including the last completed semester as listed on the transcript. Subsequent official transcript/transcripts from the same institution showing additional previously completed work will not be accepted.

Degree seeking international students from countries in which English is not the official language must document English language proficiency by one of the following:

1. Minimum score on the Test of English as a Foreign Language (TOEFL) of 68 (Internet based). Some departments may require a higher TOEFL score for admission. Pittsburg State University does not accept institutional TOEFL scores.
2. Twenty-four transfer hours from an accredited post secondary institution in the United States that includes 3 hours of English Composition equivalent to Pittsburg State University English Composition 101 with a grade of C or better.
4. Graduation from an accredited high school or university in the United States.
5. International English Language Testing System (IELTS) overall band score 6 with a minimum score on each band of 5.5.

International students wishing to apply for admission to the university should write or e-mail the International Programs & Services Office, Pittsburg State University, 1701 S. Broadway, Pittsburg, KS 66762, i-admit@pittststate.edu. The International Office will provide the appropriate application form and other information to assist the student in applying for admission. The international student may also apply online through links on our website http://www.pittststate.edu/office/international.
Admission requirements and procedures for international students are subject to change according to the recognized needs of students and the university. All international students are required by the Department of Homeland Security (DHS) to be full-time students. The DHS requires undergraduate students to complete at least 12 semester hours each fall and spring semester to maintain their student status.

A tuberculosis (TB) test is required and will be administered on campus when the student arrives on the Pittsburg State University campus before enrollment into classes will be permitted.

For Graduate Admission see link.

**TUITION AND FEES**

**UNIVERSITY FEES PER SEMESTER**

<table>
<thead>
<tr>
<th>UNDERGRADUATE FEES</th>
<th>Residents of Kansas</th>
<th>Non Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate students enrolled in 10 hours or more</td>
<td>$2747.00</td>
<td>$7525.00</td>
</tr>
<tr>
<td>Tuition and fees per credit hour for undergraduates enrolled in 9 hours or less</td>
<td>$197.00</td>
<td>$515.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRADUATE STUDENT FEES</th>
<th>Residents of Kansas</th>
<th>Non Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate students enrolled in 9 hours or more</td>
<td>$3082.00</td>
<td>$7259.00</td>
</tr>
<tr>
<td>Tuition and fees per credit hour for graduate students enrolled in 8 hours or less</td>
<td>$261.00</td>
<td>$609.00</td>
</tr>
</tbody>
</table>

**SUMMER SESSION**

<table>
<thead>
<tr>
<th>General Fee, per credit hour</th>
<th>Residents of Kansas</th>
<th>Non Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>$197.00</td>
<td>$515.00</td>
</tr>
<tr>
<td>Graduate</td>
<td>$261.00</td>
<td>$609.00</td>
</tr>
</tbody>
</table>

**CONTINUING STUDIES FEE**

| Instruction fee per credit hour--Undergraduate | $197.00 |
| Instruction fee per credit hour--Graduate | $261.00 |
| Distance fee, add to per credit hour fee | $18.00* |

*The Distance fee applies only to classes held an extended distance from campus. Non-resident students enrolled as a campus student and taking Continuing Studies courses will be charged the non-resident tuition rate. Part-time students enrolled in a degree program offered off-campus or on-line will pay the Continuing Studies tuition and fee rates.

This schedule of fees is for information purposes and does not constitute a contract. While this schedule was prepared with the latest information available on July 1, 2012, the statements on fees are subject to change. See [http://www.pittstate.edu/office/registrar/fees.dot](http://www.pittstate.edu/office/registrar/fees.dot) for current information.

**Residency Requirements**

Residency for tuition and fee purposes at a Kansas Regent’s institution is governed by the state of Kansas under statute K.S.A. 76-729. Adult persons enrolling in Pittsburg State University who have not been residents of the state of Kansas for 12 months prior to enrollment for any term are non-residents for tuition and fee purposes. As of July 1, 2006, if you can prove you were a resident for tuition and fee purposes within the last five years (60 months) and that you have returned to live in Kansas, you will be deemed a resident for tuition and fee purposes. (K.S.A. 76-729 as amended by 2007 HB 2185 10). A minor’s residency is determined by the parents’ residency status. For more information regarding residency, please visit [http://www.pittstate.edu/admission/undergraduate/residency.dot](http://www.pittstate.edu/admission/undergraduate/residency.dot)

**Reduced Tuition Programs**

**Gorilla Advantage Program**

The Gorilla Advantage program makes it possible for eligible students to automatically receive in-state tuition. To be eligible, an applicant must meet Pittsburg State University admission requirements and reside in or will graduate from an accredited high school in one of the following counties: Missouri – Barton, Barry, Bates, Cass, Cedar, Clay, Dade, Henry, Jackson, Jasper, Lawrence, McDonald, Newton, Platte, St. Clair and Vernon; Oklahoma – Craig, Delaware, Mayes, Nowata, Ottawa, Rogers, Tulsa and Washington; Northwest Arkansas – Benton and Washington. Students transferring from an accredited college/university must be a permanent resident of a Gorilla Advantage county. Attending college in a Gorilla Advantage county does not automatically qualify the student for this program.

Students qualifying for the Gorilla Advantage program based on residency must meet the twelve month requirement of living in the appropriate county. International students are not eligible for the Gorilla Advantage program.

**Midwest Student Exchange Program (MSEP)**

MSEP allows students who are residents of Illinois, Indiana, Michigan, Minnesota, Missouri, Nebraska,
North Dakota, and Wisconsin to attend Pittsburg State University at a reduced tuition rate of one and one-half times in-state tuition. Only applicants in the following majors are considered: Automotive Technology, Biology, Chemistry, Communication, Construction Management, Construction Engineering Technology, Electronic Engineering Technology, Exercise Science, Family and Consumer Sciences, Geography, Graphic Communications Management, History, Justice Studies, Music, Physics, Plastics Engineering Technology, Political Science, Recreation, Sociology, and Wood Technology.

To qualify for MSEP, the following requirements must be met (see http://www.pittstate.edu/admission/undergraduate/msep.dot):

- New Freshmen - Achieve ACT composite score of 21 or higher (SAT score of at least 980) and complete the Kansas Board of Regent’s Qualified Admission Curriculum with at least a 2.5 grade point average on a 4.0 scale.
- New Transfer Students - Have a minimum cumulative college grade point average of a 2.5 on a 4.0 scale with a minimum of 24 credit hours completed.

TUITION PAYMENT PROCESS

Tuition payment is due within one week of the first date of full-term classes for both the Fall and Spring Semesters and by the second day of class for most summer and short courses. Pittsburg State University offers many options for payment and encourages every student to explore federal financial assistance as an option as well as scholarships. Students may also enter into a payment plan through the Cashier’s and Student Account Office. We highly recommend you take the following steps and start the process well in advance of your enrollment to ensure that your tuition payment obligations will be met on time:

1. Complete the FASFA application available online at http://www.fafsa.ed.gov/. If enrolling as a less than half-time student, please contact the PSU Financial Assistance Office.
2. If receiving financial assistance (grants, loans, and scholarships), verify your enrollment online via GUS (see Applying for Financial Assistance) approximately three weeks prior to the semester start date.
3. Identify your tuition amount by logging onto GUS and visiting your Student Account link.
4. If a parent or other party is paying or needs access to your tuition information, provide this access through eProxy also found on GUS.
5. Plan ahead and review your options of paying your balance in full or initiate a payment plan at the Cashier’s and Student Account Office.

Multiple offices on campus are prepared to assist students with their tuition payment questions. Consider contacting Student Financial Assistance, Cashier’s and Student Accounts, or the Registrar’s Office with your concerns.

LATE ENROLLMENT FEE

Students who pay tuition after the deadline date as published in the University Calendar will be charged a late fee of $30.00. This includes students that enroll after the payment deadline in a course beginning at the start of the semester. Individual student exceptions may be made by the Registrar in instances of courses starting after the tuition payment deadline or delays in enrollment due to university procedures.

REFUND POLICY

A student who withdraws during the first week of the semester will be refunded all tuition.

A student who withdraws after the first week but during the first one-third of a semester will be refunded one-half tuition with the exception of laboratory and computer access fees.

A student who withdraws after the first one-third of a semester is not entitled to any refund.

Fees for private lessons are not refunded.

The refund policy shall apply to semesters. Prorated refunds will be applied to classes, or terms of shorter duration. (See university calendar).

RETURN OF TITLE IV FUNDS POLICY

Students who withdraw from the University after receiving Title IV funds including the Federal Pell Grant,
Supplemental Educational Opportunity Grant (SEOG), Perkins Loan, The Federal Loan Program, the TEACH Grant for education majors or Parent PLUS Loan may be required to repay a portion of the aid funds received.

The Office of Student Financial Assistance is required to recalculate financial aid eligibility for students who withdraw, stop attending or are dismissed prior to completing 60 percent of a semester using the following formula:

Percent of aid earned is calculated based on the number of days completed up to the withdrawal date divided by total days in the semester. Withdrawal date is defined as the actual date the student began the institution's withdrawal process through the Registrar's Office, the student's last date of recorded attendance, or the midpoint of the semester for a student who leaves without notifying the institution.

Federal financial aid is returned to the federal government based on the percent of unearned aid disbursed toward institutional charges for tuition, fees, and on-campus room and board.

When aid is returned, the student may owe a debit balance to the University and/or Department of Education Title IV Programs. If a student owes a debit balance to the Department of Education, payment arrangements will be made with the Department.

COMMENCEMENT FEE

Candidates for degrees or certificates pay a non-refundable fee to defray the cost of diploma and commencement activities. Commencement fees are:

- Associate and Baccalaureate Degree .............................................................. $55.00
- Masters and Specialist in Education Degrees ........................................ $65.00
- Dual degrees (ex. students receiving the Bachelor of Music Education and Bachelor of Music degrees simultaneously ...... $90.00
- Certificate of Completion ............................................................................. $55.00

Candidates who write a thesis for a master's degree pay an additional fee of $36.00 to defray the cost of binding four copies of the thesis. Candidates for the Specialist in Education degree pay an additional fee of $36.00 to defray the cost of binding four copies of the special project. This fee is not subject to refund.

TRANSCRIPT FEE

The university charges for all transcripts at the rate of $5.00 if mailed or picked up at the Registrar's office. Electronic transcripts are available for $8.00. See http://www.pittstate.edu/office/registrar/transcripts.dot for more information.

CHARGES RELATED TO NURSING

Students are required to purchase uniforms, liability insurance, National League of Nursing Achievement tests, course syllabi and laboratory kits. Students are also responsible for their own transportation to clinical areas.

INSUFFICIENT FUND CHECKS

A $30.00 charge is made for all insufficient fund checks written to the university.

Applying for Financial Assistance

Room: 103 Horace Mann
Telephone: 620-235-4240 or 1-800-854-PITT (toll free)
e-mail: finaid@pittstate.edu
http://www.pittstate.edu/finaid

The Office of Student Financial Assistance assists a diverse student population in obtaining financial aid to support their educational endeavors. Financial aid is provided through a combination of sources including scholarships, grants, loans, and part-time employment.

The university participates in all federal aid programs including PELL Grants, Supplemental Education Opportunity Grants, Army ROTC Scholarships, the College Work Study Program, and the Federal Direct Loan Program.

Free Application for Federal Student Aid (FAFSA)

Any student admitted to or attending Pittsburg State University is encouraged to apply early for financial aid. Entering students who wish to be considered for scholarships should file by February 1.

The online FAFSA application is used to determine the student's financial aid eligibility. Information used
determining eligibility includes family income, assets, number of family members, number in college, etc. The university will attempt to assist the student with the difference between the total expected family contribution and the cost of attending the university. Students are encouraged to apply as early after January 1 as possible at: http://www.fafsa.ed.gov.

Scholarship and Grants

Each year scholarships are awarded to incoming freshmen as well as to upperclassmen. Criteria employed by scholarship committees in making these awards are: past academic performance, leadership, character, and financial need. Some awards are based entirely on merit. The best way to find and apply for Pittsburg State University Scholarships is through our on-line application at http://www.pittstate.edu/affordability/scholarships/. If you do not wish to apply on-line, you may use the PDF Scholarship Application. Students interested in athletic scholarships should contact the Athletic Director. Applicants for music scholarships should contact the chairperson of the Department of Music.

Loans

The university participates in the following federal programs: Perkins Loan, Direct Subsidized Loan, Direct Unsubsidized Loan, Direct Additional Unsubsidized Loan, Direct PLUS Loan.

Federal Work-Study and Student Employment

A part-time job can be a valuable and rewarding experience. More than 900 Pittsburg State University students work on campus. Some part-time jobs require students to demonstrate financial need (federal work-study), while others are open to all students (regular state employment). Students work on the average of 15 hours per week. The university has an active referral system for part-time jobs. Listings are provided to the Student Employment Office, and referrals are made through the school year.

Short-Term Loans

Students who are in good standing and who have a temporary need for funds to pay school-related expenses may borrow a University Short Term Loan for a period not to exceed 90 days prior to 15 days prior to the end of the semester. Please see the Office of Financial Assistance on details of how to apply for these emergency funds.

Verification of Enrollment for Financial Aid

Disbursement of funds from financial aid and scholarships to a student’s tuition/fee and housing (if applicable) accounts can occur only after the student has verified enrollment via the GUS system. Verification access in GUS becomes available approximately 14 days prior to the beginning of the fall or spring semesters. Summer verification will be available approximately 7 days prior to the beginning of the summer term.

Enrollment

NEW UNDERGRADUATE STUDENT ENROLLMENT PROCEDURES

In order to enroll in coursework, students will need have access to the Gorilla User System (GUS), a web-based, real-time, interactive information portal specifically designed to allow users to securely access academic and administrative information. Some examples of the services available for students are Enrollment, Degree Audit, Personal Information, Unofficial Transcript, Grade Reports, Financial Assistance updates, Tuition payment, and Online Parking Permit. To use GUS, you must have a GusPIN. To apply for a GusPIN, bring a photo ID to the help desk (109 Whitesitt) or use the on-line password generator http://www2.pittstate.edu/ois/AcademicSvcs/gus.html.

Freshmen

All new students are strongly encouraged to participate in Pitt C.A.R.E.S. (Campus Advisement, Registration and Enrollment Services) to help ensure a smooth transition to the University. Students who are members of the most recent high school graduating class are required to attend C.A.R.E.S. Pitt C.A.R.E.S. is offered in the summer for students planning to enroll for the fall semester and in January for students planning to enroll for the spring semester. Advance registration is required. Additional information about Pitt C.A.R.E.S. including specific dates.
the program will be offered is available from the Office of Admission.

During Pitt C.A.R.E.S., each student receives information about the programs and services available at Pittsburg State University and meets with an academic advisor to choose classes and enroll in coursework for the upcoming semester.

A student who is enrolling as a freshman, but who is not required to attend a Pitt C.A.R.E.S. session, may enroll during open enrollment. Open enrollment begins immediately after early enrollment for current Pittsburg State University students and new transfer students has occurred, usually late November for a spring semester and late April for a summer or fall semester. The enrollment process begins in the Office of Admission where students are provided an advisement folder, new student checklist, and departmental contact information. The student then makes an appointment to meet with an academic advisor in his or her major area of study.

During the advising appointment, the student can expect to discuss course sequencing and selection, as well as planning for future semesters. Online enrollment in coursework may occur during the advising appointment or the advisor may provide an advisement number to the student to access the Gorilla User System (GUS) to enroll.

Transfer Students

Students transferring to Pittsburg State University are encouraged to participate in Transfer Pitt C.A.R.E.S. (Campus Advisement, Registration and Enrollment Services). Transfer C.A.R.E.S. is offered in April for students enrolling for the summer or fall semesters and in November for students enrolling for the spring semester. Transfer Pitt C.A.R.E.S. allows new transfer students to enroll earlier than new students not participating in this program. Advance registration is required. Additional information about Transfer Pitt C.A.R.E.S., including specific dates the program will be offered, is available from the Office of Admission.

During Pitt C.A.R.E.S., students receive information about the programs and services available at Pittsburg State University and meet with an academic advisor and enroll in coursework for the upcoming semester. During the advising appointment, the student can expect to discuss course sequencing and selection, as well as planning for future semesters. Online enrollment in coursework may occur during the advising appointment or the advisor may provide an advisement number to the student to access the Gorilla User System (GUS) to enroll. A transfer student may also enroll during open enrollment (see Freshmen for details).

Readmission

The student who has been away from the university for three or more semesters should first contact Office of Admission to be readmitted to the university. Upon readmission, the student may enroll during open enrollment. Open enrollment begins immediately after enrollment for current Pittsburg State University students and new transfer students has occurred. The enrollment process begins in the Office of Admission where students are provided an advisement folder, new student checklist, and departmental contact information. The student then makes an appointment to meet with an academic advisor in his or her major area of study.

During the advising appointment, the student can expect to discuss course sequencing and selection, as well as planning for future semesters. Online enrollment in coursework may occur during the advising appointment or the advisor may provide an advisement number to the student to access the Gorilla User System (GUS) to enroll.

Non-degree Seeking (undergraduate)

An undergraduate student who has been admitted as non-degree seeking may enroll during opening enrollment. Open enrollment begins immediately after enrollment for current Pittsburg State University students and new transfer students has occurred. Advising and enrollment will occur in the Office of Admission.

Continuing Students

A current student wishing to enroll for the upcoming semester may enroll during early enrollment week.
Early enrollment occurs in April for students enrolling for the summer and/or fall semesters and in November for students enrolling for the spring semester. Students are assigned a specific enrollment day based upon the number of college credit hours passed and may enroll on that day or any day thereafter.

A student seeking to enroll is encouraged to contact his/her advisor in advance of the assigned enrollment date to discuss course sequencing and selection and plan for future semesters. An advisement number is required to access the online enrollment system in GUS. Online enrollment in coursework may occur during the advising appointment or the advisor may provide an advisement number to the student to access the Gorilla User System (GUS) to enroll.

**Late Enrollment**

An admitted student who wishes to enroll in coursework, but who was not enrolled prior to the end of open enrollment, may seek special permission for late enrollment from the instructor of each course the student is seeking to take. Once permission is granted by the instructor via the GUS system, the student should go to the Registrar’s office to be enrolled. Payment for the coursework will be due immediately. Late fees will apply.

**Schedule Changes**

A student who has enrolled for an upcoming semester and wishes to add, drop or change sections of a course may do so during open enrollment (through the first week of classes for the fall and spring semesters) as long as the advisor has provided the student with a current advisement number or by contacting the Registrar’s office, 103 Russ Hall, 620-235-4200.

Once open enrollment is closed, it is necessary for the student to gain permission from the instructor(s) of each course to add a class. See Late Enrollment above.

**Schedule of Classes**

The schedule of classes becomes available to students in March for the Summer and Fall semesters and in October for the Spring semester. The schedule is available online only and can be accessed at [http://www.pittstate.edu/office/registrar/](http://www.pittstate.edu/office/registrar/).

**Selecting and Changing Academic Major**

Degree seeking students must select an academic major or declare exploratory studies upon initial enrollment in the university. It is strongly recommended that students have a declared major prior to attaining 60 credit hours.

A student may change majors in one of three ways: 1) consulting with an advisor in the department of the major to be declared, 2) making a request to change major to the Registrar’s office, or 3) using the Change My Major option in the GUS system. A new advisor will be assigned to the student in the new major area of study. Courses previously taken may or may not be accepted as part of the new degree program as determined by the department in which the new major is located. Once a student has an official degree check, only the Degree Checking office can change a major, minor or catalog.

**Academic Advising**

Each student is assigned an academic advisor by the chairperson of the student’s academic department at the time the student initially enrolls at the University. Students are required to consult with their academic advisor and to obtain an advisement number prior to enrolling for courses each semester or the advisor may choose to enroll the student (distribution of advisement numbers is at the discretion of each academic advisor).

The Office of First Year Programs has responsibility for students in the Exploratory Studies program and will assign advisors to students who have chosen to postpone the selection of a degree program while exploring the opportunities available and working to meet the general education requirements.

Students who wish to change advisors but retain the same department should request the assignment of a new advisor from the department chairperson.

**Responsibilities of Advisors**

The following responsibilities of advisors and advisees at Pittsburg State University was developed by the
University Advising Council and approved by the Vice President of Academic Affairs on November 11, 2005.

Pittsburg State University ensures a high quality of academic advising by maintaining that all academic advisors should:

1. Post appropriate office hours and always make time for students a priority during these hours and at other times as available.

2. Assist students in understanding all degree requirements including institutional, departmental, course sequencing and other pertinent information.

3. Never give out an advisement number without adequate contact with, and advisement of, each individual student.

4. Be proactive throughout the advisement process by initiating contact with advisees to communicate requirements and deadlines and to discuss their educational plan.

5. Learn to access and use enrollment information on the GUS system.

6. Project that you genuinely care about students by serving as a resource to help them clarify life, career and academic goals.

7. Know about and make referrals to support services as appropriate.

8. Be aware of policies, requirements, resources and materials necessary for students’ academic progress and achievement.

**Responsibilities of Advisees**

Successful academic advising requires active participation in the advising process by both the advisor and the student. As such, students seeking academic advisement should:

1. Make, keep and be on time for appointments with academic advisor at least one time each semester.

2. Review the online course schedule, program guides and course catalog to prepare a tentative schedule to discuss with your advisor prior to initiating contact.

3. Have alternative courses in mind, after all some courses do close.

4. Learn to access and use enrollment information on the GUS system.

5. Ask questions when you do not know and follow through on referrals made by your advisor.

6. Get to know your advisor and let him/her get to know you. This person is a valuable resource and can be of benefit to you not only while you are at Pittsburg State University, but also afterwards once you enter the job market or graduate school.

7. Remember that it is also your responsibility to be aware of graduation and degree requirements. Do your very best and accept responsibility for your academic decisions.

8. Be aware of policies, requirements, resources and materials necessary for your academic progress and achievement.

**Student Identification Card**

After enrolling in courses for the first time, students are required to obtain a student identification card, called the Gorilla Card. The Student Financial Assistance office will verify that a student has obtained a Gorilla Card prior to finalizing a student’s financial aid. For additional information on the Gorilla Card, visit [http://www.pittstate.edu/audiences/current-students/gorilla-card/](http://www.pittstate.edu/audiences/current-students/gorilla-card/).

**Verification of Enrollment for Financial Aid**

Disbursement of funds from financial aid and scholarships to a student’s tuition/fee and housing (if applicable) accounts can occur only after the student has verified enrollment via the GUS system. Verification access in GUS becomes available approximately 14 days prior to the beginning of the fall or spring semesters. Summer verification will be available approximately 7 days prior to the beginning of the summer term.
Academic Regulations

Final Examinations

Final Examinations

Final examinations will be given according to the schedule of examinations distributed by the Registrar each semester.

No tests or major assignments will be presented during the week prior to final examination week, unless identified in the course syllabus presented at the start of the semester.

Final Exam Overload Policy

Students who have three or more final exams officially scheduled for a single day are entitled to arrange with the faculty member instructing the highest numbered course (the 3 digit number following the department code) a different day for the exam. If two courses have the same number, the course with the lower enrollment would be rescheduled.

The student requesting accommodation should submit this request on the form provided on the Registrar’s web page
http://www.pittstate.edu/office/registrar/forms.dot
along with a copy of his or her class schedule, at least two weeks prior to the beginning of final exam week. The faculty member has until the Monday of pre-finals week to arrange a mutually convenient time for administration of the final exam. If the matter cannot be resolved between student and faculty member, the student may take the request to the Office of the Provost, 220 Russ Hall, no later than the Wednesday of pre-finals week.

ENROLLMENT POLICIES

Required Courses for Freshmen

Considering the fundamental nature and value of the freshman courses in English Composition, it is the policy of Pittsburg State University that all full-time freshman students shall enroll in ENGL 101 English Composition unless given credit by examination or the student has previously completed the course at an accredited United States college, and UGS 100 The Freshman

Course Numbering and Upper Division Courses

Pittsburg State University courses are numbered as follows:

000-099 Non Credit Courses
100-299 Undergraduate, Lower Division
300-699 Undergraduate, Upper Division
700-799 Graduate I. (Primarily for graduate students, although some upper level undergraduates can enroll.)
800-899 Graduate I
900-999 Graduate II

Graduate I courses are at masters degree level. Graduate II courses, are at the post-master level.

Students shall enroll for courses in an orderly sequence that recognizes the interdependence and progression of the acquisition of knowledge. Therefore, students must meet prerequisites as identified by the faculty for specified courses and must meet grade point requirements for admission to upper division courses as follows:

a. Courses numbered 700-799 require 170 grade points. These courses are primarily for graduate students.

b. Courses numbered 800-899 require admission to graduate studies.

c. Courses numbered 900-999 require admission to postmaster graduate studies.

Enrollment in Courses Above Freshman-Sophomore Level

1. Admission to courses numbered 700-799 requires 170 grade points. These courses are primarily for graduate students.

2. Admission to graduate courses (numbered 800-899) requires admission to the Graduate School.

3. Admission to courses numbered 900-999 is open only to students with a master’s degree.
Normal Academic Load/ Course

Overload Policy

The typical course load for a full-time undergraduate is between 15 and 18 semester hours in a regular semester (or a proportionate number of hours in a summer session). A student who wishes to enroll in more than 21 hours must have demonstrated solid academic achievement (normally a 3.00 cumulative GPA or above) and receive special permission from his or her dean.

Definition of a Credit Hour

Policy Statement

As an institution of higher education, Pittsburg State University holds the responsibility for determining and upholding standards associated to the awarding of credit hours for student work consistent with national standards. At Pittsburg State University, a credit hour represents at least a minimum level of student achievement of specific learning outcomes, as verified by an assessment of student work. Pittsburg State University’s definition of the credit hour establishes a basis to quantify academic activity for purposes of awarding academic credentials and determining federal funding, including institutional eligibility, program eligibility, and student enrollment status and eligibility.

Procedures and Responsibilities

Pittsburg State University defines one credit hour as:

1. A level of student learning demonstrated by the achievement of learning outcomes obtained through one hour of classroom or direct faculty instruction and a minimum of two hours outside of class student work each week, for approximately 15 weeks, or the achievement of equivalent learning outcomes over a different length of time; or

2. A level of student learning demonstrated through academic activities other than classroom or direct faculty instruction as equivalent to that stated in #1, above. For example, such equivalence may be demonstrated by faculty assessment of student knowledge, skills, and abilities in relation to stated learning outcomes through laboratory work, internships, practica, studio work, and/or independent research activity, and judged to meet standards established through recognized disciplinary or accrediting bodies, peer institutions, or other established methodology to affirm equivalency, so long as those standards have been formally accepted by Pittsburg State University through its curricular approval process.

Definition of Hybrid Course

Hybrid Courses provide a minimum of 50% of the instruction (course material, discussion, evaluation) on-line through the learning management system. This does not include courses that are by appointment, independent study, or do not provide a learning experience on-line. These courses must have established classroom (face-to-face) meeting dates listed in the Schedule of Classes at the time the course is listed. Courses will have the media fee charged to the student.

Definition of On-Line Course

On-Line Courses provide 100% of the instruction (course material, discussion, evaluation) on-line through the learning management system and do not require attendance on campus. This does not include courses that are by appointment, independent study, or do not provide a learning experience on-line. These courses will have the media fee charged to the student.

Adding Courses

Students may enroll or add courses through the fifth day of a regular semester or proportionate time period for a summer session. See University Calendar for summer session deadlines.

Enrollment deadlines vary for short courses that begin later in a semester.
Dropping a Course or Withdrawing from the University

<table>
<thead>
<tr>
<th>Timeframe*</th>
<th>Academic notation for course drop</th>
<th>Academic notation for withdrawal from all courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through 10th day of classes</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>11th day of classes through end of 11th week of semester</td>
<td>“W” (does not affect GPA)</td>
<td>“W” for each course (does not affect GPA)</td>
</tr>
<tr>
<td>Beginning of 12th week</td>
<td>Individual courses cannot be dropped</td>
<td>“W” or “F” in each course as assigned by instructor. “F” grades calculated in GPA.</td>
</tr>
</tbody>
</table>

*Timeframe is for a full-term course in a regular fall or spring semester. Proportionate deadlines apply to summer sessions and less than full term courses. See University Calendar for summer session deadlines.

A student who does not officially withdraw from a course or from the university will be given an “F” grade in the course or courses concerned. These “F” grades will be included in the computation of the grade point average.

The dates for withdrawal from courses which run less than sixteen weeks shall be set to proportionate time periods.

Exceptions to this policy may be appealed through the Student Faculty Committee of the Faculty Senate.

Class Attendance Policy

Students at Pittsburg State University are expected to attend class regularly and participate fully in class activities. It is the responsibility of the course instructor to set the attendance policy for his or her courses and communicate that policy to students in the course syllabus. The syllabus should address whether and how attendance affects the course grade, the issue of excused absences, and whether students will be dropped for nonattendance or excessive absence.

As noted above, students who have not attended or who have been excessively absent from a class may be dropped from the course by the instructor. In such instances, this policy must be clearly stated in the syllabus and uniformly enforced. Students may be dropped at anytime in the semester based on course policy, but instructor drops after the beginning of the 12th week of a full semester class will result in a grade of “F” for the course.

Regardless of the faculty prerogative to drop a student for nonattendance or excessive absence, the ultimate responsibility for monitoring and maintaining up-to-date course enrollment rests with the student.

Enrollment as an Auditor

Each auditor must have a permit to audit from the University Registrar and authorized by the course instructor. A permit may be issued to regularly enrolled students, as well as students enrolled to audit only. Auditors will be charged a $1.00 per credit hour fee when the permit is issued. This fee is not refundable. Persons over 60 years of age may audit, on a space available basis at no charge. All persons who audit courses are admitted as listeners only and are not entitled to participate in class activities except as listeners. No transcript or record is made of audit enrollments.

Courses offered by Continuing Studies are not offered for auditing purposes.

Duplication of Undergraduate Credit

Duplication of a course differs from repeating a course. Duplication occurs when a student enrolls in a course previously completed with a grade of “A” or “B” or an otherwise non-repeatable class. In such instances the first grade and associated grade points remain on the transcript and the latest course has no credit awarded.
**Credit by Examination**

**In General**

Pittsburg State University grants credit by examination for three purposes: in order to enable a student to demonstrate that a body of knowledge or skill has been attained, to validate life experiences which parallel course work offered by the university, and to gain credit for work completed at an institution not accredited by a regional accrediting institution.

Students awarded credit by examination must be enrolled at Pittsburg State University.

Pittsburg State University accepts results of the College Entrance Examination Board Advanced Placement and College Level Examination Programs for credit by examination. Pittsburg State University is not a College Board Test Center, thus, students who participate in these programs have their test results forwarded to the university.

Department curriculum committees recommend the courses and the number of credit hours in which credit by examination is awarded. Departments with no curriculum committee will function as committees of the whole. Recommendations for credit by exam must be ratified by the department faculty and chairperson.

The results of all tests administered for the purpose of credit by examination will be recorded as pass, fail, or letter grade on the students transcript. Students taking Pittsburg State University departmental examinations may elect to accept or not to accept the grade assigned.

Courses receiving pass as a grade for credit by examination will not be used to determine students' GPA. Courses for which letter grades are awarded will be used to determine students' GPA.

The registrar will post credit by examination to the students' transcripts at the direction of the appropriate departmental faculty.

**Advanced Placement Program of the College Board**

Subject to department approval, students completing the Advanced Placement examination with scores of 5, 4 or 3 may receive appropriate university credit recorded as pass.

The results of AP examinations must be sent to Pittsburg State University directly from the College Board. There is no fee charged by Pittsburg State University for evaluating or posting the results of AP examinations.

**College Level Examination Program (CLEP)**

The general examination and subject examinations are accepted at Pittsburg State University to validate previous learning for academic credit provided the credit does not represent a duplication of college credit previously earned. Academic departments determine the norm group and the percentile at or above which credit will be awarded. Typically, credit is awarded for scores starting at the 50th percentile. There is no fee for evaluating or posting the results of the CLEP general examination.

A maximum of 6 semester hours credit can be earned in each of the following areas: social science-history, natural sciences, humanities and mathematics.

**Military Service**

Pittsburg State University generally follows the recommendations of the Office of Educational Credits listed by the American Council of Education (ACE). Advanced standing credits, as noted on the student's military transcript, will be given to veterans for formal service school courses on the basis of the ACE. No more than 30 credit hours will be applied toward graduation for credit earned by correspondence and/or extension.

**Departmental Examinations**

Departmental examinations are available for both placement and credit and are available by special arrangement through the individual academic department involved. No fee is charged for departmental examinations. The department will establish the maximum number of credit hours that may be earned by taking departmental examinations and set the standards for awarding and determining grades. These standards may vary from year to year.
The Department of English offers the Writing Skills Assessment examination for interested students. Students who score at least a 4 are eligible for credit for ENGL 101 English Composition. In addition, credit for ENGL 101 English Composition is offered to students who score a 27 or higher on the ACT English subscore. For more information regarding the examination procedures in the English Department, please visit http://www2.pittstate.edu/engl/.

Retroactive credits are available through the Modern Languages and Literatures Department. Students must sign up for the Retro-Credits Program through the department during the first three weeks of the semester in which they take their first language course. That course determines their entry level and the maximum credits they can earn through retroactive-credits. Transfer students who took language courses at another university or college are not eligible. The maximum number of hours in which students receive retroactive-credits is 15. For more information, please visit http://www2.pittstate.edu/flang/.

**Grades and the Grading System**

**Awarding of Grades**

Grades are earned by students and awarded by faculty. Grade changes can only be made by the instructor with the approval by the department chairperson and the dean of the college.

**The Grading System**


A  Excellent achievement, credit given, four grade points per semester hour.

B  Above average achievement, credit given, three grade points per semester hour.

C  Average achievement, credit given, two grade points per semester hour.

D  Below average achievement, credit given, one grade point per semester hour.

P  Passing work (equivalent to “A”, “B”, “C”, “D” achievement), credit given, zero grade points per semester hour. This grade is not used in the computation of the grade point average.

F  Failing work, zero credit given, this grade is given at the end of the semester or if the student withdraws from the university after the last day of the eleventh week and is doing failing work. Zero grade points given per semester hour. Counted as a course attempted. Included in computation of grade point average.

XF  Indicates the “F” was the result of academic dishonesty. Zero grade points given per semester hour. Counted as a course attempted. Included in computation of grade point average.

IN  Incomplete grade is to be utilized in rare instances when a student is unable to complete a course due to circumstances beyond his/her control. The student must have successfully completed a majority of the course work to be eligible. The instructor must state clearly in writing what is needed to successfully complete the course. This information will be provided via GUS to both the student and the department chairperson. The plan cannot require the student to repeat the course as an option for removing an “IN” grade. Instructor must provide the grade the student would earn if no additional work is completed by entering a grade of “IB” “IC” “ID” “IF”, **calculating the missing work as zero grades.** The second letter supplies the default grade that will replace the “IN” grade at the end of one full subsequent fall or spring semester if no additional work is completed. Instructor permission may extend the semester deadline up to one year beyond the initial deadline. If the student opts to graduate prior to the allowed deadline for removal of an incomplete, the default grade will be recorded, and the student may not complete the work to achieve a higher final grade after graduation.

IP  In Progress, zero credit given, zero grade points per semester hour. Temporarily recorded as a grade when a student is enrolled in a course that requires the student to engage in projects that extend past the end of the semester. The “IP” signifies that the faculty member acknowledges the student is enrolled in a long term project and that the project is not yet complete.
Credit is postponed and the course is not included in the student’s grade point average. An In Progress course must be satisfactorily completed within one year from the date the “IP” was given. An In Progress not removed within one year shall be regarded as a failure and the “IP” grade will be changed to “F” and included in the computation of the student’s GPA.

Courses to be established for the use of the “IP” grade must be legislated through department/college curriculum committees and the Faculty Senate/Graduate Council. Courses can be legislated to be excluded from the one-year regulation of changing to “F” if the course is not completed.

W Withdrawal, zero credit, zero grade points per semester hour. This grade is not computed in the grade point average. This grade is given under two conditions: 1) when a student withdraws from a course prior to the end of the eleventh week; 2) when a student withdraws from the university after the last day of the eleventh week and is passing.

NC No Credit, zero credit given, zero grade points per semester hour. No credit given (does not necessarily imply failure).

Grade Point Average

Earned grade points are computed by multiplying the point value of “A”, “B”, “C”, “D”, “F” and “XF” grades earned by the number of credit hours of the course(s) in which the student was enrolled. \( A=4, B=3, C=2, D=1, F=0, XF=0 \). Grade Point Average is computed by dividing total grade points by total credit hours. Grades of “P” earned in "Pass-Fail" courses are not used in the computation of the GPA.

When a student repeats a course, only the last grade earned is computed in the student's GPA. Grades earned on the first attempt will continue to appear on the transcript but will be marked as a repeat and will not be calculated in the GPA. Grades of “P” earned in "Pass-Fail" courses are not used in the computation of the GPA. Grades of “F” earned in a "Pass-Fail" course are used in the computation of the GPA. Grades of “IN”, “IP”, “NC”, and “W” are not used in the computation of the GPA.

Mid-Semester Report of D and F Grades

After the eighth week of the fall and spring semester, mid-semester “D” and “F” grades submitted by faculty are reported by the Office of the Registrar to the dean of the college in which the student is completing a major. All “D” and “F” grades submitted by faculty will be reported by the Registrar to the student and the student's academic advisor through the on-line student information system (GUS). No mid-semester report of “D” and “F” grades are distributed for the summer session.

Final Grade Report

Final grades are reported to the Registrar’s Office at the conclusion of the course. Students may access their grades via GUS (see New Undergraduate Student Enrollment Procedures) on their on-line transcript immediately upon grade posting. Grade reports are mailed by the Registrar’s Office upon the student’s request.

Grade Appeals

Final course grades are to be awarded upon criteria communicated to the student at the beginning of the semester. Additional work after a final grade was submitted cannot be used to change the grade.

If the student believes that an error has been made in the assignment or recording of a final grade, the student should first confer with the instructor. If such a conference does not resolve the problem, a grade appeal form must be submitted to the head of the academic department that offers the course in question. This appeal form must be submitted no later than six weeks after the beginning of the fall or spring semester immediately following the semester in which the grade being appealed was received.

The appeal form is available online on the Registrar’s Office and Graduate School’s webpage under forms.

Repeated Courses

Only courses in which “C”, “D”, or “F” grades have been earned may be repeated. Students may not repeat a
course failed in resident study via an on-line course or credit by exam.

Grades earned on the final attempt will be used in computing the GPA. Grades earned on all previous attempts will continue to appear on the transcript, but will be marked as repeated and will not be calculated in the GPA.

Pass-Fail System of Grading

The Faculty Senate adopted the pass-fail system of grading certain courses under certain conditions.

I. Courses legislated on a pass-fail basis only may not be taken for a letter grade. These are noted in the course description.

II. Other courses:

Students may elect to take other courses with only a “P” or “F” grade being recorded. Such a system is advantageous to students since they may take courses that they may not otherwise attempt because of competition. Only free electives may be taken under this system of grading. The following conditions or restrictions apply:

A. Eligible students:

1. Those with at least junior standing (60 hours).
2. Those not on academic warning.
3. Those who have declared a major.

B. Courses which would be ineligible:

1. Courses used to fulfill the general education requirements.
2. Courses used to fulfill the student’s major or minor requirements.
3. Supporting courses required by a student’s major department.
4. Courses which have been attempted for a letter grade.

C. Exceptions when Pass/Fail would be acceptable:

1. Credit earned by CLEP, Advanced Placement (AP), International Baccalaureate (IB) regardless of the course.
2. Study Abroad credit if agreed upon in advance by the student, chairperson and Transcript Analyst.
3. International student transfer credit from international colleges and universities.

D. Other regulations:

1. A student is allowed one course per semester with a maximum of four courses on the pass-fail basis.
2. At the time of enrollment a student must apply to the registrar for approval to take a course on a pass-fail basis. The grading option may not be changed after the last day for adding new classes.
3. A student taking a pass-fail grading option would receive a grade of “P” or “F” for the course with a “P” (pass) being given for any grade of “D” or higher with respect to the rest of the class.
4. Grades of “P” earned under pass-fail are not used in the computation of a student’s grade point average. Grades of “F” earned under pass-fail are used in the computation of a student’s grade point average. Courses passed are counted in the total courses required for graduation.
5. A student who has received a pass in a course may not repeat the course for a letter grade.

Transcripts

A transcript is a certified, official copy of a student’s permanent academic record. The transcript reflects courses and grades in accordance with academic regulations as listed in the University Catalog. The transcript cannot be altered at the request of a student. The entire transcript will be prepared each time a transcript is requested.

Transcripts may be requested from the Registrar’s Office. Transcripts are charged at the rate of $5.00 for mailed transcripts, $5.00 for transcripts picked up at the Registrar’s Office, $5.00 for domestic faxed transcripts, $9.00 for international faxed transcripts and $8.00 for electronic transfer. No transcript will be provided if the student has not met their financial obligations to the university. Disciplinary actions are not recorded on academic transcripts. Additional information may be found at:

**ACADEMIC STANDING AND PROGRESS**

**Classification of Students**

- Freshman: Less than 30 hours passed
- Sophomore: 30 hours passed
- Junior: 60 hours passed
- Senior: 90 hours passed

**Academic Good Standing**

An undergraduate student in academic good standing is a student who has not received an academic warning nor has been dismissed for academic reasons and who has earned a total number of grade points that will average to within four grade points of 2.00.

**Satisfactory Academic Progress**

Undergraduate students are considered as making satisfactory academic progress, if they have not been academically dismissed or are not on academic warning. Undergraduate students who are enrolled full time are considered as making satisfactory academic progress, if they are not on academic warning and complete at least a minimum number of semester hours credit permitting them to graduate in ten semesters, if working toward a baccalaureate degree and five semesters, if working toward an associate degree.

**Dean's Scholastic Honors**

To qualify for Dean's Scholastic Honors, a student must:

a. Complete at least 12 semester hours (or at least 6 semester hours during a summer session),
b. Receive a GPA of 3.60 for all credit course work that semester or summer session, and
c. Have no grade lower than “B” and no grade of “IN” in any course during that semester or summer session.

The Office of the Registrar will compile the list of Dean's Scholastic Honors recipients and inform both the dean and the student of the award.

Dean's Scholastic Honors will be noted on the student's grade report and transcript.

**All A Scholastic Honors**

To qualify for All “A” Scholastic Honors, a student must:

a. Be enrolled for at least 12 semester hours (or at least 6 semester hours during a summer session), and
b. Receive a grade of “A” in all credit course work for that semester or summer session.
c. Have no grade lower than “A” and no grade of “IN” in any course during that semester or summer session.

All “A” Scholastic Honors are awarded each semester or summer session. The Office of the Registrar compiles the list of All “A” Scholastic Honors recipients and informs both the deans and the students of the award.

All “A” Scholastic Honors will be noted on the student's grade report and transcript.

**Part-time Student Scholastic Honors**

To qualify for Deans' Scholastic Honors, a part-time student must:

a. Accumulate at least 12 semester credit hours of 3.60 during the most recent consecutive enrollments,
b. Have no grade lower than “B” and no grade of “IN” in any course for the most recent consecutive enrollments, and
c. Grades of “P” are not counted toward the 12 semester credit hours.

To qualify for All “A” Scholastic Honors, a part-time student must:

a. Accumulate at least 12 semester credit hours of 4.0 during the most recent consecutive enrollments,
b. Have no grade lower than “A” and no grade of “IN” in any course for the most recent consecutive enrollments, and
c. Grades of “P” are not counted toward the 12 semester credit hours.

Once a part-time student has earned Scholastic Honors, the student must complete an additional 12 credit hours before the student is considered again for Scholastic Honors. The student must meet all the above criteria at the time of subsequent consideration.

**Academic Warning and Dismissal**

A student whose cumulative grade point average at the end of a regular semester or the summer session falls below the GPA standard for retention in the university will be placed on academic warning. Academic Warning and Dismissal are based on the following standards:
To avoid suspension while enrolled and on academic warning, the student must earn a 2.00 semester GPA or raise the cumulative GPA to the retention standard for hours attempted. Failure to meet either of these criteria will result in academic dismissal.

Once dismissed, a student is not allowed to enroll for at least one regular semester (fall/spring) before being considered for reinstatement by the dean of the academic college in which he or she wishes to major.

A senior (90 hours earned) who is academically dismissed may be reinstated without remaining away from the University for a semester at the discretion of his or her academic dean. This student will continue under academic warning. The senior exception may be granted only once.

**Academic Reinstatement**

Students who are academically dismissed are not permitted to re-enroll at the university until one full semester (fall or spring) has elapsed after the date of the dismissal. At the conclusion of one full semester of dismissal, the student may petition for reinstatement to the dean of the student's college. Each petition will be considered on its own merit. Reinstatement is not automatic. Seniors may be granted one exception to the full-semester away at the discretion of his or her academic dean.

**Academic Fresh Start**

Academic Fresh Start allows returning undergraduate students with poor or marginal academic records to resume work towards an undergraduate degree without the detriment of their past academic performance in college. Although previous courses and grades will remain on the student’s transcript, if granted Academic Fresh Start, the calculation of grade point average (GPA) and credit hours earned is based solely on work completed after Fresh Start. This policy is designed for students who have gained maturity through extended experience outside of educational institutions and who have decided to return to the University. Academic Fresh Start is not an option for every returning student.

Six conditions must be met by the student:

1. Has not been enrolled in any institution of higher education for at least four years.
2. Is pursuing first undergraduate degree.
3. Is reinstated by the Dean of the College where the student will be majoring as described in the reinstatement policy if returning after being academically dismissed.
4. Submits a petition to the Dean of the College in which the student will be majoring describing the reasons for past poor performance and outlining an academic plan that includes the declaration of a major. Academic Fresh Start can be granted only once. Petition form may be found on the Registrar’s webpage [http://www.pittstate.edu/office/registrar/forms.dot](http://www.pittstate.edu/office/registrar/forms.dot)
5. Forfeits all credit earned prior to Academic Fresh Start.
6. Enrolls and completes at least twelve hours at PSU with a 2.0 GPA before Academic Fresh Start is recorded on the transcript.

Once approved, the student’s record will carry a notation stating when the Academic Fresh Start was granted and that the calculation of GPA and credit hours earned begins with that date. Students applying for readmission under Academic Fresh Start must meet admission requirements established by the individual colleges.

**Graduation**

**Undergraduate GPA Requirements**

Since a “C” average is required on total hours attempted for graduation, on major courses, and courses taken in residence (see Requirements for All Baccalaureate Degrees), a student’s record should reflect progress toward that level of achievement. A “C” average at Pittsburg State University requires two grade points for each hour attempted on recorded grades of “A”, “B”, “C”, “D”, or “F”, except those “C”, “D” or “F” grades that have been cancelled by a repeat enrollment. “F” grades earned under Pass-Fail are used in the computation of a student’s grade point average. When a student repeats a course for the purpose of raising a “C”, “D” or “F” grade, only the last grade
earned shall be counted and computed in the student's cumulative grade point average. Grades earned on the first attempt will continue to appear on the transcript but will be marked as a repeat and will not be calculated in the GPA. A student will lose credit for a “C” or “D” grade repeated with a grade of “F”, or a “C” grade repeated with a grade of “D”.

Writing to Learn Program

For a description of the Writing To Learn Program see Writing to Learn Requirement.

Catalog Expiration Date

A student must complete the degree requirements of the most recent Pittsburg State University catalog in effect at the time of the student's first matriculation at any college or university, provided that the catalog has not expired. A student may also select any subsequent catalog, provided that the catalog has not expired.

This 2012-2013 University Catalog will expire at the end of the 2018 summer session for students who take their first college course fall semester 2012 or before. Those students who take their first college course after fall 2012 will have six years to complete their degree under the 2012-2013 University Catalog.

University Scholastic Honors

There are three levels of University Scholastic Honors: Summa Cum Laude, Magna Cum Laude, and Cum Laude.

University Scholastic Honors are based on the student's cumulative grade point average at the time of the first baccalaureate graduation. University Scholastic Honors are not awarded for a second baccalaureate degree. To qualify for University Scholastic Honors, a student must have a cumulative grade point average equal to or greater than 3.95 for Summa Cum Laude, 3.90 for Magna Cum Laude, and 3.85 for Cum Laude.

The Office of the Registrar, as an agent of the faculty, will determine the student's qualifications for University Scholastic Honors.

Departmental Academic Honors

PURPOSE:

The Departmental Academic Honors Program is designed to challenge students with superior academic abilities. The program provides an opportunity to develop a deeper understanding of an academic area through independent study and close faculty-student association. Projects should provide the student the opportunity to develop critical thinking skills, data analysis skills, research skills within their discipline, and/or the ability to present in a public and professional setting. Students who complete the requirements outlined below graduate with the distinction of “With Departmental Academic Honors” noted on their transcript.

Departmental Academic Honors are awarded to students who:

1. Maintain a cumulative 3.5000 GPA.
2. Complete a minimum of nine semester hours of credit designated as taken for honors in the student’s major department.

What is a departmental academic honors contract?

A departmental academic honors contract is a mechanism for adding an “honors dimension” to a department course in the student’s major. The contract project should add an academic dimension to the course by introducing new material or by allowing the student to go into greater depth than normally required in some aspect of the course.

How are honors contracts related to grades?

The honors contract does not affect the student’s grade in the course. No project/paper and/or course shall be accepted with a grade less than B. To receive honors credit for the course, however, the student must earn a grade of “A” or “B” in the course in addition to completing the contract in a satisfactory manner. All incompletes must be finished no later than four weeks after the completion of the semester they are given. In extreme circumstances, the professor involved with the project can request an extension of the committee, and this request must be in writing and provide a significant
reason why the project needs to be carried longer than the four week window. In any case, no project will be carried any longer than one semester. Students are not allowed to submit an application for another Departmental Honors Project until any previous incomplete has been finished.

How much work should an honors contract involve?

The honors contract project should be one that encompasses around 20 to 25 hours of work. In the case of courses which carry a credit hour other than three credits, the scope of the project should be adjusted accordingly so that the depth and length of the project is congruent with the number of credit hours being taken. For instance, a seven credit hour course in Nursing should have a project at least twice the scope of a three credit hour course project. Conversely, a two credit hour course project would then have a bit less scope than a three credit hour course project.

What kinds of projects can be involved?

The departmental academic honors contract is designed to foster creativity in projects which are acceptable both to the honors student and the professor. The examples given here are just that—examples. While the scope and length of the project is up to the respective College Departmental Academic Honors Committee to establish, the following list is presented to provide some historical perspective on past projects accepted by the Faculty Senate Departmental Academic Honors Committee. The list is not in any way intended to limit the scope or nature of projects.

- Class/Public presentation of research undertaken for the honors contract project. Typically in the range of 20-30 minutes, accompanied by a power point presentation or some other sort of visual aid
- Original computer program or project
- Original musical composition, sculpture, theatrical script, or other work of art, or recital of musical work (s) that is beyond the normal scope of the degree requirements for the major
- Additional laboratory experiments or mathematical problems, followed by written report, typically at least 5-8 pages in length
- Research paper or written report (usually 8-12 pages) based on interviews, library resources on a topic related to the course, a biography of a famous person in the academic field, or a review of additional readings (books, articles) related to the course

In the case of all written documents and presentations, an appropriate bibliography is required.

Students who participate in the Departmental Academic Honors Program are encouraged to enter the annual Research Colloquium sponsored each spring term by the Office of Graduate and Continuing Studies.

How many contracts are possible in a semester?

Students are limited to one Departmental Academic Honors project per semester or summer session. Exceptions are permitted only with special permission the College Departmental Academic Honors Committee.

What are the procedures and deadlines?

Students must formally elect to take a course for honors within the first one-fourth of the length of the course by completing the Enrollment For Departmental Academics Honors form and submitting it to the Registrar’s Office, Room 103 Russ Hall. Please utilize the linked form found at http://www.pittstate.edu/office/registrar/departmental-academic-honors.dot. The Departmental Academic Honors Committee requires that the application be typed. Handwritten forms will not be accepted.

Reporting Honors Contract Results

Contract results are reported to the Registrar’s Office when the professor enters the student’s grade for the course.

Any exceptions to the above guidelines must be approved by the Honors Committee of the Pittsburg State University Faculty Senate.

The Honors College

For a description of The Honors College see link.
Commencement

Public conferring of degrees occur at commencement ceremonies held at the conclusion of the spring semester for spring and summer graduates and at the conclusion of the fall semester for fall graduates. Additional information regarding commencement at Pittsburg State University can be found at http://www.pittstate.edu/office/registrar/commencement.dot.

Diplomas

Diplomas are awarded to graduating students each semester and summer session upon graduation of the student. The diploma is dated with the end of semester date. The diploma is imprinted with the name of the degree awarded and the student's major. Minors or emphases are not printed on the diploma. Holds placed on a student's record from any department must be cleared before the diploma can be released. A replacement diploma may be issued upon a request from the original holder which certifies to the loss or damage of the original diploma. A charge is made for each replacement.
Student Rights and Responsibilities

Definition of Student Status
Any person actively pursuing a course of study is considered to hold student status. For the purposes of these and other regulations, a student is further defined as one who is currently enrolled at the university or has completed the immediately preceding term and is eligible to enroll for the next term.

Duration of Student Status
In the broadest context, an individual is termed a student of Pittsburg State University from the time of admission in any status to the university until such time as formal association with the university ceases.

Undergraduate Students
Students enrolled exclusively in undergraduate courses will be considered undergraduate students.

Graduate Student
Students enrolled exclusively in graduate courses and who possess a baccalaureate degree will be considered graduate students.

In cases where a student is enrolled in both undergraduate and graduate courses and possesses a baccalaureate degree, he/she will be considered a graduate student. In cases where the student is in his/her last semester of undergraduate enrollment and does not possess a baccalaureate degree, the student will be considered an undergraduate.

Educational Equity and Access to Higher Education
Pittsburg State University is committed to a policy of educational equity. Accordingly, the university admits students, grants financial aid and scholarships, conducts all educational programs, activities and employment practices without regard to race, color, religion, sex, national origin, sexual orientation, age, marital status, ancestry, or disabilities.

In accordance with Kansas statutes and policies of the Board of Regents, the university is open to all persons who qualify according to the Pittsburg State University admission standards. These standards are defined and made available in the undergraduate and graduate section of this University Catalog.

Financial Obligations
Pittsburg State University adopted the following practices concerning any student who has an outstanding obligation to the university. (1) The student will not be permitted to enroll for a new semester if he has an outstanding obligation due the university for a previous semester. (2) The student may not obtain a transcript nor have a transcript sent to any party if he has an outstanding obligation due the university. (3) The student may not obtain their diploma if he has an outstanding obligation due the university. Students wishing to appeal a financial obligation decision may do so as outlined in the Office of the Provost Memorandum 81-10.

Instructional Rights and Responsibilities
Students have the right to know the goals, objectives, regulations, and grading practices of the course in which they enroll at the beginning of the course.

Students shall be free to take reasoned exception to the data or the views offered in any course of study but they are responsible for learning the content of any course in which they are enrolled.

Students have protection through orderly procedure against improper academic evaluation. Procedures for exercising the right of appeal are defined by the institution and made available to all members of the academic community through departmental chairpersons.

Class Attendance
Students at Pittsburg State University are expected to attend class regularly and participate fully in the activities of that class under the guidance of a university instructor. The instructor is responsible for setting and communicating to the students the attendance requirements for each class.
**Class Absence**
Students are responsible for clearing their absences with each instructor. The Office of Campus Life and Auxiliary Services will notify instructors of unusual circumstances of health or family problems if absences are in excess of three days.

**Absence Due to Military Leave**
Students are expected to schedule military training duty at times other than those that conflict with academic work.

In the event students must attend military reserve training duty during a semester or summer session, they must receive special permission to be absent prior to completing enrollment and from each instructor whose class will be missed. Instructors are not expected to give approval if they do not wish to do so. However, if absence from classes is granted, the instructor may make appropriate assignments in lieu of the classwork.

**Privacy Rights**

**Rights Under FERPA**

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.

Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested by the student the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Pittsburg State University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:
Family Policy Compliance Office  
U.S. Department of Education  
600 Independence Avenue, SW  
Washington, DC 20202-4605

Directory Information

The university from time to time publishes several bulletins, lists, brochures, catalogs, directories, yearbooks, annuals, guidebooks, news releases, sports information, honor rolls, etc., containing information that specifically identifies students and information about them. The university is authorized to publish, and will publish, such Directory Information, collectively or individually, unless a student within a reasonable time after the start of the semester notifies the Student Privacy Office (Registrar, 103 Russ Hall) in writing that all of the categories listed below (designated Directory Information) should not be released without prior written consent. The following information is considered Directory Information.

1. Student name  
2. Address  
3. Telephone listing  
4. Electronic mail address  
5. Parents and next-of-kin information  
6. Date and place of birth  
7. Classification  
8. Enrollment Status (full/part-time)  
9. Major and minor field of study  
10. Student advisor  
11. Dates of attendance  
12. Degrees, honors, and awards received and dates awarded/conferred  
13. Previous educational institutions  
14. Participation in officially recognized activities and sports  
15. Weight and height of members of athletic teams  
16. Photograph, video or electronic image with exception of ID cards

Social Security Number

When applying for admission, a student is asked to provide the university with a social security number. While students may choose not to provide this information, no student may receive financial aid from any federally funded program or state payroll unless the social security number is on file. The university may be required to provide your social security number to the Kansas Division of Accounts and Reports for use in detection of fraudulent or illegal claims against state monies in accord with the general authority of K.S.A. 75-3728b.

Academic Integrity

Dishonesty in Academic Work

Academic Misconduct

Education at the university level requires intellectual integrity and trust between faculty and students. Professors are obliged to master their subject and present as fair an account of it as possible. For their part, students are obliged to make an honest effort to fulfill both the letter and the spirit of course requirements. Academic dishonesty violates both integrity and trust. It jeopardizes the effectiveness of the educational process and the reliability of publicly reported records of achievement.

Academic dishonesty by a student is defined as unethical activity associated with course work or grades.

It includes, but is not limited to:

(a) Giving or receiving unauthorized aid on examinations,  
(b) Giving or receiving unauthorized aid in the preparation of notebooks, themes, reports, papers or any other assignments,  
(c) Submitting the same work for more than one course without the instructor’s permission, and,  
(d) Plagiarism. Plagiarism is defined as using ideas or writings of another and claiming them as one’s own. Copying any material directly (be it the work of other students, professors, or colleagues) or copying information from print or electronic sources (including the internet) without explicitly acknowledging the true source of the material is plagiarism. Plagiarism also includes paraphrasing another individuals’ ideas or concepts without acknowledging their work, or contribution. To avoid charges of plagiarism, students should follow the citation directions provided by the instructor and/or department in which the class is offered.

Unless otherwise stated by the instructor, exams, quizzes, and out-of-class assignments are meant to be
individual, rather than group, work. Hence, copying from other students’ quizzes or exams, as well as presenting as one’s own work an assignment prepared wholly or in part by another is in violation of academic honesty.

The above guidelines do not preclude group study for exams, sharing of sources for research projects, or students discussing their ideas with other members of the class unless explicitly prohibited by the instructor.

Since the violation of academic honesty strikes at the heart of the educational process, it is subject to the severest sanctions, up to and including receiving an "F" or "XF" (an "XF" indicates the "F" was the result of academic dishonesty) for the entire class and dismissal from the university.

When an instructor has a reasonable good faith belief that a student(s) has committed academic misconduct, that instructor has the sole discretion to give the student an “F” on the assignment/test to which the student committed academic misconduct or an “F” for the entire course. If such an “F” negatively affects the student’s final grade in the course, that student(s) may appeal the final grade pursuant to the current Pittsburg State University Catalog’s Grade Appeal process.

When the instructor wishes to impose an “XF”, and/or more severe sanctions, he or she must first notify their department chair, dean, and the University’s Academic Honesty Committee Chairperson in writing. In addition, the same procedure applies if similar sanctions seem warranted for a student(s) or former student(s) who have assisted in a serious act of academic dishonesty.

**University Academic Honesty Committee**

The Academic Honesty Committee is convened under the auspices of the Provost. It is composed of nine members. The Faculty Senate Executive Committee is responsible for appointing six of these members. All must be full-time members of the teaching faculty. Members chosen by the Executive Committee serve staggered two-year terms. The Faculty Senate Executive Committee shall make its appointments at the beginning of the academic year. In addition to its six faculty members, the Academic Honesty Committee shall include three student members. Two (2) students of senior status shall be appointed by the Student Government Association. An additional (1) student shall be appointed by the Graduate Student Advisory Council. The students from both organizations will be appointed annually and at the beginning of the Fall semester.

The President-Elect of the Faculty Senate will serve as the Academic Honesty Committee Chairperson. If the President-Elect of the Faculty Senate is excluded because of possible bias, the President of the Faculty Senate will appoint a temporary chair. The Academic Honesty Committee Chairperson is responsible for advising the Provost on cases involving alleged student academic dishonesty.

The committee may impose one or more of the following sanction(s):

- The imposition of a grade of “XF”
- The addition of a permanent note on the student’s transcript indicating his/her participation in a serious act of academic dishonesty (such as taking an exam for another student)
- Disciplinary probation
- Suspension
- Expulsion from the university

The decision made by the Academic Honesty Committee may be appealed to the Provost.

**The following procedures shall be adhered to:**

Step 1: The instructor charging a student with academic dishonesty shall submit a written request for hearing to the Chairperson of the Academic Honesty Committee, giving full detail of the alleged act(s) of academic dishonesty and send copies of the request to their department chair and dean. The Chairperson of the Academic Honesty Committee will then convene the committee and inform its members of the details of the incident. The aforementioned request shall be forwarded by the Chairperson of the Academic Honesty Committee to the student(s) charged with academic dishonesty. The committee shall then schedule a hearing to be held within fifteen (15) class days from the time of the instructor’s request.
Step 2: The instructor, and student(s) charged with academic dishonesty, will be notified of the time and date of the said hearing at least five (5) class days before the hearing is to be held. The instructor, and student(s) charged with academic dishonesty may seek advice concerning the hearing from any person such as a faculty member or department chairperson. The instructor and each student(s) may also be accompanied to the hearings by an advisor. The student(s), at their own cost, has the right to provide a transcriptionist at their hearing. *Note: The university attorney has the right to be present at any Academic Honesty Committee hearing.*

The two parties, the instructor and student(s) charged with academic dishonesty, may each request removal of any one member of the committee. This request shall be presented to the chairperson of the committee in writing at least two (2) class days prior to the time of the hearing. After the request for removal has been made the chairperson will notify the individual and the respective individual will be removed from the hearing.

Step 3: The Academic Honesty Committee will conduct an appropriate hearing and may gather additional evidence pertaining to the issue.

During the hearing, the instructor, student(s) charged with academic dishonesty, and witnesses with direct first hand knowledge of the incident shall have the opportunity to testify (within the guidelines and time frames established by the committee). Hearings are evaluations by members of the university community and are not legal proceedings. Cross-examination is the prerogative of the instructor, the student(s) charged with academic dishonesty, and the committee. For future reference, the hearing shall be audio tape recorded (Committee deliberations on sanctions shall not be recorded). During the entire process the proceedings of the committee shall be closed and confidential, unless the matter becomes the subject of litigation.

Step 4: Within five (5) class days of the conclusion of the hearing, the committee will render a written opinion concerning its findings, as well as a written verdict which the Provost will impose.

Step 5: Upon notification of the imposed sanction, the student(s) will have five (5) class days to appeal to the Provost. This appeal must be in a written format and must provide detail for the reason of the appeal.

Step 6: Once the Provost receives the appeal, he/she will have 8 class days to review the hearing and, in consultation with the President, render a decision. The Provost may uphold, or overturn the Academic Honesty Committee’s sanction(s) or propose an alternate penalty which the student may accept.

**Removal of Sanctions**

After two (2) years have elapsed, the student may present a written request for removal of the imposed sanctions to the Provost. If the request is not granted, the student may present up to 4 more requests for removal but in no case can the student present more than 1 request per academic year.

If the request is granted, the student will be returned to good standing with the university and/or have the notification of the disciplinary action removed from their transcript, provided that no other sanction for academic dishonesty has been imposed in the interim. It shall be at the Provost discretion to determine what fairness requires.
Undergraduate Degrees and Requirements

Undergraduate Programs

BACHELOR OF APPLIED SCIENCE

The Bachelor of Applied Science degree offers students who have graduated from an accredited two-year associate degree technical program the opportunity to extend their education and training. Students earning the BAS degree complete a major in technology with a selected emphasis through one of the four departments in the College of Technology.

BACHELOR OF ARTS

The Bachelor of Arts degree offers the student opportunity to become acquainted with a variety of subjects which provide the fundamentals of a liberal education. It enables the student to secure preparation for advanced work and provides opportunity for specialization in some areas. Persons completing this degree who plan to teach should see the teacher education section.

Requirements for a Major

Each student must select a major area of concentration from among the following departments or areas: biology, English, history, international studies, mathematics, modern languages and literatures, music, political science and psychology.

Requirements for a Minor

Each student must select one minor of at least 20 semester hours from among the following departments or areas: art, biology, business administration, chemistry, communication, computing, economics, English, family and consumer sciences, geography, history, international studies, mathematics, military science, modern languages and literatures, multicultural studies, music, philosophy, physics, political science, psychology and sociology. Minors in English for speakers of other languages and special education for students majoring in family and consumer sciences—early childhood emphasis require less than 20 hours. Minors from other departments or areas may be selected if approved by the major department.

Special Regulations

(1) Not more than 23 hours of professional education courses may be counted toward this degree. (2) Not more than 6 hours in courses of a practice or shop nature may be counted and then they will reduce the 23 hours maximum allowed in education courses proportionately. (3) Ten hours of foreign language are required for the Bachelor of Arts degree. These 10 hours are to be in one language.

BACHELOR OF BUSINESS ADMINISTRATION

The Bachelor of Business Administration is a professional degree providing preparation for business careers through: (1) broad preparation in communication, social sciences, natural sciences, mathematics, and humanities; (2) a substantial knowledge of economics and the functional areas of business; and (3) a limited specialization selected from: accounting, economics, finance, information systems, international business, management or marketing. Cooperative education courses offered outside the Kelce College of Business may not be applied toward the BBA degree. A minor is not required.

BACHELOR OF FINE ARTS

This degree is structured to provide a concentrated art experience for those students interested in a professional career in art and for those interested in specializing in a specific art form or study. Students with an interest in commercial art should consider this degree. Emphasis is placed on the study of historical and contemporary techniques and philosophies of art. A minor is not required.

BACHELOR OF GENERAL STUDIES

The objective and intent of the Bachelor of General Studies degree is to encourage students to define clearly their own objectives and to design a course of study that will best achieve their objectives. The Bachelor of General Studies degree is for students who wish to develop new combinations of courses to serve personal or occupational goals which are not met by

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traditional majors and minors. In consultation with faculty advisors, students may design four-year programs of study which combine courses from any department or college.

**Basic Assumptions**

This is a campus-wide degree that allows students to select courses as they wish and to organize them in logical, coherent programs of study which meet their defined objectives.

The degree may incorporate studies from any combination of fields of study, department, or colleges to serve specific personal or occupational goals. Students electing this degree option work very closely with their advisor to organize an academic experience that represents identifiable goals: it is not intended to be used as a means of circumventing the academic expectations associated with more traditional degree programs.

Students are responsible for the selection of the program that they take and for its use after graduation. Problems of transferring into other degree programs, admission to graduate school, and licensing and certification that are required in some professions and occupations are the responsibility of the students.

**Admission and Advisement**

Admission to the degree program must be approved by the director of the BGS program, Office of the Dean of the College of Arts and Sciences, 311 Grubbs Hall. The conditions for admission to the Bachelor of General Studies degree program are (1) the submission of an acceptable plan of study, and (2) the completion of at least forty hours of college credit before application to the program.

It shall be the responsibility of the director and the student to develop a statement of objectives, to plan a program, and to review the student’s progress. Continuation in the program requires development of a final plan of study at the beginning of the junior year. Bachelor of General Studies student programs shall include a minimum of 24 (twenty-four) semester hours in at least one specific discipline or 24 hours of coursework tailored for a specific goal; these constitute the emphasis. The emphasis does not appear on the diploma.

**Degree Requirements**

Students must complete 124 semester hours of selected courses and meet all other university requirements including general education requirements. Students will not complete a traditional major or minor. The only minor allowed is military science.

**BACHELOR OF INTEGRATED STUDIES**

The Bachelor of Integrated Studies degree provides a means for the creation of interdisciplinary programs. The degrees are aimed at providing an education that is a basis for life-long learning while equipping students to work in areas that are underserved by established disciplines.

**Basic Assumptions**

This is a university-wide degree that allows students to select jointly sponsored and defined programs of study which meet their objectives. The degree will consist of specific coursework established and approved by any combination of departments or colleges to serve specific personal or occupational goals. Students electing this degree option must work very closely with their advisors in the sponsoring departments to ensure the academic experience provides a path to their identifiable goals.

Students are responsible for the selection of the program that they take and for its use after graduation. Problems of transferring into other degree programs, admission to graduate school, and licensing and certification required in some professions and occupations are the responsibility of individual students.

**Admission and Advisement**

Admission to the degree program must be approved by the director of the BIS program, Office of the Dean of the College of Arts and Sciences, 311 Grubbs Hall. The condition for admission to the Bachelor of Integrated Studies degree program is acceptance by a faculty advisor in each department participating in the
program. Current programs or areas of study may be located at the College of Arts and Sciences web site. It shall be the responsibility of the BIS director and the student to contact the departmental advisor for a specific program and to review the student’s progress. Continuation in the program requires a statement of satisfactory progress from each department at the beginning of the junior year.

**Degree Requirements**

Students must complete 124 semester hours of selected courses and meet all other university requirements including general education requirements. Students may select a minor which enhances their preparation for employment; courses required as part of the integrated program, however, may not be used to meet minor requirements. Students will also complete a program assessment document, administered by the director, near the completion of their course of study.

**BACHELOR OF MUSIC**

The curriculum for this degree is highly specialized enabling the student to attain maximum performance potential on a major in vocal or instrumental, together with skills in piano, music theory, history music, and conducting. A minor is not required.

**BACHELOR OF MUSIC EDUCATION**

The curriculum for this degree prepares the student to teach and supervise music in the schools from kindergarten through senior high school. The program requires thorough knowledge of an applied instrument or vocal together with conducting and basic techniques of keyboard, woodwinds, strings, brass and percussion instruments. Music theory, history of music and participation in organizations are also included. A minor is not required.

**BACHELOR OF SCIENCE**

The Bachelor of Science degree provides the fundamentals of a liberal education with opportunity for specialization. Persons completing this degree who plan to teach should see the teacher education section.

**Requirements for a Major**

Each student must select a major area of concentration from among the following departments or areas: biology, chemistry, communication, exercise science, family and consumer sciences, geography, justice studies, mathematics, physics, psychology, recreation, social work, sociology.

**Requirements for a Minor**

Each student must select a minor that must be in a different field from the major. The social work and exercise science majors do not require a minor.

**Special Regulations**

Not more than 10 hours of approved practice or shop courses may be counted toward this degree.

**BACHELOR OF SCIENCE IN EDUCATION**

The Bachelor of Science in Education degree is designed for students preparing to teach in elementary or secondary schools, or in vocational-technical schools offering work at the secondary level. The degree is also designed to serve students planning graduate preparation for school service positions and for those planning graduate preparation for teaching in community junior colleges and other institutions of higher education.

The degree requires a substantial program of work in general education to provide opportunity for the student to acquire the fundamentals of a liberal education. In addition, the degree requires specialized preparation, or concentration, in the areas, or fields to be taught, together with a sequence of courses in psychology and professional education designed to assist the individual to function effectively as a teacher. See teacher education section.

**Requirements for a Major**

Students preparing to teach in the elementary school major in early childhood/late childhood (K-6) and complete two fifteen-hour fields and one 16 hour field of concentration in specified subject matter areas.
Individuals preparing to teach at the secondary level select a major area of concentration from any one of the departments offering a teaching major. In most instances, it is recommended that the individual preparing to teach in a secondary school develop adequate breadth as well as depth in the major field.

Preparation to teach in higher education, including the junior college, requires depth of preparation in a teaching field and usually requires a fifth or sixth year of preparation.

Requirements for a Minor

The minor, when required on the student's degree program, must be selected with advisement as one appropriate to teacher preparation.

BACHELOR OF SCIENCE IN ENGINEERING TECHNOLOGY

Curricula offered under this degree are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) and are designed to prepare graduates for employment in industry. Students enrolled in these curricula have the opportunity to specialize in one of five engineering technology options. Graduates find employment in administrative and supervisory positions in industrial organizations and assume responsibilities in the areas of product design and development, manufacturing and production, sales and distribution, maintenance and service and industrial training. A minor is not required.

BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY

This degree is designed to prepare students for employment in clinical laboratories as medical technologists. The degree is necessary before a person is eligible to take the National Registry Examination for certification as a medical technologist. A minor in chemistry is required.

BACHELOR OF SCIENCE IN NURSING

The Bachelor of Science in Nursing degree is designed to prepare students for the practice of professional nursing in a variety of settings including hospitals, clinics and homes in the community. Persons receiving this degree are eligible to write the licensure examination required to become a registered nurse. A minor is not required.

BACHELOR OF SCIENCE IN TECHNOLOGY

This degree is designed to prepare students for employment in business and industry in high level technical, managerial and supervisory positions. A minor is not required.

BACHELOR OF SCIENCE IN VOCATIONAL-TECHNICAL EDUCATION

The degree program is designed for those desiring positions as teachers and supervisors in vocational, industrial and technical education, and in health occupations. In addition, to meeting curriculum requirements, the individual must meet work experience requirements established by the Division of Vocational Education, Kansas State Department of Education. A minor is not required.

ASSOCIATE DEGREE

The Associate of Applied Science degree is granted upon the completion of the following specified two-year program:

Department of Automotive Technology
  Automotive Service Technology

Department of Technology and Workforce Learning
  Electrical Technology
  Wood Technology

CERTIFICATES

Two year certificates are granted upon completion of the following program:

Department of Technology and Workforce Learning
  Electrical Technology  Two Year Certificate
Requirements for All Baccalaureate Degrees

1. Students must successfully complete a minimum of 124 semester hours of credit with an earned grade point average of 2.00 for all hours attempted and included in the GPA computation.

2. Students must successfully complete a minimum of 45 semester credit hours outside the department in which they are enrolled as a major. The Department of Social Science is considered a multidiscipline department and students with majors in those disciplines must complete 45 semester hours outside their discipline. The College of Technology is considered one department and students majoring in the College of Technology must complete 45 semester hours outside of that college.

3. Students must have a grade point average of 2.00 for all major and minor credit hours attempted; all Bachelor of Science in Education (secondary) students must have a minimum grade point average of 2.75 in major credit hours, 2.50 overall; All Bachelor of Science in Education (early/late childhood and early childhood unified birth through third grade licensure) students must have a minimum grade point average of 3.00 in major credit hours, 2.80 overall. Department of Art undergraduate degree programs require a 3.00 in art courses and grades of “B” or better in upper level art courses.

4. A minimum of 45 semester hours of credit must be earned in upper division courses (numbered 300 to 799).

Upper division credit may be earned only through a four year institution.

5. A minimum of 30 semester hours of credit must be earned in residence (courses taken from Pittsburg State University) with a grade point average of 2.00 for all resident hours attempted. These minimum resident hours must include eight semester hours of credit in the major department.

6. A two-year college transfer student must complete a minimum of sixty credit hours at an accredited four-year university or college.

7. A maximum of six semester hours of credit completed at another college or university may be applied on the last thirty hours prior to graduation.

8. Freshman English—Students must earn credit in 6 hours of English Composition/Research Writing (ENGL 101 and ENGL 190 or 299) with a grade of C or above.

9. Speech Communication—A student must earn credit in a course in basic speech communication.

10. Upon attaining 85 semester hours of credit (including current enrollment), the student must apply in writing for an official degree check, with the Degree Checking Office in the Office of the Registrar. Following the record analysis, the student will be provided with an outline of specific requirements which must be met before a degree can be granted. A copy of this official degree check is sent to the student’s advisor.

11. Degrees are issued only at the close of each semester and summer session.

12. A student must complete the degree requirements of the most recent Pittsburg State University catalog in effect at the time of the student’s first matriculation at any college or university provided that the catalog has not expired. A student may also select any subsequent catalog provided that the catalog has not expired.

This 2012-2013 University Catalog will expire at the end of 2018 summer session for students who take their first college course fall semester 2012 or before. Those students who take their first college course after fall 2012 will have six years to complete their degree under the 2012-2013 University Catalog.

13. Minors must be selected from a different department than the major. (It is understood that, in the Department of Engineering Technology, technology minors can be earned in areas of study different from the major).

14. Additional minors or majors will not be awarded or posted to a transcript after a baccalaureate degree has been granted unless a second baccalaureate degree is earned.
15. A student who earns a bachelor’s degree from Pittsburg State University may be granted a second bachelor’s degree, in a major area other than that in which the first degree was granted provided the student has met all requirements for the second degree, including no fewer than thirty semesters hours of Pittsburg State University credit beyond the number required for the first degree. In cases where the two degrees will be awarded in the same semester, the student will designate which is to be his or her “first degree” for the purpose of this policy.

For dual degrees academic honors (e.g., summa cum laude) will be determined, recognized and recorded treating each degree as a separate academic achievement.

The Bachelors of General Studies cannot be awarded as a second bachelors, nor can it be awarded concurrently with another Pittsburg State University degree. A student seeking a second bachelor’s degree who earned the first bachelor’s degree at another institution will not be required to meet Pittsburg State University general education requirements, except English Composition/Research Writing and Speech Communication requirements. All other requirements must be met, including minimum hours in residence as stipulated in “Requirements for All Baccalaureate Degrees.”

Students are strongly encouraged to file for a degree audit with the Degree Checking Office as soon as they determine they will seek a second baccalaureate degree.

16. All students must successfully complete the Degree Specific Assessment Program prior to graduation.

17. Students must successfully complete the Writing To Learn requirement. See Writing to Learn Requirement.

18. All international students must submit an acceptable score on either the Test of English as a Foreign Language (TOEFL), or the International English Languages Testing System (IELTS). Minimum score for the TOEFL internet based test is 68 for most undergraduate programs (Communication, Nursing, Psychology and English for Speakers of Other Languages majors require a minimum score of 79). Minimum score for the IELTS is band 6.0 with all section scores of at least band 5.5.

The successful completion of the highest level of the Pittsburg State University Intensive English Program is equivalent to an acceptable score on the TOEFL or IELTS and can be substituted for this requirement.

19. All students planning to graduate are required to apply for graduation in their last semester and pay graduation fees even if the student is not participating in graduation ceremonies.

Requirements for Dual Degree

A student who seeks to complete two or more degrees at Pittsburg State University in the same semester are required to file for a degree audit with the Degree Checking Office at the point this decision is made. Please review second degree policy shown above in #15 of Requirements for all Baccalaureate Degrees.

Writing to Learn Requirement

The General Education writing requirement at Pittsburg State University consists of a sequence of four courses: two required courses taught by the English Department (ENGL 101 and ENGL 299) and two courses chosen from the menu of courses designated Writing to Learn (WL). This sequence is designed to allow students to take one writing or writing-intensive course each semester of their first two years in order to prepare effectively for the more demanding, discipline-specific writing students will encounter in their upper-division coursework.

ENGL 101 English Composition is the foundational course in college-level writing. In this course, students will be challenged to develop a higher level of academic literacy through reading and responding to challenging texts and developing written works with that explore the complex connections between assigned texts, students’ own experience, and the larger world. ENGL 101 is designed for incoming students with no prior college writing experience.

Writing to Learn courses are writing-intensive courses offered in a wide variety of departments and subject
areas. In addition to teaching course content, Writing to Learn courses are designed to enhance students' ability to formulate and articulate complex ideas and to convey those ideas in writing to a professional and/or academic audience. The amount of writing varies by course, but most WL courses are designed to require at least 15 pages of polished, finished draft (usually in the forms of multiple short pages), along with informal writing done in class or in online discussion forums. Many WL courses also fulfill other general education requirements or requirements for specific degree programs.

ENGL 299 Introduction to Research Writing is the capstone of the general education writing sequence. It is designed to extend students' academic literacy by reinforcing and extending students' skills in writing from sources using academic, scholarly, and professional texts for independent research. Introduction to Research Writing serves as preparation for upper-division coursework and is intended to be taken when student have completed approximately 45 hours of college credit and have completed two Writing to Learn courses.

The flow chart below shows the normal progression through the WL series. ENGL 101 English Composition should be considered a prerequisite for the Writing to Learn courses. ENGL 101 English Composition and two Writing to Learn courses are a prerequisite for ENGL 299 Introduction to Research Writing.

Four Possible Writing to Learn Sequences

English Comp. 101-------WL--------WL--------English 299

\textbf{OR}

English ACT of 27--------WL--------WL--------English 299

\textbf{OR}

English ACT of 28 or higher--WL--English Comp. 190--WL

\textbf{OR}

*(Transfer Students with Fewer than 55 Credit Hours Only)

Two Composition courses elsewhere--------WL--------WL

*Students who transfer to PSU with fewer than 55 credit hours but who have completed two composition courses will take two WL courses. They will not take English 299.

Students enrolled in ENGL 101, WL, and ENGL 299 are encouraged to use the services provided by the Writing Center. The Writing Center at Pittsburg State University is a free service offered by the University for students, faculty, and staff. The Writing Center offers face-to-face and online consultations at any stage of the writing process for any type of writing, as well as workshops for students and faculty. The Writing Center is located in 111D axe Library and online at http://www.pittstate.edu/office/writing_center/.

Appointments can be made online (http://pittstate.mywconline.com/index.php) or in person. Hours are 11:00 a.m. to 7:00 p.m. Monday through Thursday during Fall and Spring semesters. See the website for Summer hours.

The Writing Center regularly employs graduate and undergraduate students from any major who have demonstrated success with academic or workplace writing. For more information about the Writing Center's services or employment, contact Dr. Janet Zepernick jzeperni@pittstate.edu or Dr. Don Judd djudd@pittstate.edu.

For more information about the WL program or the Writing Center's services or employment, contact Don Judd at djudd@pittstate.edu (620-235-4697) or Janet Zepernick at jzeperni@pittstate.edu (620-235-6539).

**Requirements for the Associate Degree**

1. The associate degree requires the successful completion of a minimum of 60 semester hours of credit, with at least the last 15 semester hours earned at Pittsburg State University.
2. The student must earn a grade point average of 2.00 for total hours, for all hours in their area of concentration, and for all hours attempted at Pittsburg State University.
3. The associate degree has the same general academic policies and regulations that exist for baccalaureate degrees at Pittsburg State University.
4. The associate degree will not be granted after a baccalaureate degree has been granted.
5. All students planning to graduate are required to apply for graduation in their last semester and pay graduation fees even if the student is not participating in graduation ceremonies. This also applies to students receiving certificates of completion.

**General Education Policy**

**Philosophy**

General Education is the study of humans in their global setting. The general education curriculum, therefore, acts as the heart of a university education by developing the capacities that typify the educated person and providing a basis for life-long learning and intellectual, ethical, and aesthetic fulfillment. General education examines the world around us and fosters an understanding of our interactions with the world and our place in the universe. General education celebrates the creative capacities of humankind and helps to preserve and transmit to future generations the values, knowledge, wisdom, and sense of history that are our common heritage.

**Goals of General Education**

General Education plays a pivotal role at Pittsburg State University. As a key component of undergraduate education, it furthers the University’s mission of “providing programs and services that create opportunities for students to develop intellectually, ethically, aesthetically, emotionally, socially and physically.”

The overall purpose of the General Education program is to provide an environment in which students can acquire the basic knowledge and skills common to educated people in our global society. To do this, the program provides instruction in certain basic disciplines ranging from the arts to science and technology. But it does more. It stimulates critical thinking and encourages decision-making free from prejudice or insularity. It develops the ability to communicate effectively via a variety of means. The program promotes ethical and aesthetic growth. It cultivates an appreciation of different cultures and the rights of others. In short, the foundation provided by General Education helps Pittsburg State University graduates lead satisfying lives and function responsibly in a complex and ever-changing world. And above all, the program provides a basis for future growth.

The General Education program accomplishes its task through a set of courses that meets the following goals and objectives.

**Goal #1: Students should be able to communicate effectively.**

**OBJECTIVES:**

1. Apply the principles of effective oral communication either in-group or individual presentations.
2. Apply the principles of effective writing and other forms of communication.
3. Demonstrate the ability to formulate and solve problems using the tools of mathematics.

**Goal #2: Students should be able to think critically.**

**OBJECTIVES:**

1. Demonstrate the ability to distinguish between relevant and irrelevant information in problem solving.
2. Articulate a problem and develop a logical and reasonable response to it using appropriate sources.
3. Apply generalizations, principles, theories, or rules to the real world.
4. Demonstrate the ability to analyze and synthesize information.

**Goal #3: Students should be able to function responsibly in the world in which they live.**

**OBJECTIVES:**

**Part I: Sciences**

1. Demonstrate an understanding of the basic principles, facts, and theories of the biological and physical sciences.
2. Demonstrate an understanding of the basic methods of inquiry, analysis and description in the biological and physical sciences.
3. Demonstrate and understanding of how the natural sciences contribute to the general welfare of civilization.

**Part II: Social Studies**

1. Demonstrate an understanding of contemporary social issues.
2. Evaluate the impact of scientific, technological, economic, and intellectual change on social and political institutions.
3. Demonstrate an understanding of cultural diversity within the United States and in the world at large.

**Part III: Political Studies**

1. Demonstrate an understanding of the basic governmental institutions of the United States.
2. Demonstrate an understanding of the principles underlying democracy.
3. Demonstrate an awareness of the impact of public policy on people’s lives.
4. Demonstrate an understanding of the global context in which the political system of the United States operates.

**Part IV: Producing and Consuming**

1. Demonstrate an understanding of fundamental philosophies, principles, and theories that govern the world of producing and consuming.
2. Demonstrate an understanding of how the world of producing and consuming impacts the individual, society, institutional structures, the economy, and the world.
3. Demonstrate an understanding of how the practices and outcomes of producing and consuming apply to our daily decision-making and to the solution of societal problems.

**Part V: Aesthetic Studies**

1. Demonstrate an understanding of the creative process, both practical and theoretical, and its relationship to an audience or viewers.

2. Demonstrate the ability to make informed critical responses when exposed to artistic endeavors.
3. Understand the relationship between the arts and society in a multicultural environment.

**Part VI: Cultural Studies**

1. Demonstrate the ability to recognize the value of diverse cultural, national, and ethnic backgrounds.
2. Demonstrate an awareness of the rights of individuals and groups from diverse cultural, national, and ethnic backgrounds.
3. Demonstrate an understanding of the relationships of gender, race, and class within and across cultures.

**Part VII: Health and Well-being**

1. Demonstrate an understanding of the relationships between lifestyle and functional health.
2. Demonstrate the ability to incorporate concepts of the human body, mind, and emotions that lead to a well-adjusted individual.

**Part VIII: Human Heritage**

1. Demonstrate an appreciation for the range and diversity of humankind’s wisdom, values, ideas, beliefs, and reasoning.
2. Demonstrate an understanding of human behavior, the human condition, and human institutions in the context of historical, literary, or philosophical inquiry.
3. Demonstrate recognition of the inter-relatedness of the past, present, and future.

**General Education Requirements**

**General Education Requirements for All Baccalaureate Degrees**

The general education degree requirements consist of 46-54 credit hours of course work.

All baccalaureate students must successfully pass the general education requirements. Separate general
education requirements have been approved to meet degree requirements for some departments. See each department section for specific requirements.

Courses meeting general education requirements may also satisfy major, minor, emphasis or program requirements.

The following courses have been approved by the General Education Committee.

Basic Skills (12-13 hours)
COMM 207: Speech Communication ......................... 3
ENGL 101: English Composition ................................ 3
ENGL 190: Honors English Composition .................. 3
or ENGL 299: Introduction to Research Writing .......... 3

Mathematics (select one)
MATH 110: College Algebra with Review .................. 5
MATH 113: College Algebra ..................................... 3
MATH 126: Pre-Calculus ......................................... 4
MATH 133: Quantitative Reasoning ........................... 3
MATH 143: Elementary Statistics .............................. 3

General Education Electives (34-41 hours)

Sciences (8-9 Hours)

Natural Sciences (Select one)
BIOL 111: General Biology ..................................... 3
and BIOL 112: General Biology Laboratory ............... 2
BIOL 113: Environmental Life Science ...................... 4
BIOL 211: Principles of Biology I ............................. 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry .......................... 3
and CHEM 106: Introductory Chemistry Laboratory .... 1
CHEM 107: Chemistry for the Life Sciences .............. 3
and CHEM 108: Chemistry for the Life Sciences Laboratory ......................................................... 1
PHYS 160: Physical Geology .................................. 3
and PHYS 165: Physical Geology Laboratory .............. 1
PHYS 162: Physical Oceanography .......................... 3
and PHYS 163: Physical Oceanography Laboratory ...... 1

PHYS 166: Meteorology ........................................ 3
and PHYS 167: Meteorology Laboratory ................... 1
PHYS 171: Physical Science .................................... 3
and PHYS 172: Physical Science Laboratory ............... 1
PHYS 175: Descriptive Astronomy .......................... 3
and PHYS 176: Astronomy Laboratory ...................... 1
PHYS 375: Solar System Astronomy ........................ 3
and PHYS 176: Astronomy Laboratory ...................... 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology .......................... 3
WOMEN 200: Introduction to Women's Studies .......... 3

Political Studies (3 hours)
POLS 101: U.S. Politics ........................................... 3

Producing and Consuming (Select one from two of the following three categories) (5-6 hours)

Economy
ECON 191: Issues in Today's Economy .................... 3
FCS 230: Consumer Education and Personal Finance .. 3

Technology
EET 247: Computer Programming for Electronic Systems ................................................................. 3
GT 190: Introduction to Technological Systems .......... 2
GT 350: Technology and Civilization ..................... 3
EDTH 330: Technology for the Classroom ................. 3
TE 551: Integrated Technology for Educators ........... 3
TM 350: Societal Influence of Technology ............... 3

Business
ACCTG 201: Financial Accounting ............................ 3
CIS 130: Computer Information Systems .................. 3
MGMKT 101: Introduction to Business ..................... 3

Fine Arts and Aesthetic Studies (Select one) (2-3 hours)
ART 155: Printmaking and Paper Arts ..................... 3
ART 178: Introduction to the Visual Arts .................. 3
ART 188: The Designed World ................................ 3
ART 217: Crafts I ..............................................3
ART 222: Jewelry Design I ..............................3
ART 233: Drawing I ........................................3
ART 244: Ceramics I .........................................3
ART 266: Sculpture I .........................................3
ART 277: Painting I ........................................3
ART 288: Western Art History I .........................3
ART 289: Western Art History II .........................3
ART 311: Art Education ...................................3
COMM 105: Performance Appreciation .................3
COMM 205: Performance Studies ........................3
COMM 295: Theatre History (_) .........................3
ENGL 250: Introduction to Creative Writing ..........3
HHP 151: Dance Appreciation ..........................3
MUSIC 120: Music Appreciation (_) ....................3
MUSIC 121: Introduction to Music Literature ..........2
MUSIC 321: History of Music ............................3

**Cultural Studies (Select one) (3-5 hours)**

MLL 114: Chinese language and Culture I ............5
MLL 124: French Language and Culture I ............5
MLL 154: Spanish Language and Culture I ............5
MLL 184: Russian Language and Culture I ............5
MLL 194: Korean Language and Culture I ............5
GEOG 106: World Regional Geography ..........3
GEOG 300: Elements of Geography ................3
GEOG 304: Human Geography ........................3
WOMEN 399: Global Women’s Issues .................3

**Health and Well Being (4-6 hours)**

**Psychological**

PSYCH 155: General Psychology .......................3

**Physical (Select one)**

FCS 203: Nutrition and Health ........................3
FCS 301: Nutrition ........................................3
HHP 150: Lifetime Fitness Concepts ................1
NURS 303: Introduction to Public Health ..........3

**Human Heritage (Select one from two of the following three categories) (6 hours)**

**History**

HIST 101: World History to 1500 ......................3
HIST 102: World History from 1500 ..................3
HIST 201: American History to 1865 .................3
HIST 202: American History from 1865 ...............3

**Literature**

ENGL 113: General Literature ........................3
ENGL 114: General Literature (Genre) ...............3
ENGL 116: General Literature (Theme) ...............3
ENGL 315: Mythology ..................................3
ENGL 320: Literature and Film ........................3

**Philosophy**

PHIL 103: Introduction to Philosophy .................3
PHIL 105: Ethics ..........................................3
PHIL 111: Ethics: Applied Emphasis (_) .............3
PHIL 112: Biomedical Ethics .........................3
PHIL 113: Business Ethics ............................3
PHIL 114: Environmental Ethics ....................3
PHIL 208: Logic and Critical Thinking ...............3
PHIL 231: World Religions ............................3

**General Education Requirements for Students Preparing to Teach Elementary School**

These requirements are for undergraduate students who are preparing to teach elementary school. The requirements as listed will meet general education degree requirements as well as teaching program requirements.

The general education degree requirements consist of 54-56 credit hours of course work.

Courses meeting general education requirements may also satisfy major and other program requirements.

Refer to curriculum guides in the [Department of Teaching and Leadership](#) for additional course requirements specific to the major.

See [Scholastic Achievement in Common Core](#) general education courses for Early Childhood/Late Childhood (K-6) majors.
General Education Components

COMM 207, ENGL 101, ENGL 190 OR ENGL 299, MATH 204, BIOL 113 OR BIOL 111 and BIOL 112, PHYS 171 and PHYS 172 OR CHEM 105 and CHEM 106, SOC 100, POLS 101, GEOG 106 OR GEOG 300, PSYCH 155, FCS 203 OR FCS 301 OR HHP 150 OR NURS 303, HIST 101 OR HIST 102 OR HIST 201 OR HIST 202 are the general education content core curriculum of 33-36 hours. A 2.80 GPA in this content core is required for admission to Teacher Education.

Basic Skills (15 hours)
COMM 207: Speech Communication ......................... 3
ENGL 101: English Composition ............................ 3
ENGL 190: Honors English Composition .................... 3
or ENGL 299: Introduction to Research Writing ..........., 3
MATH 204: Mathematics for Education I .................... 3
MATH 304: Mathematics for Education II .................... 3
Must have a "C" or better in COMM 207, ENGL 101, ENGL 190, ENGL 299, MATH 204.

General Education Electives (39-41 hours)

Sciences (11 hours)

Natural Sciences
BIOL 113: Environmental Life Science ..................... 4
and BIOL 114: Environmental Life Science
Laboratory for Teachers .......................................... 1
or BIOL 111: General Biology .................................... 3
and BIOL 112: General Biology Laboratory ................... 2

Physical Sciences (Select one)

PHYS 171: Physical Science ................................. 3
and PHYS 172: Physical Science Laboratory ................ 1
and PHYS 114: Physical Science Laboratory for Teachers .................................................. 2
CHEM 105: Introductory Chemistry ......................... 3
and CHEM 106: Introductory Chemistry Laboratory .................................................. 1
and PHYS 114: Physical Science Laboratory for Teachers .................................................. 2

Social Studies** (3 hours)
SOC 100: Introduction to Sociology .......................... 3

Political Studies** (3 hours)
POLS 101: U.S. Politics ........................................... 3
** One of the two courses counts for the 33-36 hours
General Education Core GPA of 2.75.

Producing and Consuming (6 hours)

Economy (Select one)
ECON 191: Issues in Today's Economy .................... 3
FCS 230: Consumer Education and Personal
Finance ................................................................. 3

Technology
EDTH 330: Technology for the Classroom ............... 3

Fine Arts and Aesthetic Studies (3 hours)
ART 311: Art Education .......................................... 3

Cultural Studies (Select one) (3 hours)
GEOG 106: World Regional Geography .................... 3
GEOG 300: Elements of Geography .......................... 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ............................ 3

Physical (Select one)
FCS 203: Nutrition and Health ............................... 3
FCS 301: Nutrition ................................................. 3
HHP 150: Lifetime Fitness Concepts .......................... 1
NURS 303: Introduction to Public Health .................... 3

Human Heritage (6 hours)

History (Select One)
HIST 101: World History to 1500 ........................... 3
HIST 102: World History from 1500 ......................... 3
HIST 201: American History to 1865 ....................... 3
HIST 202: American History from 1865 .................... 3
Literature (Select One)
ENGL 113: General Literature ......................... 3
ENGL 114: General Literature (Genre) ................. 3
ENGL 116: General Literature (Theme) ................. 3

General Education Requirements for Students Preparing to Teach Secondary School
Undergraduate students preparing to teach secondary or K-12 school must meet University general education requirements and earn a minimum grade of “C” in ENGL 101 and 299, COMM 207, and three credit hours of mathematics.

Courses meeting general education requirements may also satisfy major, minor, emphasis or program requirements.

Refer to curriculum guides in the department of your major for additional course requirements.

General Education Components

Basic Skills (12-13 hours)
COMM 207: Speech Communication .................... 3
ENGL 101: English Composition ....................... 3
ENGL 190: Honors English Composition ............... 3
or ENGL 299: Introduction to Research Writing ....... 3

Mathematics (select one)
MATH 110: College Algebra with Review ............... 5
MATH 113: College Algebra ............................ 3
MATH 126: Pre-Calculus .................................... 4
MATH 133: Quantitative Reasoning .................... 3
MATH 143: Elementary Statistics ....................... 3
Must have a "C" or better in each of these Basic Skills courses.

General Education Electives (34-41 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)
BIOL 111: General Biology ............................... 3
and BIOL 112: General Biology Laboratory .......... 2

BIOL 113: Environmental Life Science ................ 4
BIOL 211: Principles of Biology I ...................... 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry .................... 3
and CHEM 106: Introductory Chemistry Labora- ty .............................................. 1
CHEM 107: Chemistry for the Life Sciences .......... 3
and CHEM 108: Chemistry for the Life Sciences Labor- tory .............................................. 1
PHYS 160: Physical Geology ............................ 3
and PHYS 165: Physical Geology Laboratory ........ 1
PHYS 162: Physical Oceanography .................... 3
and PHYS 163: Physical Oceanography Labora- tory .............................................. 1
PHYS 166: Meteorology .................................. 3
and PHYS 167: Meteorology Laboratory .............. 1
PHYS 171: Physical Science ............................. 3
and PHYS 172: Physical Science Laboratory .......... 1
PHYS 175: Descriptive Astronomy ..................... 3
and PHYS 176: Astronomy Laboratory ................ 1
PHYS 375: Solar System Astronomy ................... 3
and PHYS 176: Astronomy Laboratory ................. 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology .................... 3
WOMEN 200: Introduction to Women's Studies ....... 3

Political Studies (3 hours)
POLS 101: U.S. Politics .................................... 3

Producing and Consuming (Select one from two of the following three categories) (5-6 hours)

Economy
ECON 191: Issues in Today's Economy ............... 3
FCS 230: Consumer Education and Personal Finance ............................................ 3

Technology
EET 247: Computer Programming for Electronic Systems ............................................ 3
GT 190: Introduction to Technological Systems ...... 2
GT 350: Technology and Civilization .......................... 3
EDTH 330: Technology for the Classroom .................. 3
TE 551: Integrated Technology for Educators ............ 3
TM 350: Societal Influence of Technology ................ 3

**Business**

ACCTG 201: Financial Accounting .......................... 3
CIS 130: Computer Information Systems .................. 3
MGMKT 101: Introduction to Business ...................... 3

**Fine Arts and Aesthetic Studies (select one) (2-3 hours)**

ART 155: Printmaking and Paper Arts ..................... 3
ART 178: Introduction to the Visual Arts .................. 3
ART 188: The Designed World ............................... 3
ART 217: Crafts I ........................................... 3
ART 222: Jewelry Design I ................................... 3
ART 233: Drawing I .......................................... 3
ART 244: Ceramics I .......................................... 3
ART 266: Sculpture I ......................................... 3
ART 277: Painting I .......................................... 3
ART 288: Western Art History I ............................. 3
ART 289: Western Art History II ............................ 3
ART 311: Art Education ...................................... 3
COMM 105: Performance Appreciation ........................ 3
COMM 205: Performance Studies ............................ 3
COMM 295: Theatre History (____) ........................ 3
ENGL 250: Introduction to Creative Writing ............... 3
HHP 151: Dance Appreciation ................................ 3
MUSIC 120: Music Appreciation (____) .................... 3
MUSIC 121: Introduction to Music Literature .............. 2
MUSIC 321: History of Music ................................ 3

**Cultural Studies (Select one) (3-5 hours)**

MLL 114: Chinese language and Culture I ............... 5
MLL 124: French Language and Culture I ............... 5
MLL 154: Spanish Language and Culture I ............... 5
MLL 184: Russian Language and Culture I ............... 5
MLL 194: Korean Language and Culture I ............... 5
GEOG 106: World Regional Geography .................... 3
GEOG 300: Elements of Geography ........................ 3
GEOG 304: Human Geography ................................ 3
WOMEN 399: Global Women's Issues ...................... 3

**Health and Well Being (4-6 hours)**

**Psychological**

PSYCH 155: General Psychology ............................ 3

**Physical (Select one)**

FCS 203: Nutrition and Health ............................. 3
FCS 301: Nutrition ........................................... 3
HHP 150: Lifetime Fitness Concepts ......................... 1
NURS 303: Introduction to Public Health .................. 3

**Human Heritage (Select one from two of the following three categories) (6 hours)**

**History**

HIST 101: World History to 1500 .......................... 3
HIST 102: World History from 1500 ......................... 3
HIST 201: American History to 1865 ....................... 3
HIST 202: American History from 1865 ................... 3

**Literature**

ENGL 113: General Literature ................................ 3
ENGL 114: General Literature (Genre) ..................... 3
ENGL 116: General Literature (Theme) ..................... 3
ENGL 315: Mythology ........................................ 3
ENGL 320: Literature and Film ................................ 3

**Philosophy**

PHIL 103: Introduction to Philosophy ........................ 3
PHIL 105: Ethics .............................................. 3
PHIL 111: Ethics: Applied Emphasis (____) ............... 3
PHIL 112: Biomedical Ethics ................................ 3
PHIL 113: Business Ethics ................................... 3
PHIL 114: Environmental Ethics ............................ 3
PHIL 208: Logic and Critical Thinking ..................... 3
PHIL 231: World Religions .................................. 3
Interdisciplinary and Pre-Professional Programs

Interdisciplinary

Bachelor of Integrated Studies
The Bachelor of Integrated Studies degree provides a means for the creation of interdisciplinary programs. The degrees are aimed at providing an education that is a basis for life-long learning while equipping students to work in areas that are underserved by established disciplines.

Bachelor of Integrated Studies with an Emphasis in Analytics
Director: Bobby Winters
Telephone: 620-235-4079
Office: 311b Grubbs Hall
e-mail: winters@pittstate.edu

The Analytics emphasis in the Bachelor of Integrated Studies was designed to bridge students with mathematical talent into applications in a business setting. Those completing the emphasis will be equipped to work in a variety of quantitative oriented areas in the world of business.

Analytics Program Requirements

Mathematics (28 hours)
- MATH 150 Calculus (satisfied by general education) (0 hours)

MATH 155: Calculus II .................................................5
MATH 212: Matrix Algebra .........................................2
MATH 253: Calculus III ..................................................3
MATH 543: Probability and Statistics .............................3
MATH 627: Linear Optimization Models .......................3
MATH 643: Mathematical Statistics ..............................3
MATH 646: Statistical Methods I ..................................3
MATH 656: Mathematical Modeling .............................3
MATH 658: Financial Mathematics ..............................3

Computer Science (6 hours)
- CIS 230 Visual Basic Programming I (satisfied by general education) (0 hours)

CIS 240: C++ Programming ........................................3
CIS 250: Principles of Software Design .......................3

Business and Marketing (18 hours)
- ECON 200 Introduction to Microeconomics (satisfied by general education) (0 hours)

ACCTG 201: Financial Accounting .................................3
ACCTG 202: Managerial Accounting ............................3
MGMT 320: Business Statistics ..................................3
MGMT 330: Basic Marketing .......................................3
MGMT 430: Consumer Behavior .................................3
MGMT 534: Marketing Research .................................3

Other (3 hours)
- PHIL 208 Logic and Critical Thinking (satisfied by general education) (0 hours)
- COMM 207 Speech Communication (satisfied by general education) (0 hours)

ENGL 301: Technical/Professional Writing .....................3

- Total Electives* (13-20 hours)
- Total Minimum Requirements (124 hours)

*Electives-Recommended but not required

PHIL 105: Ethics .........................................................3
MATH 726: Probability Models ......................................3
ECON 201: Introduction to Macroeconomics ..................3
CIS 510: Data Structures and Algorithms .....................3
TM 679: Presentation Skills .......................................3

Below are the standard general education requirements which have been amended so as to take into account those general education courses which have been included in the program.

Basic Skills (14 hours)

COMM 207: Speech Communication ............................3
ENGL 101: English Composition ..................................3
ENGL 190: Honors English Composition .....................3
or ENGL 299: Introduction to Research Writing ...........3
MATH 150: Calculus I .......................................5

**General Education Electives (35-41 hours)**

**Sciences (8-9 Hours)**

**Natural Sciences (Select one)**
BIO 111: General Biology ...................................3
and BIO 112: General Biology Laboratory ...............2
BIO 113: Environmental Life Science .....................4
BIO 211: Principles of Biology I ..........................4

**Physical Sciences (Select one)**
CHEM 105: Introductory Chemistry .......................3
and CHEM 106: Introductory Chemistry
Laboratory ....................................................1
PHYS 160: Physical Geology ...............................3
and PHYS 165: Physical Geology Laboratory ..........1
PHYS 162: Physical Oceanography .......................3
and PHYS 163: Physical Oceanography
Laboratory ....................................................1
PHYS 166: Meteorology ....................................3
and PHYS 167: Meteorology Laboratory ...............1
PHYS 171: Physical Science ................................3
and PHYS 172: Physical Science Laboratory ..........1
PHYS 175: Descriptive Astronomy .......................3
and PHYS 176: Astronomy Laboratory ................1
PHYS 375: Solar System Astronomy ....................3
and PHYS 176: Astronomy Laboratory ................1

**Social Studies (Select one) (3 hours)**
SOC 100: Introduction to Sociology ......................3
WOMEN 200: Introduction to Women’s Studies .......3

**Political Studies (3 hours)**
POLS 101: U.S. Politics ....................................3

**Producing and Consuming (6 hours)**
ECON 200: Introduction to Microeconomics ...........3
CIS 230: Visual Basic Programming .....................3

**Fine Arts and Aesthetic Studies (Select one) (2-3 hours)**
ART 155: Printmaking and Paper Arts .................3
ART 178: Introduction to the Visual Arts ...............3
ART 188: The Designed World ........................3
ART 217: Crafts I ..........................................3
ART 222: Jewelry Design I ................................3
ART 233: Drawing I ........................................3
ART 244: Ceramics I ........................................3
ART 266: Sculpture I .......................................3
ART 277: Painting I ........................................3
ART 288: Western Art History I ..........................3
ART 289: Western Art History II ........................3
ART 311: Art Education ..................................3
COMM 105: Performance Appreciation .................3
COMM 205: Performance Studies .......................3
COMM 295: Theatre History (___) .......................3
ENGL 250: Introduction to Creative Writing ...........3
HHP 151: Dance Appreciation ........................3
MUSIC 120: Music Appreciation (___) .................3
MUSIC 121: Introduction to Music Literature ..........2
MUSIC 321: History of Music ............................3

**Cultural Studies (Select one) (3-5 hours)**
MLL 114: Chinese Language and Culture I ............5
MLL 124: French Language and Culture I ............5
MLL 154: Spanish Language and Culture I ............5
MLL 184: Russian Language and Culture I ............5
MLL 194: Korean Language and Culture I ............5
GEOG 106: World Regional Geography ...............3
GEOG 300: Elements of Geography ..................3
GEOG 304: Human Geography ........................3
WOMEN 399: Global Women’s Issues .................3

**Health and Well Being (4-6 hours)**

**Psychological**
PSYCH 155: General Psychology .......................3

**Physical (Select one)**
FCS 203: Nutrition and Health .........................3
FCS 301: Nutrition ..................................3
HHP 150: Lifetime Fitness Concepts ..................1
NURS 303: Introduction to Public Health ............3
Human Heritage (Select PHIL 208 and one from either of the other two categories) (6 hours)

History
HIST 101: World History to 1500 ........................................... 3
HIST 102: World History from 1500 .................................... 3
HIST 201: American History to 1865 .................................. 3
HIST 202: American History from 1865 ............................ 3

Literature
ENGL 113: General Literature ............................................. 3
ENGL 114: General Literature (Genre) ................................. 3
ENGL 116: General Literature (Theme) .............................. 3
ENGL 315: Mythology .......................................................... 3
ENGL 320: Literature and Film ............................................ 3

Philosophy
PHIL 208: Logic and Critical Thinking ............................... 3
Total hours required for General Education (49-55 hours)

Bachelor of Integrated Studies with an Emphasis in Sustainability, Society and Resource Management
The primary focus of this curriculum is to provide an opportunity for students to pursue an interdisciplinary program that will prepare them to participate in programs dealing with resource management within the framework of sustainability.

General Education Degree Requirements

Basic Skills (12 hours)
COMM 207: Speech Communication .................................... 3
ENGL 101: English Composition ......................................... 3
ENGL 190: Honors English Composition ............................ 3
or ENGL 299: Introduction to Research Writing .............. 3
MATH 143: Elementary Statistics ....................................... 3

General Education Electives (35-38 hours)

Sciences (8 hours)

Natural Sciences
BIOL 113: Environmental Life Science ............................... 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry .................................... 3
and CHEM 106: Introductory Chemistry Laboratory .......... 1
PHYS 160: Physical Geology ............................................. 3
and PHYS 165: Physical Geology Laboratory ..................... 1
PHYS 162: Physical Oceanography .................................... 3
and PHYS 163: Physical Oceanography Laboratory .......... 1
PHYS 166: Meteorology ...................................................... 3
and PHYS 167: Meteorology Laboratory ........................... 1
PHYS 171: Physical Science .............................................. 3
and PHYS 172: Physical Science Laboratory ..................... 1
PHYS 175: Descriptive Astronomy ..................................... 3
and PHYS 176: Astronomy Laboratory .............................. 1
PHYS 375: Solar System Astronomy .................................. 3
and PHYS 176: Astronomy Laboratory .............................. 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology .................................... 3
WOMEN 200: Introduction to Women’s Studies ................ 3

Political Studies (3 hours)
POLS 101: U.S. Politics ....................................................... 3

Producing and Consuming (6 hours)
ECON 200: Introduction to Microeconomics ....................... 3
CIS 230: Visual Basic Programming ................................. 3

Fine Arts and Aesthetic Studies (Select one) (2-3 hour)
ART 155: Printmaking and Paper Arts ............................... 3
ART 178: Introduction to the Visual Arts ........................... 3
ART 188: The Designed World ......................................... 3
ART 217: Crafts I ............................................................ 3
ART 222: Jewelry Design I .............................................. 3
ART 233: Drawing I ........................................................ 3
ART 244: Ceramics I ....................................................... 3
ART 266: Sculpture I ....................................................... 3
Sustainability, Society and Resource Management Program Requirements

Biology - Select 5 courses
BIOL 304: Soils Ecology ........................................ 3
BIOL 313: Principles of Conservation ......................... 3
BIOL 330: Principles of Ecology, ............................... 3
BIOL 537: Regional Natural History ........................... 3
BIOL 602: Topics in Biology (____) .......................... 1-3
BIOL 612: Internship in Biology ................................ 1-3
BIOL 615: Environmental Protection .......................... 3
BIOL 643: Natural History Interpretation ..................... 3

- Total Biology (15 hours)

BIOL 602 Topic is Conflict Resolution in Natural Resource Management.

Communication - Select 5 courses
COMM 277: Introduction to Public Relations ............... 3
COMM 450: Small Group Communication .................... 3
COMM 601: Intercultural Communication .................... 3
COMM 690: Internship in Applied Communication (____) ........................................ 1-3
COMM 702: Mass Media Management ........................ 3
COMM 755: Organizational Communication ................ 3
COMM 785: International Communication ................... 3
COMM 795: Issues in Communication (____) ............... 3

- Total Communication (15 hours)

COMM 795 Issues in Communications must be taken as Risk/Crisis Communication

Social Science Requirements

Environmental Geography - Select 3 courses
GEOG 302: Introduction to Environmental Geography ........................................ 3
GEOG 303: Geographic Information Systems I ............ 4
GEOG 401: Urban and Regional Planning .................... 3
GEOG 502: Global Environmental Change ................... 3
GEOG 602: Internship in GIS and Environmental Geography ........................................ 1-4
Must take GEOG 602 Internship in GIS and Environmental Geography for three hours if selected.

**Legal/Ethical - Select 2 courses**
- PHIL 114: Environmental Ethics ........................................ 3
- POLS 512: Environmental Politics ........................................ 3
- POLS 609: Administrative Law ............................................. 3
- SOC 676: Global Sociology .................................................. 3
- Total Social Sciences (15-16 hours)

**Other Required Courses**
- ECON 201: Introduction to Macroeconomics .................. 3
- ENGL 301: Technical/Professional Writing ......................... 3
- TM 679: Presentation Skills ............................................... 3
- Total Other Required Courses (9 hours)
- Total Major Hours (BIOL + COMM + SSC + Other) (54-55 hours)

**Free Electives**
Can be courses specific to a student focus, such as the ones recommended below, additional BIOL/COMM/SOSCI courses not used for major requirements, or courses recommended in consultation with advisor.

- INT 690: Study Abroad (___) .............................................. 3-6
- XXX Service Learning (Dept Specific) (3 hours)
- Total Electives (19-23 hours)
- Total Minimum Requirements for Bachelor of Integrated Studies with an Emphasis in Sustainability, Society and Resource Management (124 hours)

**Certificate in Autism Spectrum Disorders**
Coordinator: Terri Cooper Swanson
Telephone: 913-529-4487
Office: Kansas City Metro Center, 12345 W. 95th, Suite 204, Lenexa, KS
e-mail: tswanson@pittstate.edu

The Department of Teaching and Leadership offers a 15 credit hour certificate to those who complete a graduate program of study in Autism Spectrum Disorders. The program of study is a joint effort by Pittsburg State University, Fort Hays State University, and the Kansas State Department of Education. Course objectives in the certificate program align with the Council for Exceptional Children Standards for Teachers of Individuals with Developmental Disabilities/Autism.

Students must select one of the two strands in the program: “classic” autism or higher functioning autism/Asperger syndrome. Those who select the “classic” strand will take nine of the required core hours from Pittsburg State University and the final three from Fort Hays State University. Those who select the higher functioning autism/Asperger syndrome strand will take the 12 required core hours from Pittsburg State University. Both strands are completed with a three hour elective.

The class in communication for the “classic” strand is offered through Fort Hays State University, and students transfer the credit to Pittsburg State University. Elective courses are offered through Pittsburg State University or they may be taken through Kansas State Department of Education or professional associations for credit at the discretion of Pittsburg State University.

Students who wish to complete both strands of the certificate program will be required to take the additional three hour course, completing the certificate program with 18 hours.

**Program completion**
Two classes are offered each semester so that the certificate can be earned in one calendar year.

Once students have completed the required coursework and demonstrated that they have met the skill competency requirements, their advisor will recommend them for the certificate.

**Required Coursework (12 hours)**
- SPED 750: Assessment in Special Education ...................... 3
- SPED 812: Characteristics of Learners with Autism Spectrum Disorder ......................................................... 3
SPED 814: Teaching Students with ASD: Strategies for School and Community ........................................ 3
SPED 821: Teaching Students with ASD: Strategies for Building Social Relationships ......................... 3
OR
- SPP 869 CC: Topics in SLP/AUD: Autism Spectrum Disorders: Social-Communication Issues (from Fort Hays State) (3 hours)

Electives chosen from the following (3 hours)

SPED 747: KISN Training Series ........................................... 1-3
SPED 748: Autism Spectrum Disorder Workshops .. 1/2-3
SPED 822: Seminar in Special Education Law ............... 3
SPED 823: Teaching Students with Autism Spectrum Disorders in the Inclusive Classroom ............. 2
SPED 827: Teaching ASD: Understanding Sensory Processing Characteristics ............................... 1
SPED 829: Teaching ASD: Issues in Transition ............. 3

- Other electives may be used with prior approval by the program advisor.

Minor Interdisciplinary Gerontology
Coordinator: Sean Lauderdale
Telephone: 620-235-4526
Office: 207a Whitesitt Hall
e-mail: slauderd@pittstate.edu

The Interdisciplinary Gerontology Minor will provide students an introduction to the range of experiences and the service needs of older adults. Specifically, students will learn how aging affects older adults’ family relations, role in society (as grandparents, parents, employees, and friends), emotional experiences, cognitive abilities, health functioning, and recreational activities. Additionally, through use of an interdisciplinary approach, students will develop an appreciation of the range of professionals whose activities influence and are influenced by older adults. The Interdisciplinary Gerontology Minor is particularly relevant to students across disciplines as it is expected that the population of people 65 years of age and older will continue to outstrip the number of professionals receiving training experiences preparing them for meeting the needs of older adults.

The Interdisciplinary Gerontology Minor requires 21 credit hours, which includes the three credit hour course GER 155 Interdisciplinary Introduction to Gerontology, which will provide a survey of the aging process from an interdisciplinary perspective. The Interdisciplinary Gerontology Minor compliments a variety of majors at Pittsburg State University, including, but not limited to: Health, Human Performance, and Recreation; Family and Consumer Sciences; Sociology; Social Work; Psychology and Counseling; Political Science; Nursing; Biology (Pre-Dental and Pre-Medicine); Management and Marketing; and Technical Education. The overarching goal of this minor is to provide students from diverse academic backgrounds the knowledge, skills and experiences enabling them to provide services tailored to the unique needs of older adults.

To complete the Interdisciplinary Gerontology Minor, students must complete a total of 21 credit hours from the courses listed below. GER 155 Interdisciplinary Introduction to Gerontology is a required course. The following courses are being recommended for the Interdisciplinary Gerontology Minor:

GER 155: Interdisciplinary Introduction to Gerontology ........................................................................ 3

Eighteen Hours Chosen from the Following

PSYCH 263: Developmental Psychology .................... 3
or FCS 285: Lifespan Human Development .......... 3
SWK 341: Social Work and the Aged ......................... 3
PSYCH 360: Psychology of Aging ................................ 3
PSYCH 362: Death and Dying ...................................... 3
REC 441: Adult Health and Development .................. 3
NURS 405: Health Alterations in Older Adults .......... 3
NURS 440: Pharmacology in Nursing I ..................... 2
NURS 441: Pharmacology in Nursing II .................... 1
FCS 581: Aging and the Family .................................. 3

Special Notes

GER 155 Interdisciplinary Introduction to Gerontology is a required course.
PSYCH 263 Developmental Psychology: Prerequisite PSYCH 155 General Psychology or permission of instructor.

NURS 405 Health Alterations in Older Adults: Prerequisite of successful completion of Level 1 nursing courses waived with permission of instructor.

FCS 581 Aging and the Family: Prerequisite of FCS 480 Dynamics of Family Relationships waived with permission of instructor.

**International Knowledge and Experience (IKE) Certificate**

Director: Dr. Paul Zagorski, 412H Russ Hall, zagorski@pittstate.edu, 620-235-4337

Coordinator: Megan Corrigan, 118 Whitesitt Hall, mcorriga@pittstate.edu, 620-235-4221

The International Knowledge and Experience (IKE) Certificate promotes international knowledge and encourages student international experiences. The IKE certificate consists of three components of international experience – Study Abroad, Academic Courses, and Co-Curricular programming. A student may complete any two of the components to fulfill the certificate requirements. Students completing IKE by choosing to include the Academic Courses component will also receive a notation on their academic transcript. All students who complete the program receive a detailed listing of the activities they have fulfilled to achieve this certificate. The completion of each component will be accounted as follows:

**Study Abroad:** Earning credit through a PSU Study Abroad program, or any approved partner study abroad program.

International students taking credit courses at PSU will fulfill this component.

**Academic Courses:** This component has two areas, language study and international coursework, and both must be completed to fulfill the component. The foreign language area is fulfilled by completion of a second-semester language course with a grade of C or better, or the equivalent. (Equivalencies may be considered with the approval of the MLL department).

The international coursework area is fulfilled by completing three courses in three different disciplines with a grade of C or better. Courses are selected from a list approved by the International Studies program.

International students may fulfill the foreign language area by meeting the English proficiency for international students set by the University. They may also meet the international coursework area by taking one course (two with permission) with a significant modern US focus.

**Co-curricular:** This component is fulfilled by participating in a number of intercultural activities, lectures, meetings, student organizations, etc. equaling 60 units. The units are calculated from an approved list maintained by the International Programs and Services office.

**International Studies**

Director: Paul Zagorski
Telephone: 620-235-4337
Office: Russ Hall Room 412H
e-mail: zagorski@pittstate.edu

The mission of the International Studies Program (both the major and minor programs) is to provide high-quality in-depth education in international affairs, to cultivate foreign language and inter-cultural communications skills, to provide opportunities for study abroad, to enhance students’ vocational skills in an increasingly interconnected world, and to provide an intellectual climate that cultivates curiosity, tolerance and an eagerness to learn about the world.

**Bachelor of Arts- International Studies**

The International Studies major, Bachelor of Arts degree, is a multi-disciplinary major, incorporating a variety of disciplines across colleges and departments within the Pittsburg State University community. Its core is Political Science, History, Geography and Sociology with substantial contributions made by Economics, Management and Marketing, and Communication. In addition, a variety of other disciplines, such as Family and Consumer Sciences,
English and the Fine Arts provide important contributions. The major is designed to give students a core body of knowledge and basic skills necessary to live and work successfully in an increasingly interconnected world. The development of students' foreign language skills is a key component of the program. Students are encouraged to enroll in internships and practica.

Students who wish to complete the International Studies major with Departmental Academic Honors can complete a total of nine hours of courses designated “may be taken for honors” from the 33 hours of required courses for the major.

**Core Requirements (21 hours)**

HIST 102: World History from 1500 ................................. 3
POLS 324: Introduction to Comparative Politics .......... 3
POLS 530: International Relations ................................. 3

**Environmental Issues (Choose one):**

BIOL 330: Principles of Ecology. ................................. 3
GEOG 302: Introduction to Environmental Geography ................................. 3
GEOG 502: Global Environmental Change ................................. 3
POLS 512: Environmental Politics ................................. 3

BIOL 330 Principles of Ecology recommended for science majors/minors only. POLS 512 Environmental Politics when research/individual project is international or comparative in scope.

**Economic Issues (Choose one):**

GEOG 507: Geography of the Global Economy .......... 3
POLS 630: International Political Economy .......... 3

**Cultural Issues (Choose one):**

SOC 200: Introduction to Anthropology .......... 3
PHIL 231: World Religions .......... 3
GEOG 304: Human Geography .......... 3
COMM 601: Intercultural Communication .......... 3
SOC 676: Global Sociology .......... 3
INT 699: Senior Seminar in International Studies .......... 3

**Elective Courses* (12 hours)**

**History**

HIST 501: Special Topics in World History (__) ........... 1-3
HIST 505: African Civilizations .................. 3
HIST 507: Modern Africa .................. 3
HIST 510: Modern Middle East .................. 3
HIST 522: Korean and Vietnam Wars .................. 3
HIST 523: Early China .................. 3
HIST 524: Early Japan .................. 3
HIST 526: Japan Since 1700 .................. 3
HIST 527: China Since 1700 .................. 3
HIST 529: History of South Asia .................. 3
HIST 531: Samurai: History, Literature, Myth .................. 3
HIST 532: History of Japanese Women .................. 3
HIST 533: US-East Asia Relations .................. 3
HIST 534: Korea Since 1700 .................. 3
HIST 547: Radical Islam .................. 3
HIST 605: Africa and the Middle East .................. 3
HIST 626: U.S. Iraq and Afghanistan .................. 3
HIST 668: U.S. as a Superpower .................. 3
HIST 700: History: Selected Subjects (__) ........... 1-3

HIST 501 Special Topics in World History (when a contemporary topic). HIST 700 History: Selected Subjects (when a contemporary, international topic).

**Business, Economics and Technology**

BIOL 665: Medical Entomology .................. 3
FIN 631: Seminar in Financial Management .................. 3
ECON 640: International Trade .................. 3
GT 350: Technology and Civilization .................. 3
MGMKT 439: International Business .................. 3
MGMKT 605: Cross Cultural Analysis .................. 3
MGMKT 611: International Marketing .................. 3
MGMKT 625: Emerging Markets .................. 3

**Comparative and International Institutions**

GEOG 106: World Regional Geography .................. 3
GEOG 307: East Asia: China, Japan, and Korea .................. 3
POLS 524: European Politics .................. 3
POLS 525: Politics and War in the Middle East .................. 3
POLS 526: Latin American Politics .................. 3
POLS 587: U.S. Foreign Policy .................. 3
POLS 640: African Politics .................. 3
POLS 680: War: The Politics of Violence .................. 3
SOC 534: Political Sociology ........................................3
SOC 676: Global Sociology ........................................3
WOMEN 399: Global Women's Issues ..........................3

**Literature, Fine Arts and Design**

ART 178: Introduction to the Visual Arts .....................3
ART 288: Western Art History I ................................3
ART 289: Western Art History II ................................3
ART 688: History of Modern Art ................................3
ART 689: Contemporary Issues in Art ........................3
COMM 405: Drama Studies (____) .............................3
ENGL 220: World Masterpieces ................................3
ENGL 555: Topics in Literature (____) ......................1-3
ENGL 556: Topics in Writing (____) .........................1-3
or ENGL 756: Topics in Writing (____) ....................1-3
ENGL 560: British Genre (____) ...............................3
ENGL 561: British Theme (____) .............................3
ENGL 570: International Literatures Genre (____) ......3
ENGL 571: International Literatures Theme (____) ....3

• MLL - All upper-division courses covering topics of literature, culture, art, civilization, history, or contemporary affairs.

COMM 405 Drama Studies (when an international topic).
ENGL 555 Topics in Literature (when an international topic). MUSIC 120 Music Appreciation topic is World Music.

**General**

INT 505: Topics in International Studies (____) ............3
INT 510: Readings in International Studies ..................1-3
INT 690: Study Abroad (____) ..................................3-6
INT 695: Internship/Practicum ..................................3
Total (33 hours)

INT 505 Topics in International Studies - maximum of two if topics are different. INT 510 Readings in International Studies - maximum of two.

Additional Requirements

1. At least 18 of the 33 hours must be completed with courses numbered 300 or above.
2. Proficiency in a second language (four semesters or equivalent).
3. Minimum four weeks study abroad.
4. International Studies Majors must also major in a second discipline in Arts and Sciences or minor in Business or Technology. Suggested Majors: Biology, Communication, English, History, Justice Studies, Modern Languages and Literature, Political Science, and Sociology. (See the Pittsburg State University Catalog for course prerequisites).

*Courses from the Core may also be used as electives if they are not used to meet core requirements. (Note: The list of elective courses published here is not exhaustive. Additional offerings will be available as electives when departments add new courses appropriate to International Studies to their own curricula and when appropriate “special topics” classes are offered. Students should refer to the International Studies section in the on-line class schedule to see what electives courses are available for the current semester. Majors and minors can also consult their International Studies adviser.)*

**Minor International Studies**

The International Studies minor serves as an excellent complement to majors in Business, Communication, Economics, English, History, Justice Studies, Marketing, Modern Languages and Literature, Social Sciences as well as other degree programs. The minor consists of the twenty-one hour core requirement of the International Studies major listed above plus ten hours from one modern language.

For more information contact Dr. Paul Zagorski, Director of International Studies, 412H Russ Hall, or the Department of Social Sciences, 412 Russ Hall.
Minor Public Health
Coordinator: Dr. Janis Schiefelbein
Office: 110 McPherson Hall
Telephone: 620-235-4441
e-mail: jschiefe@pittstate.edu

The study of public health will combine the social sciences, sciences, mathematics, humanities, and the arts. It will serve as a vehicle for the development of written and oral communication skills, critical and creative thinking, teamwork and problem solving. The public health minor focuses on maintaining a healthy society through the control of disease, education about health promotion and disease prevention, and organized efforts to preserve healthy environments. It will incorporate civic knowledge and commitment—locally, nationally and globally and ethical reasoning and action, forming the foundation for lifelong learning for healthier populations and communities.

To complete the Interdisciplinary Public Health Minor, students must complete a total of 21 credit hours from the courses listed below. All the core courses (8-9 credit hours) must be completed with an additional 12-13 hours from the listed electives. No more than 12 hours from the core and electives courses can be used as duel credit toward the major and minor degree.

Core Requirements (8-9 hours)
BIOL 277: Epidemiology ........................................3
BIOL 410: Biological and Medical Terminology ..........2
or NURS 314: Health Care Terminology and Drug Calculations .........................................................3
NURS 303: Introduction to Public Health ..................3

Elective Courses (12-13 hours)
BIOL 617: Environmental Health ..........................3
COMM 277: Introduction to Public Relations ..........3
COMM 601: Intercultural Communication .................3
FCS 203: Nutrition and Health ............................3
FCS 285: Lifespan Human Development ................3
FCS 480: Dynamics of Family Relationships ..........3
FCS 581: Aging and the Family ............................3
MATH 143: Elementary Statistics ..........................3
MGMKT 327: Organizational Theory and Behavior ....3
NURS 265: Health Promotion and Disease Prevention .................................................................2
NURS 405: Health Alterations in Older Adults ..........3
NURS 445: Transcultural Health Care ....................1-3
NURS 482: Research in Nursing ..........................2
NURS 723: Client/Family Health: Theory, Assessment and Promotion ..................................................2
PHIL 112: Biomedical Ethics .........................................3
PSYCH 263: Developmental Psychology .................3
PSYCH 571: Abnormal Psychology ........................3
REC 441: Adult Health and Development .................3
SOC 584: Medical Sociology ....................................3
SWK 342: Health Care and Social Work ................3
SWK 344: Mental Health Theory and Practice ..........3

Total hours required for Minor in Public Health (21 hours)

Women’s Studies
Director: Browyn K. Conrad
Telephone: 620-235-4333
Office: 316 Russ Hall
e-mail: browyn@pittstate.edu

Women’s Studies is an interdisciplinary program that places women and gender at the center of academic analysis. Students learn how gender affects social relationships, artistic expression, institutional structures, and national and international political, cultural and economic relations. While centrally concerned with gender dynamics, Women’s Studies also explores the ways other dimensions of diversity, including race, ethnicity, nationality, class, sexual orientation, age, and ability shape the experiences of both women and men.

Certificate in Women's Studies
The requirements for a certificate are 15 hours, including a 6 hour core consisting of Women 200 Introduction to Women’s Studies and Women 399 Global Women’s Issues. Additional Women’s Studies courses or courses cross-listed with Women’s Studies will supplement this core.

Both Women 200 Introduction to Women’s Studies, and Women 399 Global Women’s Issues can be used to fulfill general education requirements.
Minor in Women's Studies

The Women’s Studies minor involves twenty-one credit hours, including a six credit hour core emphasizing collaborative learning and critical thinking in global, activist and feminist contexts. It complements a wide variety of majors, including Business, Communication, Education, English, Family and Consumer Sciences, History, Justice Studies, Psychology, and Sociology, and is an excellent preparation for careers in the non-profit sector or in private sector fields such as human resources, marketing, management, education, and law.

Core Requirements (6 hours)
WOMEN 200: Introduction to Women's Studies ..........3
WOMEN 399: Global Women's Issues ...........................3

Women's Studies Electives* (15 hours)
ART 689: Contemporary Issues in Art .........................3
COMM 730: Interpersonal Communication ....................3
COMM 795: Issues in Communication (____) ..................3
ENGL 555: Topics in Literature (____) ..........................3
or ENGL 755: Topics in Literature (____) ......................1-3
ENGL 566: American Theme (____) ............................3
ENGL 771: Major Author(s) (____) ..............................3
ENGL 875: Seminar (____) ........................................3
FCS 154: Dress and Culture .......................................3
FCS 455: History of Costume .....................................3
FCS 480: Dynamics of Family Relationships ................3
FCS 580: Family Violence and Child Abuse .................3
or FCS 780: Family Violence and Child Abuse .............3
HIST 608: Women in American History ......................3
JUST 480: Women, Crime, and Justice .......................3
PSYCH 736: Psychology of Family Development ..........3
PSYCH 740: Topics in Psychology: (____) ...................1/2-3
SOC 512: Social Stratification ....................................3
SOC 536: The Family and Society ..............................3
SOC 569: Society and Sexuality ................................3
SOC 663: Women, Men and Society ............................3

Total hours required for Minor in Women's Studies (21 hours)
WOMEN 500 or WOMEN 700 may be substituted for WOMEN 200 or WOMEN 399 with permission.

*Women’s Studies Electives: Must be selected from at least three different departments, with departments defined to include courses with distinct program designations (e.g., HIST, JUST and SOC). At least 12 of the 21 hours must be completed with courses numbered 300 or above, including WOMEN 399. Students may receive credit toward both their major and the Women’s Studies minor for no more than one elective. Courses offered at the graduate level are typically available only to those earning the Certificate in Women’s Studies as part of graduate or postgraduate studies. Students should refer to the Women’s Studies link in the on-line course schedule for a complete list of Women’s Studies electives as additional courses may be offered on a per semester basis. Students should also consult their Women’s Studies advisor or the Director of Women’s Studies.

COMM 795 Issues in Communication must be taken as Gender Communication.

ENGL 555/755, 566, 771 and 875 must be relevant with Women's Studies.

PSYCH 740 Topics in Psychology must be taken as Human Sexuality Issues.

Pre-Professional Programs

Engineering and Pre-Engineering

Students preparing for careers in engineering have three kinds of programs available at Pittsburg State University:

(1) Two-year pre-engineering;

(2) A chemistry or physics B.S. degree as preparation for graduate work in engineering;

(3) An engineering technology B.S. degree as preparation for transfer to engineering B.S. program or graduate work in engineering.

Pre-Engineering

Pre-engineering is the name given to the first two years of study for students who plan to transfer to an engineering school. Unlike some "pre"-programs, pre-
engineering is an engineering curriculum and not something taken before studying engineering.

The chairperson of the Department of Physics coordinates the pre-engineering curricula. These are administered by the Departments of Mathematics, Physics, and Engineering Technology. Advisors for specific engineering specialties may be contacted in these departments:

**Department of Engineering Technology:** Architectural Engineering, Construction Engineering, Electrical Engineering, Industrial Engineering, Manufacturing Engineering, Mechanical Engineering and Plastics/Polymer Engineering

**Department of Mathematics:** Civil Engineering and Mining Engineering

**Department of Physics:** Mechanical Engineering, Electrical Engineering, Engineering Physics, Agricultural Engineering, Aeronautical Engineering, General Engineering, and Industrial Engineering

Students who have not selected a particular specialty will be advised in the Department of Physics initially.

**Pre-Law Curricula**

Pre-Law Advisor: Dr. Darren Botello-Samson, History, Philosophy and Social Sciences  
Room: 327D Russ Hall  
Telephone: 620-235-4334  
e-mail: dbsamson@pittstate.edu

Law schools, unlike medical or some other professional schools, do not require any particular degree or course of study for admission. Each applicant is required to have completed only a bachelor’s degree and the Law School Admission Test (LSAT). Someone who is interested in pre-law at Pittsburg State University may choose any field in which to complete a baccalaureate degree. However, prospective law students should consult with the pre-law advisor to make sure their coursework is developing the analytic and language skills necessary for admission into and success in law school.

For students interested in attending law school after graduation, the Department of Social Sciences provides pre-law advising. The purpose of a pre-law advisor is to prepare students to be successful law school applicants and law school students. This entails providing advice on courses of study, application strategies, LSAT preparation, and general topics related to student’s interest in the legal field. The pre-law advisor is NOT your academic advisor; the latter advises the student to help the student satisfy Pittsburg State University’s graduation requirements; the role of the pre-law advisor is more akin to that of a career counselor, providing information to which students may avail themselves if they so choose.

The Political Science major provides students with a Bachelor of Arts- Political Science: Pre-Law Emphasis. The emphasis area exposes students to the material and learning approach prevalent in law schools and helps to develop the requisite skills necessary to law school success.

**Pre-Medicine**

The program of study for pre-medical students is designed to meet the course work requirements for application to most medical schools. While students may major in any field of study, most choose either biological or physical science. Most pre-medical advisors are in the Department of Biology or the Department of Chemistry. For a suggested program of study, see the pre-professional curriculums listed in the catalog sections for the Department of Biology and the Department of Chemistry or consult pre-medical advisors in the Department of Biology or the Department of Chemistry.

**Pre-Dentistry**

The pre-dental student may pursue either a Bachelor of Arts or a Bachelor of Science degree in a major of their choice, although most choose either a biological or a physical science. Although the minimum requirements for admission to approved schools of dentistry as established by the Council of Dental Education, American Dental Association provides for admission to most dental schools after the completion of two full years of college work, the applicants will find their
chances of being accepted are increasingly improved with the completion of the third or even the fourth year of college work. Early contact with a pre-dental advisor is imperative.

**Pre-Pharmacy**

The university offers a B.S. in Chemistry with an emphasis in Pharmaceutical Chemistry which prepares students for entry into a pharmacy school after two years at PSU. Details concerning this program can be obtained from the Department of Chemistry. Following pharmacy emphasis studies at Pittsburg State University, students must be admitted to a school of pharmacy to complete their program requirements. Names and addresses of nearby schools of pharmacy are available.

**Other Pre-Professional Programs**

The Department of Biology offers pre-professional work in forestry, medical technology, physical therapy, optometry and veterinary medicine. Consult the chairperson of the department for details concerning these programs.
Student and Faculty Services

Enrollment Management and Student Success
William A. Ivy, Associate Vice President for Enrollment Management and Student Success
213 Russ Hall
620-235-4111
e-mail: wivy@pittstate.edu
http://www.pittstate.edu/admission/undergraduate

The seven administrative offices within Enrollment Management and Student Success (EMSS) serve the Pittsburg State University community by providing leadership and coordination for the university’s efforts to attract and retain a student body that meets the University’s strategic enrollment goals. EMSS offices serve students from the prospective student inquiry stage to the commencement ceremony, providing transition programming, support for special needs, and enrichment opportunities for special abilities along the way. The focus of our offices is to promote student success through high quality programs and services that enhance the university experience and support the efforts of the faculty.

Admission
Melinda Roelfs, Director
107 Horace Mann
620-235-4251 or 1-800-854-PITT
e-mail: psuadmit@pittstate.edu
http://www.pittstate.edu/admission/undergraduate/

The Office of Admission provides leadership in the planning and implementation of undergraduate recruitment, admission and new student enrollment at Pittsburg State University.

Campus Visits
Prospective students are welcome and encouraged to visit the campus Monday through Friday or by attending one of the many special visit events throughout the year. Campus visit information, including how to schedule visits, can be found at
http://www.pittstate.edu/admission/undergraduate or by calling 800-854-PITT (7488). While on campus, students have an opportunity to visit with an Admission representative, meet with faculty in their academic areas of interest and tour campus. Campus tours are given by University Student Ambassadors, a student organization on campus that tours prospective students and their families and provides assistance to the Admission Office during special visit events.

Undergraduate Admission Decisions
In addition to undergraduate recruitment initiatives, the Office of Admission evaluates undergraduate applicants for admission in accordance with Kansas Legislature under KSA 76-717. Pittsburg State University is committed to a policy of educational equity. Accordingly the University admits students, grants financial aid and scholarships, conducts all educational programs, activities and employment practices without regard to race, color, religion, sex, national origin, sexual orientation, age, marital status, ancestry or disabilities. Specific admission requirements can be found at

New Student Orientation
To facilitate the enrollment of new students, the Office of Admission also coordinates a freshman and transfer student orientation program called Pitt C.A.R.E.S. (Campus Advisement, Registration and Enrollment Services). During Pitt C.A.R.E.S. students get connected to college life through small-group activities and meet with an academic advisor to enroll for the upcoming semester. Parent and sibling sessions run concurrently with student sessions. Sessions for new freshmen occur in June, August, and January and in November, April and July for new transfers. For additional details regarding Pitt C.A.R.E.S. visit
http://www.pittstate.edu/admission/undergraduate/enroll.dot.
**Financial Assistance**

Tammy Higgins, Director  
103 Horace Mann  
620-235-4240 or 1-800-854-PITT (toll free)  
e-mail: finad@pittstate.edu  
http://www.pittstate.edu/office/financial_aid/

See Applying for Financial Assistance for additional information on Student Financial Assistance.

**Registrar's Office**

Debbie Greve, Registrar  
Room: 103 Russ Hall  
Telephone: 620-235-4200  
Fax: 620-235-4015  
e-mail: registrar@pittstate.edu  
http://www.pittstate.edu/office/registrar/

The Registrar's Office, 103 Russ Hall, maintains the official student records of Pittsburg State University. Technical questions concerning enrollments, degree requirements, academic regulations, or transcript evaluations should be asked of the Registrar, Assistant Registrar for Degree Checking or Assistant Registrar for Transcript Analysis.

The Registrar's Office is responsible for maintaining correct records of student enrollments. Students wishing to obtain official transcripts or to verify their proper enrollments should contact the Registrar office staff. Changes in enrollments are initiated in the Registrar's Office or on the Web-based enrollment system (GUS).

The Registrar's Office processes attendance verification forms for employers, Social Security, and other agencies.

Early enrollments are coordinated by the Registrar's Office as are the regular enrollment periods at the beginning of each semester or summer session. The Registrar's Office also assesses tuition and related fees.

Many Registrar office services can be facilitated on line under the student's Personal Information menu (ex. order transcript, degree audit, change major, verify enrollment status and update contact information).

**Degree Checking**

Janet Hoyer, Assistant Registrar  
Room: 102 Russ Hall  
Telephone: 620-235-4211  
e-mail: jhoyer@pittstate.edu

When a student attains 85 semester hours of credit (including current enrollment), the student must apply for an official degree check as issued by the Degree Checking Office. Application may be made on-line through the GUS audit OR by written application in the Degree Checking Office. [Students seeking an associate degree or a technology certificate must contact the Degree Checking Office to receive instructions for applying for this official check]. The student’s permanent record and current enrollment will be examined in detail to assess progress toward the degree objective. A letter is written to the student following the record analysis outlining specific requirements which must be met before a degree may be granted. A copy of this letter is sent to the student’s advisor.

A Web-based degree audit can be run for undergraduates through their advisors at the time of early enrollment each semester. The degree audit lists all requirements to be met for the degree, major and minor as selected by the student. It will be indicated on the degree audit [see prompt at end of GUS audit: ‘apply now for official degree check,’ if you qualify] when an official degree check application must be made. The degree audit is also available through the on-line Web-based enrollment system.

**Transcript Analyst**

Barbara Van Becelaere, Assistant Registrar  
Room 103 Russ Hall  
Telephone: 620-235-4253  
Fax: 620-235-4015  
e-mail: bvanbecelaere@pittstate.edu

Pittsburg State University accepts transfer credits from regionally accredited community colleges, technical colleges and universities. Transcript evaluation is a component of the application process and a transcript from each institution that a student has attended should be submitted upon application. The student will be notified by email that the transcript evaluation has been completed and is available to be viewed on GUS. Students without an email address in our system, will...
receive a paper copy of their evaluation by mail. Acceptance of transfer credit toward major degree requirements is at the discretion of each major department.

- CLEP and AP credit are considered transfer credit and application to the student’s transcript requires an official transcript from College Board.
- Courses transferred from other 4 year institutions will be designated as lower or upper division according to the original institutions numbering system.
- Courses retain the credit hour value taken at the original institution except for the adjustment of courses taken at an institution that operates on the quarter hour system.
- International transcripts must be in English and accompanied by course descriptions in English.
- Pittsburg State University reserves the right to decide the applicability of transfer course work to the degree program.
- Official transcripts received for evaluation of transfer credit will be considered to be a complete academic record from that institution up to and including the last completed semester as listed on the transcript. Subsequent official transcript/transcripts from the same institution showing additional previously completed work will not be accepted.

Transfer Articulation

Students transferring to Pittsburg State University with an Associate of Arts or an Associate of Science may meet general education requirements through one of two options, transfer articulation or by completing the general education courses as listed in the catalog. Eligible students may choose the method best suited to their program.

Eligibility for transfer articulation is major dependent and subject to meeting the criteria set by the Kansas Board of Regents.

Veterans' Services
Sherry Roberts, Coordinator
Room: 103 Russ Hall
Telephone: 620-235-4202
e-mail: sroberts@pittstate.edu

The Veteran's Certifying Official, located in the Registrar’s Office, assists veterans, spouses, and dependents who may be eligible for veteran’s benefits under the Montgomery GI Bill and Vocational Rehabilitation and Employment programs. The certifying official assists in completing applications and provides certification of enrollment to the Veteran’s Administration. The university is approved for veterans training by the Kansas Veterans Commission.

In order to qualify for full payments benefits, an undergraduate veteran or dependent must carry a minimum of 12 hours of credit per semester. Graduate students qualify for full payments by carrying nine hours of credit per semester. Pay rates for summer are dependent upon both number of credit hours and length of class.

First Year Programs
Heather Eckstein, Director
213 Russ Hall
620-235-4265
e-mail: heckstei@pittstate.edu
http://www.pittstate.edu/office/first-year-programs/index.dot

The First Year Programs office is part of the Enrollment Management and Student Success division and has responsibility for the Freshman Experience and Transitions courses, support for academic advising, and coordination of the Exploratory Studies Program.

Freshman Experience (UGS 100)

The primary purpose of the Freshman Experience course is to assist new students in making a successful transition to Pittsburg State University. Students in the course will learn about resources available and develop skills to assist them academically, personally and socially. This two credit hour course is required of freshman enrolling at Pittsburg State University in the fall or spring semester immediately following their high school graduation.

Transitions (UGS 101)

The primary purpose of the Transitions course is to assist new students, who are not required to take Freshman Experience, in making a successful transition
to Pittsburg State University. Students in this one credit hour course will learn about the resources available to assist them as they work to pursue their educational goals after attending another college, working fulltime, or a lengthy break from the educational setting. New international students are required to take this course to assist in their transition to the American educational experience.

**Exploratory Studies Program**

The Exploratory Studies Program is coordinated through the First Year Experience office. Exploratory Studies provides a gateway for entering students who are not yet ready to declare an academic area of study to explore academic areas and potential career options while fulfilling University requirements and earning credit toward a future college degree.

The Exploratory Studies Program is a legitimate, though temporary, academic program of the University with between 300 and 400 students in the program annually. Advisors assist students in this program to enroll in courses that meet general education requirements and address their interest areas. Advisors encourage the use of the Do What You Are and ACT/Discover programs to provide direction toward career paths and major choice that combine the student’s skills, talents and interests. Exploratory Studies students enrolled in or with previous credit in UGS 100 (Freshman Experience) or UGS 101 (Transitions) are assigned to the instructor of that course for academic advising.

Students in the Exploratory Studies are encouraged to take PSYCH 230 (Career Explorations) during the first semester of the sophomore year. This course will assist the student in clarifying individual interests and demonstrate how combining interests, skills, talents and personal values relate to potential career options.

**The Honors College**

Director: Dr. Craig A. Fuchs
Telephone: 620-235-4176
Office: 212 Russ Hall
e-mail: cfuchs@pittstate.edu

The primary mission of the Honors College is to provide a more meaningful educational experience for select superior students. The Honors College curriculum at the freshman-sophomore level offers intellectually stimulating general education courses. The junior-senior level Honors College students become integrated into the Departmental Academic Honors program.

First and foremost, the Honors College at Pittsburg State University has the goal of not only attracting high-quality applicants, but also of retaining them as high-achieving students until graduation.

A second goal is to provide educationally enriched experiences (reflected both in and out of the classroom) for the members of Pittsburg State University’s Honors College.

A third goal is to provide a socially responsive, supportive environment to the students in the Honors College whereby members feel personally connected to others throughout the college.

A final goal is to promote a sound start for incoming freshmen. Freshmen begin bonding from the beginning through overnight orientation experiences (including team-building activities), enrollment in an Honors Freshmen Experience course, and completion of a community service requirement.

Honors College members are a carefully screened select group of scholars. Freshmen, to be eligible for application, must have a 28 ACT composite or equivalent, a minimum 3.50 (unweighted) high school grade point average on a four point scale. A transcript verifying class rank, GPA, ACT, a completed Honors College application form displaying activities and awards, an essay, and recommendation forms comprise the application package. The deadline for applicants is January 15.

Application packets may be obtained on-line at [http://www.pittstate.edu/academics/honors/](http://www.pittstate.edu/academics/honors/).

A total of 36 students are selected for the Honors College each year and they receive scholarships as well as the opportunity to participate in Honors programs. Presidential Scholars receive an academic scholarship in the amount of $9,500 per year with a one-time study abroad stipend of $2,000. University Scholars receive an academic scholarship in the amount of $4,500 per
year with a one-time study abroad stipend of up to $2,000. These scholarships are renewable annually provided the student maintains a full-time Pittsburg State University enrollment, active participation in Honors, participates in one community service project each semester, and a 3.50 grade point average. Crimson and Gold Scholars receive the $1200 academic Achievement Award from the Office of Admissions, as well as a $1000 award from the Honors College, renewable for a second year if criteria are met. Honors College graduates receive special recognition at commencement ceremonies and their college transcripts indicate completion of the university and applicable Departmental Academic Honors programs.

Members of the Honors College have the opportunity to enroll in select honors sections of the general education program. Freshman students in the Honors College will automatically be eligible for an honors section of ENGL 190 Honors English Composition. They will also take an honors section of UGS 100 The Freshman Experience during their first semester. Honors sections are generally limited to 25 students, which allows for increased student interaction and course enhancement.

Student Diversity Programs
Director: Deatrea S. Rose
Room: 104 Horace Mann
Telephone: 620-235-6556
e-mail: drose@pittstate.edu
http://www.pittstate.edu/office/diversity/

The Office of Student Diversity (OSD), 104 Horace Mann, offers its programs and services to students from all backgrounds and cultures.

The mission of OSD is to provide support and resources that promote student success at Pittsburg State University, helping students gain awareness and appreciation of the cultural, racial, and ethnic diversities represented in the university community. OSD’s Multicultural Resource Center provides a library of books, films and documents that can benefit academic programs and research.

International Programs and Services
Director of International Affairs: Charles Olcese
Telephone: 620-235-4680
Office: 118 Whitesitt Hall
e-mail: colcese@pittstate.edu
http://www.pittstate.edu/office/international/index.do

The office of International Programs and Services (IPSO) provides leadership and coordination to the university’s international efforts among students. The office staff offer a variety of services that include programs for all students at Pittsburg State University, from services for our international student community to programs for American students to help internationalize their experience at Pittsburg State University. Our main services include the following:

International Student Services

IPSO staff assist international students with their transition into American culture, advise international students on immigration and visa regulations, along with augmenting their cultural experience outside the classroom. In order to meet these goals, IPSO provides an array of services throughout the year which address the needs of our international students.

Each semester new international students are required to attend an orientation. During this orientation they are introduced to the American educational system and PSU student life. Seminars are given on cultural adjustment, academic advising, immigration issues, insurance information, and enrollment assistance.

IPSO advises F1 and J1 visa students on all visa related issues and matters necessary to maintain proper immigration status in the US. This includes special work permissions and changes of visa status and official letters for immigration related processes.

Every month the IPSO staff assists with activities and programs which give all Pittsburg State University students an opportunity to learn more about cultures from all over the world, and allow international students an insight on American life. In addition to the campus activities available, IPSO organizes international gatherings, tea times, sporting events, and educational excursions.
Study Abroad

Pittsburg State University is dedicated to offering a variety of opportunities for students to have an international experience abroad during their college career. Pittsburg State University students can study abroad through faculty led group programs, exchange partnerships which Pittsburg State University has developed with universities abroad, the Pittsburg State University in Paraguay program, and programs outside of Pittsburg State University as long as they are pre-approved. The study abroad staff works with students through the stages of study abroad from choosing a program to preparing for the program to their return to the university. The staff also works closely with the faculty who are leading students abroad. Pittsburg State University is proud to offer Study Abroad Travel Stipends to assist our students in the added expenses of study abroad.

International Knowledge and Experience Certificate

The International Knowledge and Experience (IKE) program was created to offer a broad based internationalization opportunity for all Pittsburg State University undergraduates – especially those who find it difficult to study abroad during their college experience. Through this program, Pittsburg State University promotes international experiences amongst Pittsburg State University students and recognizes students that are involved internationally on and off campus. The IKE certificate consists of three components of international experience: Study Abroad, Academic Courses, and Co-Curricular Activities.

Students must complete two of the three components to earn the IKE certificate. Students that choose to complete the Academic Component along with another component will earn a notation on their academic transcript. All students who complete the program receive a certificate and a detailed listing of the activities they have fulfilled to achieve this certificate. The program is open to all undergraduate students including transfer students and international students.

Intensive English Program

Intensive English Program

Director: Christine Mekkaoui
Telephone: 620-235-4644
Office: 120-C Whitesitt Hall
e-mail: cmekkaou@pittstate.edu

The mission of the Intensive English Program is to help international students to achieve their academic and professional goals through the development of their English language skills.

The IEP is a full-time program featuring four eight-week sessions during the academic year and one eight-week session during the summer. Classes are offered at six levels, from beginning to advanced. Students spend approximately 20 hours per week in class, taking courses in grammar, reading, listening/speaking, writing, and academic preparation. The program is flexible, and every effort is made to meet individual student needs.

The successful completion of the highest level of the Intensive English Program, IEP 061 and IEP 062, is the equivalent of a 79 iBT, 213 cBT or 550 pBT TOEFL score. It can be substituted for the TOEFL requirement for admission purposes to Pittsburg State University for most undergraduate degrees and graduate programs.

All members of the Intensive English Program faculty hold at least a master's degree in teaching English as a foreign language. The instructors are full-time faculty with teaching experience both in the United States and overseas. Most faculty members have successfully mastered a foreign language, making them aware of the language learning process that their students face.

Kansas/Paraguay Exchange Program

Chuck Olcese, Coordinator
118 Whitesitt Hall
620-235-4680
e-mail: colcese@pittstate.edu

The university is a member of the six Board of Regents universities in Kansas that have a reciprocal faculty and student exchange program with the two universities in Paraguay—the National University of Asuncion and the Catholic University of Our Lady of Asuncion. This
program provides the opportunity for faculty and students to study, to do research, and to live in Paraguay, with students also having the opportunity to earn academic credit.

**Pittsburg State University in Paraguay**

**Program**

Dr. Alice Sagehorn, Director  
201 Hughes Hall  
620-235-4499  
e-mail: asagehor@pittstate.edu

The purpose of the Pittsburg State University in Paraguay program is two-fold: 1) Offer Pittsburg State University General Education courses in Asuncion, Paraguay, 2) Kansas students can have a study abroad experience in a non-English speaking country and take Pittsburg State University courses that meet General Education Requirements. International students can complete their course of study at Pittsburg State University or any Kansas or United States university.

The courses are taught in Asuncion, Paraguay by Pittsburg State University or adjunct instructors in a two year cycle with each course taught one time every two years. The General Education courses are taught in English and use the same syllabus and objectives as the courses offered on the Pittsburg campus.

International students follow the regular admissions policies of Pittsburg State University and a TOEFL score of 520 or Cambridge Language Band score of 6.5 or ACT 21+ or SAT 1900+. If a student graduates high school where English is the language of instruction, the TOEFL is waived.

Home stays are available for Kansas students in Asuncion, Paraguay. Interested students should contact the Study Abroad coordinator in the International Programs Office. Interested Pittsburg State University faculty should contact the director of the program.

**Campus Life and Auxiliary Services**

Steve Erwin, Associate Vice President  
Room: 203 Russ Hall  
Telephone: 620-235-4231  
e-mail: serwin@pittstate.edu  
http://www.pittstate.edu/office/campus-life/

The area of Campus Life and Auxiliary Services coordinates a number of programs and services which offers support to students to ensure success within the overall university experience. Major services of the area are: Gorilla Bookstore, Campus Activities Center, Commerce Bank, Dining Services (Catering, Resident Dining-Gibson Dining Hall, The Gorilla Crossing, The University Club, KTC Café, and Axe Grind), Overman Student Center, Prevention and Wellness, Student Health Center, Student Organizations, Student Recreation Center and Intramurals, Gorilla Card Office, University Counseling Services, University Housing, University Police and Parking Services and Student Conduct.

Students who have questions about any services or regulations at Pittsburg State University should contact the Office of the Associate Vice President for Campus Life and Auxiliary Services, 203 Russ Hall, 620-235-4231.

**Bookstore**

Fawn Chesnut, Director  
Room: Main Level Overman Student Center  
Telephone: 620-235-4875  
e-mail: fbaker@pittstate.edu  
http://pittstate.bncollege.com/

The Gorilla Bookstore, located in the Overman Student Center, can provide your entire textbook and school/office supply needs. There is also a full line of “Gorilla-Wear” and “Pitt State” gifts to show your Pittsburg State University pride! Other merchandise includes nook devices and accessories, general reading and reference books and convenience items. Bookstore service areas include textbook rentals, textbook buyback, and special-order service in text and general books. Graduation regalia for Pittsburg State University graduates and faculty are also available. Textbooks and merchandise can also be ordered online through the bookstore’s Web site at www.pittstate.bkstore.com.
Campus Activities Center
David Adams, Assistant Director/Campus Activities Room: Lower Level-Overman Student Center Telephone: 620-235-4795 e-mail: cac@pittstate.edu http://www.pittstate.edu/offices/activities/

Located in the lower level of the Overman Student Center, the Campus Activities Center develops campus-wide programs, works with campus organizations, and has leadership resources available for the campus. Contact the Campus Activities Center (ext. 4795 or cac@pittstate.edu) regarding: Apple Day, Family Weekend, OFF2PSU, Welcome Week, Homecoming, Performing Arts and Lecture Series, Student Organizations, Fraternity/Sorority Life and Leadership Programs.

Commerce Bank
Lisa Allen, Financial Services Manager Room: Main Level-Overman Student Center Telephone: 620-235-4574 e-mail: bank@pittstate.edu

Commerce Bank offers a full service branch at Pittsburg State University to all students, faculty, and staff. Open Monday-Friday from 8:30 a.m. – 4:30 p.m. Commerce offers the Gorilla Checking Account free to all students, faculty and staff. The University's Gorilla Card also serves as a Commerce ATM card and as a PIN based debit card.

Dining Services
Todd Wixson, General Manager Room: 211 Student Center Telephone: 620-235-4994 e-mail: sodexo@pittstate.edu http://www.gorilladining.com

Our dining program has been designed with busy students in mind. Flexibility, varied hours and a choice of dining locations will enable students to find the perfect place at the perfect time. Dining Services offers a dining program complete with signature brands and a wide variety of menu selections.

Resident Dining-Gibson Dining Hall
Gibson Dining Hall is located west of Nation Hall and north of Dellinger Hall and features a wide variety of fresh food designed to satisfy everyone’s appetite with food choices to rival your favorite restaurants. Gibson is an all you care to eat location.

The Gorilla Crossing
The Gorilla Crossing is located on the first floor of the Overman Student Center. The Gorilla Crossing consists of several restaurants to cater to a variety of tastes and budgets. This “food court” style location provides a calming retreat from a hectic day or a great place to meet up with friends.

The University Club
The University Club is located on the lower level of the Overman Student Center and features Jazzman’s, our coffee house and Ultimate Baja. The University Club (“U-Club”) is a relaxing environment that features a cyber café.

KTC Café
The KTC Café provides a conveniently located dining option for students taking classes on the east side of campus. KTC Café can be found in the southeast corner of the Kansas Technology Center.

Axe Grind
The Axe Grind is located on the first floor of the Leonard Axe library and proudly serves Starbucks Coffee's and drinks.

Catering
The catering operation "caters" to the campus community; our faculty, the departments and our students. Catering offers everything from informal pizza parties to elegant, multi-course meals.
Gorilla Card Office
Mark Seely, Assistant Director
Room: Main Level, Overman Student Center
Telephone: 620-235-6147
e-mail: gorillacard@pittstate.edu
http://www.pittstate.edu/audiences/current-students/gorilla-card/index.dot

The Pitt State Gorilla Card is the official photo ID card for Pittsburg State University. The Gorilla Card is used to access services on campus including meal plan access at Gibson Dining Hall, access to the Student Recreation Center, and to receive athletic and other event tickets. Your Gorilla Card can be used as a prepaid debit card with your Banana Bucks account at many locations on campus, and as a PIN-based debit card with your Gorilla Checking Account through Commerce Bank.

All students, faculty, and staff will have a Gorilla Card made with their photograph and ID number. To receive your card, stop by the Gorilla Card Office located on the main level in the Overman Student Center between 8:30 a.m. and 4:00 p.m., Monday through Friday. Bring your driver’s license, passport or other form of official government issued identification. Your first Gorilla Card is provided with no cost. There is a fee for a replacement card.

Overman Student Center
Jeff Steinmiller, Director
Room: 302 E. Cleveland
Telephone: 620-235-4791
e-mail: stuc@pittstate.edu
http://www.pittstate.edu/campus-life/student-center/

The Overman Student Center provides students, faculty, staff, alumni and guests with facilities, programs and services to meet the needs of daily life on campus. Whether you are visiting the Student Center for a meeting, to relax, eat, shop, study or just talk with friends, we welcome your support and patronage.

Main Level: Information Desk, University Gorilla Card Office, Commerce Bank Branch, Vending Machines, Gorilla Bookstore, Student Center Administrative Offices, Gorilla Crossing – Food Court, Catering Services.

Lower Level: Cyber-Café, University Club – Food Court, Ultimate Baja, Jazzman’s Coffee Bar, Relaxation Room, Mini Theater, Billiards, Ping Pong, Foosball, and Shuffleboard. Campus Activities Center, Greek Life, Performing Arts & Lecture Series, Student Organization Mailboxes, Student Government Association, Student Activities Council, Jungle Lounge – Big Screen TV, Student Legal Aid, Wellness and Prevention, Gorilla Bookstore, Gorilla Lounge, Automatic Teller (Cash) Machines (ATM).


Prevention and Wellness
JT Knoll, Prevention and Wellness Coordinator
Room: Lower Level-Overman Student Center
Telephone: 620-235-4062
e-mail: jknoll@pittstate.edu
http://www.pittstate.edu/office/activities/programs/student-wellness/

Student Prevention and Wellness, a component of Campus Activities, utilizes the prevention theories of responsible decision making, harm reduction, social norming and environmental management. Student Prevention and Wellness provides a comprehensive, campus-wide, year-long prevention and wellness approach that begins during orientation and continues throughout the year. Programs are presented in academic classrooms, fraternity and sorority houses, and residence halls. In addition, various publications, educational posters and displays are used to promote prevention and wellness issues. The office plans ongoing activities and events that support prevention and wellness as it relates to issues such as nutrition, mental health, self-esteem, stress-reduction, healthy relationships, alcohol and drug abuse, eating disorders, smoking, depression and suicide.
Bryant Student Health Center
Rita Girth, Director
Location: 1801 S. Broadway
Telephone: 620-235-4452
e-mail: rgirth@pittstate.edu
http://www.pittstate.edu/office/health/

The mission of the Student Health Services is to promote the health and well being of students in order to enhance their educational experience. The health center is an outpatient ambulatory care facility supported by a physician supervised medical staff designed to provide high quality, convenient, cost-effective health services. Services available include: treatment for mild to moderate illness and injuries, women’s/men’s health, immunizations/allergy injections, contraceptive counseling, pharmacy/lab services, radiology services, specialty clinics, and referral services. The Student Health Center is located at the corner of Lindburg and Broadway Streets.

Student Organizations
Ashely Conyers, Program Coordinator/CAC
Room: Overman Student Center, Room 104
Telephone: 620-235-4795
e-mail: aconyers@pittstate.edu
http://www.pittstate.edu/office/activities/organizations/

For a current listing of the 150-plus registered organizations on campus, visit the web site at http://www.pittstate.edu/office/activities/organizations/. Requests for additional information or questions can be directed to the Campus Activities Center (lower level, Overman Student Center). The organizations are classified as academic, cultural, Fraternity/Sorority, political, honorary, religious, service, special interest, or recreational. There should be something available of interest to you, and if not, learn how to create your own organization.

Student Recreation Center
Vince Daino, Director
Location: 2001 S. Rouse Street
Telephone: 620-235-6565
e-mail: crec@pittstate.edu
http://www.pittstate.edu/recsports

The Student Recreation Center (SRC) is home to the Department of Campus Recreation. Other departments and programs residing within the SRC are; Department of Health, Human Performance and Recreation (HHPR), Department of Military Science (ROTC) and local National Guard units. This facility has three multipurpose basketball courts, a cardio/fitness center with treadmills, ellipticals, bikes, weight machines, free weights, aerobics studio, and an elevated 1/10 of a mile walking/jogging track. The Department of Campus Recreation also oversees the daily operation and scheduling of the Garfield Weede Gymnasium swimming pool, racquetball courts, outdoor basketball courts, sand volleyball, tennis courts, softball fields and green space for athletic activities. For more information and hours of operation, visit http://www.pittstate.edu/recsports.

University Counseling Services
Dr. Steve Mayhew, Director of University Counseling Services
Location: Bryant Student Health Center, 1801 S. Broadway
Telephone: 620-235-4452
e-mail: ucoun@pittstate.edu
http://www.pittstate.edu/office/counseling/

University students normally encounter various stresses during their college experience. These may include adjusting to new academic demands, feelings of anxiety or depression, making and maintaining new friendships, and adjusting to changing relationships with parents and other family members. However, stress can become overwhelming and negatively impact one’s college experience and academic progress.

University Counseling Services (UCS) is designed to help students manage many of the concerns and stresses associated with college life. UCS offers a range of counseling and psychological services for current students of Pittsburg State University. Services are provided in a supportive and confidential atmosphere. Students present with a variety of concerns including depression, anxiety, family issues, communication skills, stress, attention/concentration problems, and relationship difficulties.
Many problems can be addressed using a brief, solution-focused approach, often requiring only a few visits. Individual counseling sessions are usually 25 to 50 minutes in length depending on the needs of the student. Students can call the Bryant Student Health Center at 620-235-4452 for an appointment.

University Housing
Connie Malle, Director
Room: 209 Horace Mann
Telephone: 620-235-4245 or 1-800-854-PITT
e-mail: cmalle@pittstate.edu
http://www.pittstate.edu/office/housing/

The department of University Housing maintains and supervises Pittsburg State University’s residence halls and Crimson Village Apartments. University Housing provides safe, attractive and comfortable residential facilities and a well-balanced, attractive food service program. The residence halls provide an environment, which enhances students’ intellectual and social development. Each building is staffed with student-oriented professionals and paraprofessionals. Summer programs include summer school housing along with camps and conferences requiring campus housing.

Campus Residency Policy

Pittsburg State University requires that all first-year students live in the residence halls for their first two academic semesters on campus and purchase either the seven-day access meal plan or the 14 day access meal plan. All other students may live in housing of their choice. Prior to signing the contract, exceptions to the policy will normally be granted where any of the following circumstances exist:

- The student lives at home with parents or guardians and is commuting within 50 miles of the Pittsburg State University campus.
- The student is married and living with his or her spouse.
- The student is a veteran with one or more years of active service.
- The student is 21 years or older.
- The student is a transfer student is transferring 24 hours of credit or more. (Non- Concurrent Enrollment)

Any other exceptions must be reviewed and considered prior to submitting a contract for a residence hall assignment. First year students may not cancel their contract once it is submitted if they remain enrolled at the university.

Crimson Village Apartments

Located on the east side of the campus, the Crimson Village apartments offer convenient housing to Pittsburg State University students. The complex consists of 40 units – 24 two-bedroom apartments and 16 three-bedroom apartments. All units have private storage areas, carport, stove, refrigerator, washer and dryer. Apartments are un-furnished. The complex also includes a fenced play area. All Pittsburg State University student families, in which at least one member of the household is a full-time student for each semester and meet income eligibility requirements for Housing and Urban Development (HUD), are eligible to live in Crimson Village. Assignment preference is given to families composed of married or single parent students. Other non-traditional age students may be considered depending on qualifications, overall occupancy, and demand by the above groups.

University Police and Parking Services

Mike McCracken, Director
Location: 37 Shirk Hall
Telephone: 620-235-4624
e-mail: upps@pittstate.edu
http://www.pittstate.edu/office/police/

The University Police provide police protection services to the campus, Pittsburg State University Foundation property, parking lots, residence halls, and the fraternities and sororities 24 hours per day, 365 days per year. Pittsburg State University police officers are commissioned by authority of the State of Kansas under K.S.A. 76-726 and have the same law enforcement powers and responsibilities as the local police and sheriff in your home community. Officers are responsible for a full range of public safety services, including all crime reports, investigations, medical emergencies, fire emergencies, traffic accidents, enforcement of underage drinking laws, use of controlled substances, weapons, and all other incidents requiring police assistance. Annual crime statistics are
available on the department web site at http://www.pittstate.edu/office/police/. Pittsburg State University police share concurrent jurisdiction on campus with city, county and state law enforcement agencies. University police officers also share jurisdiction with the City of Pittsburg police in areas of the city generally south of Quincy Street and within city limits.

All campus parking shall be restricted to vehicles with permits. Application may be made for a parking permit at https://go.pittstate.edu/upps/parkingpermit or in person at Pittsburg State University Police and Parking Services, Shirk Hall, 1501 S. Joplin, Pittsburg, Kansas. Parking fees for students are included in student fees. The Parking and Traffic Rules and Regulations can be found at http://www.pittstate.edu/office/police/parking-and-traffic-rules.dot or you can obtain a copy from the Pittsburg State University Police Department.

Student Conduct
Steve Erwin, Associate Vice President
Room: 203 Russ Hall
Telephone: 620-235-4231
e-mail: serwin@pittstate.edu
http://www.pittstate.edu/office/campus-life/

Pittsburg State University assumes that men and women of college age are able and willing to maintain standards of self-discipline appropriate to membership in a university community. Students are expected to consider the rights of others and to use mature and reasonable judgment concerning their actions while students at Pittsburg State University.

The administration of the university has the inherent responsibility to protect the educational purpose through regulation of the use of university facilities, and through the setting of standards of conduct and scholarship for students.

All students are expected to abide by federal, state, and local statutes and/or university regulations as published in the Code of Student Rights & Responsibilities posted on the Web at http://www.pittstate.edu/audiences/current-students/policies/rights-and-responsibilities/.

Center for Student Accommodations
Alison Adams, M5, Coordinator of the Center for Student Accommodations
Room: 103 Bryant Student Health Center, 1801 S Broadway
Telephone: 620-235-4309
e-mail: aadams@pittstate.edu
http://www.pittstate.edu/office/counseling/center-for-student-accommodations.dot

Pittsburg State University is committed to the provisions of Section 504 of Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, civil rights laws designed to prohibit discrimination on the basis of disability. Pittsburg State University strives to create an accessible university community where individuals with disabilities have an equal opportunity to fully participate in all aspects of the educational environment.

The Center for Student Accommodations (CSA) provides educational support services to currently enrolled Pittsburg State University students with a diagnosed Learning Disability, Attention Deficit/Hyperactivity Disorder, or a Physical/Mental Illness which substantially impairs one or more major life activities. Students with disabilities may qualify for educational accommodations to provide equal access to educational opportunity.

Reasonable accommodations depend upon the nature and degree of severity of the documented disability. While the Americans with Disabilities Act of 1990 requires that priority consideration be given to the specific methods requested by the student, it does not imply that a particular accommodation must be granted if it is deemed unreasonable and if other suitable techniques are available.

The specific type of accommodation is determined on an individual basis. The CSA coordinator attempts to match the student with the appropriate accommodation. Reasonable accommodations are typically categorized on the basis of: (a) mode of presentation (e.g., note-taker for class lectures, reader for exams); (b) mode of expression (e.g., use of computer for written exams), (c) location and setting (e.g., distraction reduced testing location), and (d) time
(e.g., extra time for tests). The Center for Student Accommodations can also provide study skill strategies and direct students to other appropriate university support services.

To apply for services:

1. Apply for admission to Pittsburg State University.
2. Contact the Coordinator for the Center for Student Accommodations for an appointment to complete the CSA Application materials and review your eligibility for accommodations.
3. Send a copy of your most recent disability documentation from your school and/or qualified healthcare professional to the Center for Student Accommodations, 1801 S Broadway, Pittsburg, KS 66762.

Assistance for Students with Disabilities
Cindy Johnson, Director Equal Opportunity/ Affirmative Action
Room: 218 B Russ Hall
Telephone: 620-235-4189
http://www.pittstate.edu/office/eooa/
e-mail: cjohnso1@pittstate.edu

Allison Adams, MS, Center for Student Accommodations
Room: Bryant Student Health Center
Telephone: 620-235-4452
e-mail: aadams@pittstate.edu
http://www.pittstate.edu/office/counseling/center-for-student-accommodations.dot

Pittsburg State University is committed to a policy of educational equity. Accordingly, the university admits students, grants financial aid and scholarships, conducts all educational programs, activities, and employment practices without regard to race, color, religion, sex, national origin, sexual orientation, age, marital status, ancestry or disabilities. Students seeking assistance with academic programs because of physical disabilities are to contact the Director of Equal Opportunity, or because of emotional, mental, or learning disabilities, contact the Coordinator of the Center for Student Accommodations located in the Bryant Student Health Center.

Career Services
Mindy Cloninger, Director
Room: 202 & 203 Horace Mann – Student Welcoming Center
Telephone: 620-235-4140
http://www.pittstate.edu/office/careers/
e-mail: careers@pittstate.edu

The Office of Career Services provides a full range of opportunities to students and alumni. Individual career counseling and consultation is available by appointment. Self-assessment tools and computer-assisted guidance programs are often utilized in this process. Career information fairs are held each year for the business, government, not-for-profit, technology and health fields, teacher employment, and internship/summer employment. These provide all students the opportunity to investigate occupations and companies, practice interview techniques, and make valuable contacts. Other services include on-campus interviews, mock interviews, and internship search assistance.

Graduating students and alumni can request credential service or register with the Gorillas4Hire program for access to job vacancies, on-campus interviews and sign-up, and resume referral to potential employers. Please contact the office by calling (620) 235-4140 to receive a password to Gorillas4Hire via the Internet, or visit our Web Page at http://www.pittstate.edu/office/careers/. A minimal fee is charged for credential service for education majors. There is no fee for a Gorillas4Hire password if an individual is currently enrolled in a course at Pittsburg State University.

The Career Resource Center, 202 Horace Mann, maintains an extensive collection of resources and a computer lab for individuals to access Gorillas4Hire, career guidance software programs, information on occupations, business and government employers, school districts, job search skills and techniques, and graduate schools. Peer advisors are available during office hours in the career resource center to assist students in developing job search skills, tools, strategies. Skype is available in Career Services for remote job interviews.
Student Employment
Mindy Cloninger, Director
Room: 202 Horace Mann – Student Welcoming Center
Telephone: 620-235-4145
http://www.pittstate.edu/office/careers/
e-mail: careers@pittstate.edu

A part-time job can be a valuable and rewarding experience. More than 900 Pittsburg State University students work on campus. There are a wide variety of student employment positions. Some of these include: student trainers, computer technicians, clerical assistants, photographers, tutors, lab assistants, lifeguards, research assistants, managers, reporters/writers, cashiers, painters, secretaries, custodians, intramural officials, and many more!

Students must be enrolled full-time during the academic year to be appointed to a student position. During the academic year, the full-time student is enrolled in at least six (6) credit hours. Students not enrolled in summer school may work as student employees provided they have applied and been accepted for the fall semester. Full-time status for the summer session is three (3) credit hours or more. University policy limits a student to 20 hours of on-campus employment per week when classes are in session.

Some part-time positions require students to demonstrate financial need (Federal Work Study), while others are open to all students (regular state employment). Most student employment positions are paid the federal minimum wage. Students are eligible, however, to receive a .25 cent raise for each year of service. The department has discretion to award the pay increase to eligible student employees.

In addition to the on-campus employment positions, the Student Employment office also provides information regarding job opportunities off-campus. These off-campus positions can be viewed within the Gorillas4Hire program. The program also provides students an opportunity to participate in various off-campus jobs such as community service projects, childcare, literacy training, and education (tutoring).

The Student Employment office is located in 202 Horace Mann. Students are encouraged to e-mail careers@pittstate.edu or contact the office for a free password to access Gorillas4Hire. The phone number for the Student Employment Office is (620) 235-4145.

LEARNING RESOURCES DIVISION
Library Services
David P. Bunnell, Ed.D., Dean of Library Services
Room 109- Leonard H. Axe Library
Telephone: (620) 235-4880
Website: http://library.pittstate.edu/
E-mail: dbunnell@pittstate.edu

The mission of Library Services is to provide materials and services that effectively enable individuals in the Pittsburg State University academic community to attain their learning, teaching, research, and service goals. The mission is accomplished through the creation and maintenance of collections, provision of facilities and equipment to enhance learning through the various formats, provision of skilled staff, and efficient use of resources. A further mission is to share resources by cooperating with libraries throughout the region and to be a source of specialized and/or scholarly information for area residents. As the library holds valuable collections of local and University interest, it serves a unique resource for research in local history.

The Leonard H. Axe Library and the Kansas Technology Center Library make up the Pittsburg State University Library Services. The Pittsburg State University libraries are a resource for all academic and supporting areas in the acquisition of information that will enhance research and learning. It also serves as a major resource for library and information services to the geographical region increasing Pittsburg State University’s exposure to our wider community. The Library has been an innovator in new learning technologies and is relying heavily on quality electronic information sources that allow inclusion in Canvas and similar course management systems. Most of the electronic library resources are available for Pittsburg State University students and faculty anywhere they may be through use of the Internet. Information that is held in other libraries throughout the world is attainable through Interlibrary Loan, thus expanding resources available to our students and faculty. Library Services also maintains
collections of materials relevant to the history and culture of our region and the archives of the university. The library as a “place” is also being enhanced to create a pleasant environment for study and research. Access to information has expanded beyond the walls of the Library through the innovative uses of on-line resources.

The Leonard H. Axe Library, open almost 90 hours per week and with holdings of over 700,000 print items, 800,000 microforms, and numerous on-line resources, offers a comfortable atmosphere for study and research. The Library features wireless internet connections throughout the building. Assistance in finding information on both general and specific research topics are provided in person, through the library website (http://library.pittstate.edu), telephone (620-235-4894), or e-mail (reference@library.pittstate.edu).

Information Services
Angela Neria, Chief Information Officer
Room: 157 Kelce
Telephone: 620-235-4603
http://www.pittstate.edu/office/information-services/
e-mail: aneria@pittstate.edu

The Office of Information Services (OIS) at Pittsburg State University furnishes the campus with information technology to assist the community’s informational needs. This is accomplished through campus-wide access and integrated education of the information, services and resources available to the campus community. OIS is committed to assisting the campus community in the appropriate use of information systems in academic and administrative environments.

Academic Computing
OIS provides professional knowledge and skills to faculty, staff and students. The focus is on access, support, training and integration of appropriate computing technology through collaboration between OIS and the campus community. Both Windows and Macintosh systems are widely supported.

Analysis and Programming Services
Pittsburg State University maintains and develops a wide array of applications for administrative and academic use. OIS analyst and systems programmers support over 20 core applications that include Web-based applications for student advising, degree audits, transcripts, and course enrollment. Each is integrated with the campus databases to provide a seamless system to students, faculty and staff.

Communications Services
Pittsburg State University communications are carried over both copper and fiber managed by OIS’ professional team of technicians and managers. The phone switch services approximately 3000 phones and voicemail boxes for the campus and residence halls. The campus data network is based on gigabit Ethernet with fiber to all academic and administrative buildings. Wireless access is available in all buildings and public areas across campus (e.g., the Oval) including residential housing.

Gorilla Geeks Help Desk
The OIS Campus Services/Gorilla Geeks Help Desk is responsible for assisting faculty, staff and students with various technology needs. Services available include help with GUS and GusPINs, Pittsburg State University email, assistance with campus system problems and support of the campus wireless network.

In addition the center is in place to help students with technology needs that are essential for successful university studies in today’s world. Student services include assistance with educational software packages used on campus including Microsoft OS, Office applications, basic Canvas support and other campus applications; basic help with computer hardware or software problems; wireless connectivity issues; and assist in configuring new computers.

The center is located in 109 Whitesitt and has extended hours during the fall and spring semesters.
Systems Support

The OIS systems support team provides development, maintenance and expansion for campus-wide servers using UNIX and Windows. Goals set by the Systems Group are those of high server reliability and fast access to ensure uninterrupted and quality services for both academic and administrative uses.

CENTER FOR TEACHING, LEARNING AND TECHNOLOGY

Brenda Frieden, Director
Room: 332 Hartman Hall
Telephone: 620-235-4840
http://www.pittstate.edu/office/tltcenter/index.dot
e-mail: tsberman@pittstate.edu

The mission of the Center for Teaching, Learning, and Technology is to advance teaching effectiveness and improve student learning by providing an infrastructure of support for the innovative use of both new and traditional educational methods and technology integration. The vision of the Center for Teaching, Learning, and Technology is to develop and share teaching, learning, and technology resources and offer sustainable professional development to promote faculty achievement in teaching excellence. The Center for Teaching, Learning, and Technology supports the academic mission of the University by providing opportunities for professional development, technology integration, and promoting excellence in teaching and enhancement of student learning. The Center for Teaching, Learning, and Technology also provides support for delivery of classes and programs using interactive distance learning technologies.

CONTINUING STUDIES

Pawan Kahol, Dean
Room: 112 Russ Hall
Telephone: 620-235-4223
e-mail: pkahol@pittstate.edu
http://www.pittstate.edu/office/graduate/

The Division of Graduate and Continuing Studies, in cooperation with university academic departments, provides courses and educational programs throughout the university’s service region. The Pittsburg State University Kansas City Metro Center serves as an outreach and extension center for academic programs and university activities in the greater Kansas City Metropolitan area.

Individuals interested in any of these services may contact one of the Graduate and Continuing Studies professional staff in Room 112 Russ Hall, telephone 620-235-4223, or visit the Graduate and Continuing Studies web page at http://www.pittstate.edu/office/graduate/. The Kansas City Metro Center is located at 12345 W. 95th Street, Suite 204, in Lenexa, telephone 913-529-4487.

TICKET OFFICE

Jill Minneman, Director of Ticket Operations
Room: Room 137, Weede Building
Telephone: 620-235-4796
e-mail: tickets@pittstate.edu
http://www.pittstate.edu/office/tickets/

The Pittsburg State University Ticket Office is housed in the Athletic Department (Weede Building) and handles all athletics ticket operations. The office also serves as the central box office for the university. The Ticket Office is open Monday through Friday, 8:30 a.m. to 4:30 p.m. Students receive tickets to many university sponsored events at no additional cost, including most regular season athletic events, the Performing Arts and Lecture Series, the Solo and Chamber Music Series, and the Pittsburg State University Communication Plays. Students must present a valid student ID to receive their tickets.
The Graduate School
Dean: Pawan Kahol
Telephone: 620-235-4223
Fax: 620-235-4219
Room: 112 Russ Hall
email: pkahol@pittstate.edu

Graduate School Overview
Pittsburg State University was originally founded as the Kansas State Manual Training Normal School of Pittsburg in 1903. It became a four-year institution in 1913 and was renamed Kansas State Teachers College of Pittsburg in 1932. The Graduate Division was organized in 1929 to confer the Master of Science degree. In 1958 the College was authorized to grant the Specialist in Education degree. One year later the name was changed to Kansas State College of Pittsburg and the Graduate Division was then authorized by the Board of Regents to confer the Master of Arts degree in history, English, and mathematics in addition to the other degrees. Art and communication have been added as options under the Master of Arts degree. The Master of Music was approved in 1968, and the Master of Business Administration in 1974. In 1977 the name of the institution was changed to Pittsburg State University and in 1984 the name of the Graduate Division was changed to the Graduate School.

The Graduate School grants degrees on two levels: the master's degree and the Specialist in Education for study beyond the master's degree. The master's degree is designed to introduce the student to advanced study and research, with emphasis upon specialized, in-depth, and independent study. In the education professions, graduate study at the master's degree level is designed to increase the competence of teachers and other school personnel. For professionals in fields other than education, the degree objective is to provide additional preparation for careers in the arts and the humanities, science, business and industry, technology management and/or government service. The degree is also designed for those who wish to gain opportunities for cultural advancement in the field of general education. The master's degree is not a terminal degree. It may be a step toward the Specialist in Education degree or toward the achievement of a doctoral degree.

The Specialist in Education degree is a professional degree providing advanced study for educators. The specialist degree program is designed to build upon students' professional and academic experience. A minimum of 30 graduate hours beyond the master's degree is required.

In addition to degree programs, the university also provides an opportunity as a non-degree seeking student for those who wish to do graduate study for personal and professional reasons without study toward a degree. Professional development opportunities to satisfy licensure/certification requirements for teachers, psychologists, counselors and other professionals are also available.

Graduate study is under the general supervision of the graduate faculty, who are appointed by the president of the university. The majority of graduate faculty members have Doctor of Philosophy or Doctor of Education degrees, although non-doctoral faculty members especially qualified in specific content fields may be appointed to the graduate faculty.

Graduate Degrees and Options
Master's Degrees Offered

- Biology – MS
- Business Administration (Accounting) – MBA
- Business Administration (General Administration) – MBA
- Business Administration (International Business) – MBA
- Career & Technical Education (Family & Consumer Sciences) – MS
- Career & Technical Education (College Teaching) – MS
- Career & Technical Education (Technology Education) – MS
- Career & Technical Education (Technical Teacher Education) – MS
- Chemistry – MS
- Communication – MA
- Counseling (Clinical Mental Health) – MS
- Counseling (School) – MS
- Educational Leadership – MS
- Educational Technology (Library Media) – MS
- Educational Technology (Technology Integration Specialist) – MS
- Engineering Technology – MS
- Engineering Technology (Construction Technical) – MET
Engineering Technology (Electronics Technical) – MET
Engineering Technology (Manufacturing Technical) – MET
Engineering Technology (Mechanical Technical) – MET
Engineering Technology (Plastics Technical) – MET
English (Composition & Rhetoric) – MA
English (Creative Writing) – MA
English (Literature) – MA
English (Professional/Technical Writing) – MA
Health, Human Performance & Recreation (General) – MS
Health, Human Performance & Recreation (Human Performance & Wellness) – MS
Health, Human Performance & Recreation (Sport & Leisure Service Management) – MS
History – MA
Human Resource Development (Management & Consulting) – MS
Human Resource Development (Program Development & Delivery) – MS
Mathematics – MS
Music (Choral Conducting) – MM
Music (Wind Conducting) – MM
Music (Instrumental Education) – MM
Music (Vocal Education) – MM
Music (Performance Harpsichord) – MM
Music (Performance Organ) – MM
Music (Performance Piano) – MM
Music (Performance Percussion) – MM
Music (Performance Strings) – MM
Music (Performance Winds) – MM
Music (Vocal Performance) – MM
Nursing (Family Health Administration) – MSN
Nursing (Family Health Education) – MSN
Nursing (Family Nurse Practitioner) – MSN
Physics – MS
Psychology (Clinical) – MS
Psychology (General) – MS
Reading (Classroom Reading Teacher) – MS
Reading (Reading Specialist Certification) – MS
Special Education Teaching (Adaptive, PreK-12) – MS
Special Education Teaching (Adaptive Functional K-12) – MS
Teaching (Elementary) – MS
Teaching (English for Speakers of Other Languages) – MS
Teaching (Secondary) – MS
Teaching (Secondary) – MA
Teaching (Special Education) – MA
Technology – MS
Technology (Printing Management) – MS

Master’s Program Options

There are three alternative experiences at the master’s degree level. Not all departments offer all three alternatives. Students should consult their major department concerning the availability of options.

Option I: Thesis

The student must present and defend a satisfactory thesis according to the Requirements and Guidelines for the Preparation of a Master’s Thesis manual. The thesis option requires a minimum of 30 credit hours, with no fewer than 15 hours in courses numbered 800-899 and at least 24 hours in courses numbered 700-899. Enrollment in 3 to 6 hours of Research and Thesis course work is required.

Option II: Applied Research

The student will complete research related to a specific problem or will complete a specific advanced project. This option includes creative and aesthetic efforts such as performances, exhibits, or creative writing. The applied research option requires a minimum of 32 hours of coursework with no fewer than 15 credit hours in courses numbered 800-899 and at least 26 hours in courses numbered 700-899. Enrollment in 3 to 6 hours of Research Problem, Methods of Research or Research Seminar course work is required.

Option III: Course Work

The student will complete course work that demonstrates evidence of advanced work in an area of concentration. Departments will require evidence of competency through activities such as research papers, portfolios, practica, internships, comprehensive exams or other individual work. Students should check with their major department for specific requirements for the coursework option. This option requires a minimum of 32 hours of coursework, with no fewer than 15 hours in courses numbered 800-899 and at least 26 hours in courses numbered 700-899.

Specialist in Education Degrees Offered

The degree of Specialist in Education (Ed.S) is the highest degree offered by the university. A minimum of
30 graduate credit hours beyond the master's degree is required, although frequently the specialist degree program may require additional hours. The Specialist in Education degree is available with the following majors:

- Advanced Studies in Leadership (General School Administration or Special Education)
- Counseling (Community or School)
- School Psychology
- Workforce Development and Education

**Specialist in Education Program Options**

The Specialist in Education degree requires a minimum of 30 credit hours of graduate study, of which 21 or more credit hours shall be earned in courses open only to graduate students (800-900 level courses), with at least nine hours in 900-level courses. Other courses numbered below 800 may be taken subject to general graduate regulations, but the degree program must consist primarily of an 800 and above sequence of study and practice of research skills. Independent study in seminars and study and practice of practica are also required. No 500-600 level courses will be applicable to the program. A maximum of nine hours of graduate credit may be transferred from another institution, provided such credit is earned at an accredited institution that grants degrees above the master's level. More than 30 hours may be required for the degree.

There are two alternative experiences at the specialist degree level.

**Option I: Thesis**

Option I requires the completion of four to six hours in Special Research Project 990, in which students must conduct and report in written form the results of field studies or research projects in their discipline. The project is a major part of the degree program; all course work and other experiences are designed to contribute to the research. An advisory committee consisting of three members, with one member from outside the college will be appointed to evaluate the final research project for each student.

Each member of the committee shall receive copies of the reading draft of the project at least five weeks before the date of the proposed graduation. The committee, along with the major advisor, will constitute the examining committee and will determine whether the format of the examination is oral or written or both. The advisory committee must receive final copies of the research project at least one week before conducting the examination. The major advisor will schedule the examination after consulting other members of the committee and will act as chairperson of the examination. Examination sessions of the research project are open to other members of the graduate faculty.

If the committee is not unanimous in its decision to approve the research and/or their grade recommendations, the Dean of Graduate and Continuing Studies shall have final authority to accept or reject the research project.

**Option II: Applied Research**

Option II places less emphasis upon formal research and correspondingly more emphasis upon activities related to the professional objectives of the student. Option II requires a three hour course in some aspect of research rather than the Special Research Project 990. The nature of the research course will be determined by the particular department involved. The student will be assigned a major advisor, who with the Dean of Graduate and Continuing Studies will formally approve the student's total degree program. Students under either option will be given a comprehensive examination; however, under Option II, there will be no advisory committee conducting an oral examination. The comprehensive examinations are administered by the department involved.

**Graduate Admission**

Persons with the proper credentials may be admitted to the Graduate School. Admission requires a bachelor's degree with a grade-point average of at least a 2.7 on a 4.0 scale. Applicants must complete a Graduate School Application and submit an official transcript from a regionally accredited institution or from an international institution with equal accreditation from the appropriate government agencies. The official transcript must be received by the Graduate School via
postal service directly from the institution. The transcript must provide a listing of the individual course titles, credit hours and assigned grade and, if completed at the time of application, the degree earned and date conferred.

Each academic area of study may also have additional requirements for admission. To determine if your program of interest has additional requirements, go to the Graduate School website (www.pittstate.edu/cgs) and click on Graduate Programs, then select the program of your choice.

Degree Seeking Students

Students applying for admission to a degree program must meet the standards set by the Graduate School, the academic department and the degree program. Students can be admitted conditionally or fully. Fully admitted students meet all of the application requirements and do not have any deficiencies. Conditionally admitted students are admitted on probation pending the fulfillment of deficiencies, grade point average, or incomplete application requirements. Students admitted as conditional must meet all requirements and be fully admitted by the completion of 12 graduate hours.

Non-Degree Seeking Students

Students who are not seeking to complete a graduate degree may request admission as a non-degree seeking student. Students admitted under this category must meet the standards set by the Graduate School. Non-degree seeking students who later want to become degree seeking may have academic work completed as non-degree seeking approved by their academic advisor to be applied towards their degree program.

International Students

International students must complete a Graduate International Application, submit official transcripts from previous colleges/universities attended and proof of Language Proficiency. To satisfy the proof of Language Proficiency, international students can either submit a TOEFL or IELTS score result or provide official documentation that the undergraduate degree was taught in the English language (for countries that do not require the TOEFL). Students can also choose to complete our Intensive English Program (IEP). Most graduate programs accept IEP to meet the language requirement. Students should review information at their department's website to verify that they accept IEP in place of a language test. The minimum test scores required for admission are different depending on the program the student is applying to. Students can check degree program TOEFL/IELTS requirements at the Graduate School website (www.pittstate.edu/cgs) under International Graduate Student Admission then click on the TOEFL or IELTS link.

Admission requirements and procedures for international students are subject to change according to the recognized needs of students and the university. All international students are required by the U.S. Citizenship and Immigration Services (USCIS) to be full-time students.

The USCIS requires graduate students to complete at least 9 semester hours each fall and spring semester to maintain their student status.

Senior Graduate Students

Seniors at Pittsburg State University may apply to take graduate work and receive graduate credit during their last semester of their undergraduate program. To qualify as a Senior Graduate, students must be admitted to the Graduate School, in good academic standing in their undergraduate work, and must have completed the undergraduate paperwork to graduate in the same semester as Senior Graduate status is approved. Senior Graduates cannot exceed nine hours of graduate work and 16 overall hours of credit. Students requesting to be considered as Senior Graduates must apply to the Dean of the Graduate School.

Candidacy and Graduation

Candidacy

Students must apply for candidacy to the degree they are seeking after taking twelve hours in their degree program. In order to be admitted to candidacy, students must be fully admitted and be in good academic standing. To establish their candidacy, students should
meet with their advisor and agree to a schedule of courses for the remainder of the degree program. Candidacy is completed by the student's advisor in the Graduate System in Gus and approved by the advisor, student, chair, and Graduate school. Should a candidacy need to be altered, changes can also be made in the Graduate System and will require new approvals. Meeting the requirements of candidacy is the responsibility of the graduate student. Students who do not apply for candidacy at the appropriate time in their program may be required to take additional courses. Candidacy must be completed and approved by the advisor, student, chair, and Graduate school before the student will be allowed to petition for graduation.

Additional Degree Requirements

In addition to required coursework, most degree programs also have other requirements. Examples of the additional degree requirements include: comprehensive exam, portfolio, oral presentations, theatre and music performances, oral exams, and the completion of research resulting in writing and defending a thesis. Some of these requirements are determined by the degree option the student chooses to complete. These options and additional requirements are determined at the time the student and the academic advisor complete the student's candidacy form.

Petition for Graduate Degree

Each candidate for a graduate degree must petition for graduation in the Graduate System in Gus and pay graduation fees. In order to be included in the commencement program, students must petition for graduation by the date listed as the final day to apply for degrees on the university calendar each semester. All students are required to petition and pay graduation fees even if the student is not participating in graduation ceremonies.

Awarding of Degrees

Graduate degrees are dated and awarded at the end of the fall, spring, and summer terms. Students will not be approved for graduation until all coursework has been completed and all additional degree requirements have been fulfilled. Commencement ceremonies are held in May for students receiving degrees at the end of the spring and summer semesters and in December for students graduating at the end of the fall semester.

Academic Honors

Graduate students who have earned a cumulative grade point average of 4.00 in their degree program at the time of graduation will graduate with the designation Graduate Dean Academic Honors. These graduates are distinguished by wearing a double gold cord at the commencement ceremony. The Graduate Dean Academic Honors designation will appear on the student's transcript.

Graduate Student Involvement

Graduate Student Advisory Council (GSAC)

The mission of the GSAC is threefold: 1) To facilitate communication among graduate students, faculty, and administrators. This includes such items as graduate programs, graduate student services, and other relevant issues related to the graduate population. 2) To promote professional development and interaction among the graduate population through social events, academic events, and specialized workshops. 3) To act as a source of information and guidance for current and incoming graduate students. Any graduate student may and is encouraged to attend the GSAC meetings. The GSAC shall include one or two graduate student representatives from each graduate department at Pittsburg State University (dependent on number of programs and students). These representatives will be the voice of their respective departments at the meeting and shall be appointed or elected by each department before the first meeting in September. Any concerns regarding the departments and the programs they offer will be brought forth by the representatives and those individuals will be responsible for reporting information back to the department. Each representative shall have one vote at Council meetings. No member may hold more than one voting position in the Council at any given time. Additional information regarding the GSAC may be found at the Graduate School web site (www.pittstate.edu/cgs) under For
Students, then Graduate Student Advisory Council (GSAC).

**Graduate Assistantships**

Pittsburg State University offers graduate assistantships in most academic departments and some administrative departments. Assistantships are available as teaching, research and administrative. Students interested in applying for an assistantship must contact each department to complete an application. Every student hired as a teaching assistant will be required to have a completed Spoken English Assessment form. All International students hired as a teaching assistant will also be required to meet our language proficiency requirement by earning a specific score on the Speaking portion of the TOEFL. Students in graduate assistant positions are required to enroll in at least six hours of required graduate degree course work each semester of their appointment.

**Academic Policy**

**General Information**

**Academic Advising**

Non-degree seeking students are assigned to the Dean of Graduate and Continuing Studies for advisement. Students admitted to a degree program are assigned a departmental advisor at the time of admission to the program. It is essential that students meet early with their advisor to plan their program of study.

**Change of Major**

Students who would like to change their major must apply for admission to the new major by completing a new graduate school application. Courses previously taken will be evaluated as to appropriateness in the new program.

**Thesis Requirements & Protection of Human Research**

**Thesis Requirements**

Students choosing to pursue Option I must present and defend a satisfactory thesis according to the Requirements and Guidelines for the Preparation of a Master's Thesis manual, which may be found at the Graduate School website ([www.pittstate.edu/cgs](http://www.pittstate.edu/cgs)) under For Students, Thesis Information. Students should consult this manual for important information throughout the thesis process, as well as the Thesis Manual (at the same link above) for the technical aspects of writing their thesis. Important dates for submission throughout the thesis process can also be found at the above link. The forms required to complete a thesis are available online through the Graduate System in Gus. The instructions for completing these forms are found in the above mentioned Thesis Requirements and Guidelines web site.

**Protection of Human Research**

Federal policy requires that all research involving human subjects be approved by an Institutional Review Board to ensure that the rights and welfare of human subjects are properly protected.

Faculty and students conducting research involving human subject participants must have approval by the department and Pittsburg State University's Committee for the Protection of Human Research. Information regarding the types of research that will require approval can be found at the Graduate School website ([www.pittstate.edu/cgs](http://www.pittstate.edu/cgs)) under Research and Grants, then Research Involving Human Subjects. Application and approval must be completed prior to any research being conducted. Students completing a thesis must also seek approval from the Committee. Information and application materials can also be found at the above link.

**Course Expectations**

**Enrollment in Courses**

Courses numbered 700 to 899 are master's level graduate courses. Courses numbered 900 or above are open only to students pursuing a Specialist in Education degree. Courses at 500-, 600- or 700-level may not be applied toward a graduate degree unless graduate fees have been paid.

Courses numbered 500 to 699 may be used on a master's candidacy with permission from both the student's academic advisor and the Dean of Graduate and Continuing Studies. A department may require
more of these courses in addition to the degree requirements, but no more than six hours may be used toward the degree. No courses below 500 may apply to a master's degree and no 500 to 699 courses may apply to a Specialist in Education degree.

**Definition of Hybrid Course**

Hybrid Courses provide a minimum of 50% of the instruction (course material, discussion, evaluation) on-line through the learning management system. This does not include courses that are by appointment, independent study, or do not provide a learning experience on-line. These courses must have established classroom (face-to-face) meeting dates listed in the Schedule of Classes at the time the course is listed. Courses will have the media fee charged to the student.

**Definition of On-Line Course**

On-Line Courses provide 100% of the instruction (course material, discussion, evaluation) on-line through the learning management system and do not require attendance on campus. This does not include courses that are by appointment, independent study, or do not provide a learning experience on-line. These courses will have the media fee charged to the student.

**Typical Graduate Academic Loads / Course Overload**

The typical load for full-time graduate students is twelve credit hours. A student who wishes to enroll in more than sixteen hours must receive special permission from the chair of their department. Students in graduate assistant positions are required to enroll in at least six required graduate credit hours each semester of their appointment.

**Credit Used for a Second Emphasis**

Students can earn a second emphasis within a major with approval from the academic department and by meeting all admission and conditional requirements. Students must complete the second emphasis' requirements as legislated and listed in the University Catalog. The second emphasis will be noted on the student's transcript if it is completed prior to graduating with the first emphasis.

**Credit Used for a Second Graduate Degree**

Students seeking a second graduate degree may be allowed to use a maximum of nine credit hours from a completed graduate degree for courses required in the second degree. If courses from a previous degree are being used to substitute for required courses, the department can assign other courses to be completed or can reduce the number of credit hours required for the degree.

**Credit by Transfer**

A maximum of nine hours of graduate credit may be transferred from another accredited graduate school and applied to a program of study with the approval of the student's department. Only work graded B or higher may be transferred. A course in which a grade of Pass was earned cannot be used as a transfer course. No courses used for an undergraduate degree at Pittsburg State University or from another institution may be transferred to Pittsburg State University to count towards a master's degree. Pittsburg State University does not accept graduate level credit for life/work experience as transfer graduate credit. For the Specialist in Education degree programs, course work for transfer or waiver must be from an institution offering post-master's degree study.

**Validation of Previous Work**

Students requesting to use Pittsburg State University course work completed more than six years from the time of the student's last semester before graduating must submit the course for review to their academic department. Departments may choose to accept the course; require validation of the course by interview, test, or other means of evaluation; require the student to re-enroll and repeat the course; or deny the course.

**Grade Expectations**

**Course Grade Requirements**

Degree-seeking graduate students are required to maintain a grade point average of 3.0. A student may earn a maximum of six hours of C grade work. Grades of D or F are considered failing grades and do not count toward a degree. The Letter P is used to indicate
participation in a course, in which a passing grade was assigned. With the approval of the academic advisor, a student may use up to six hours of course work with a grade of P for their candidacy. Students are expected to make academic progress toward the completion of the required coursework. A student who has earned grades of Incomplete might not be allowed to enroll in future courses until previous course work has been completed.

**Incomplete / In-Progress Work**

Incomplete grade is to be utilized in rare instances when a student is unable to complete a course due to circumstances beyond his/her control. The student must have successfully completed a majority of the course work to be eligible. The instructor must state clearly in writing what is needed to successfully complete the course. This information will be provided via GUS to both the student and the department chairperson. The plan cannot require the student to repeat the course as an option for removing an “IN” grade. Instructor must provide the grade the student would earn if no additional work is completed by entering a grade of “IB” “IC” “ID” “IF”, calculating the missing work as zero grades. The second letter supplies the default grade that will replace the “IN” grade at the end of one full subsequent fall or spring semester if no additional work is completed. If the student opts to graduate prior to the allowed deadline for removal of an incomplete, the default grade will be recorded, and the student may not complete the work to achieve a higher final grade after graduation. A grade of In Progress “IP” may be given when a student is enrolled in a course that requires the student to engage in projects that extend past the end of the semester. Such courses must be legislated and approved by the Graduate Council for use of the “IP” grade. As with incomplete grades, an In Progress not removed within one year shall be regarded as a failure and the “IP” grade will be changed to an “F” and included in the computation of the student’s GPA. Courses that do not automatically change to an F after a year will, if still Incomplete or In Progress after two years of no enrollment in graduate courses, be regarded as permanently Incomplete and will receive the designation “IX”. Once a grade of “IX” has been posted for a course, a student wishing to earn credit for that course will be required to re-enroll in it and to pay the required tuition and fees.

**Academic Standing**

A student who has not maintained a 3.0 grade point average, has earned six hours of C grade work, and/or has failed a course with a grade of D or F can be placed on Academic Alert status. A student who has been placed on Academic Alert can be required to enroll in fewer hours for the following semesters, be required to repeat courses, not be eligible for an assistantship and/or be dismissed from the Graduate School. Students on Academic Alert Status will be monitored each semester to confirm that they are improving their academic standing.

A student who has not maintained a 3.0 grade point average, earned more than six hours of C grade work, and/or has failed a course with a grade of D or F can be dismissed from the Graduate School by the Graduate School Dean. The Graduate School Dean, after consultation with the student's academic advisor, may terminate a student's graduate status because of unsatisfactory academic performance. Students who have been Academically Dismissed can not be re-admitted to a graduate degree program for a period of two years.

**Repeated Courses**

Graduate courses in which a C or lower grade has been earned may be repeated for the purpose of raising the grade. A total of six hours may be repeated with no course repeated more than once. When a repeated course is allowed, the grade earned on the second attempt will be used in computing the GPA. The original grade will remain on the transcript, but will be marked as repeated.
College of Arts and Sciences
Dean: Karl R. Kunkel, Ph.D.
Room: 311 Grubbs Hall
Telephone: 620-235-4685
Fax: 620-235-4686
Email: artsc@pittstate.edu
website: http://www.pittstate.edu/cas

Mission

Through participation in the University's General Education Program, as well as through our more than fifty undergraduate major, minor, and graduate programs in thirteen departments, the College of Arts and Sciences provides students with the capacity to transfer learning to various settings throughout life. We seek to prepare generally educated students for global citizenship in the Twenty-First Century so they can lead meaningful, purposeful lives, contribute to their communities, and fully participate in the democracy. We further facilitate our majors, minors, and graduate students for developing expertise in specific disciplines and preparation for careers. Through extensive outreach programs beyond the classroom, we provide the campus and larger community with opportunities for cultural, aesthetic, and scientific enrichment.

The College of Arts and Sciences is central to the academic mission of the University. We provide undergraduate major programs in 28 areas including 78 options and emphases, eleven graduate programs, as well as twelve academic minors including 22 options and areas. We also partner with College of Education to offer twelve Bachelor of Science in Education degree programs. The College of Arts and Sciences touches every student on campus with over 90% of the courses in the General Education Program. We further support undergraduate programs in all four colleges through various service courses. The College provides a plethora of learning opportunities leading to degree completion, career fulfillment, and various enrichment experiences, including those aimed at the university and local communities.

The College of Arts and Sciences offers opportunities for career preparation in a number of areas of pre-professional and professional training as well as applied sciences. In addition, many students major in traditional liberal arts fields because they realize that these programs prepare them well to pursue successful careers in areas as diverse as teaching, law, management, sales, writing, and many others.

The combined academic programs in the College are the largest at Pittsburg State, enrolling more than 52% of all students. The faculty are dedicated teachers as well as active artists and scholars publishing books and articles, delivering papers for presentation at professional meetings, holding offices in state and national professional organizations, exhibiting or performing their art, consulting with various agencies and organizations, and in other ways contributing to the quest for knowledge and excellence. The College’s thirteen departments are housed in ten buildings across the campus: The Family and Consumer Sciences Building, Grubbs Hall, Heckert-Wells Hall, McCray Hall, McPherson Hall, Porter Hall, Russ Hall, the Student Recreation Center, Whitesitt Hall, and Yates Hall.

Beyond academic programs, the College of Arts and Sciences provides many facilities, services, and activities for campus and community enrichment: the Monaghan Nature Reserve, the Fisk Organ, the L. Russell Kelce Planetarium, the Harry Krug and University Art Galleries, the Writing Center, The Midwest Quarterly, the Early Childhood Pre-School Lab, Nursing’s Health Simulation Center, the Solo & Chamber Music Series, PSU Theatre’s Main Stage Season, the Distinguished Visiting Writers Series, ROTC competitions and summer training, Nature Reach, and numerous others.

Departments
Art
Biology
Chemistry
Communication
English
Family and Consumer Sciences
History, Philosophy, and Social Sciences
Mathematics
Military Science
Modern Languages and Literatures
Music
Nursing
Physics
Art

Chairperson: Rhona E. Shand
Professor(s): Marjorie K. Schick*, **
Associate Professor(s): S. Portico Bowmen*, Malcolm E. Kucharski*, James M. Oliver, Jr.*, Rhona E. Shand*
Assistant Professor(s): Li-Lin Tseng*
Instructors: Sung Hee Choi*

*Graduate Faculty
**University Professor

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Undergraduate
Bachelor of Fine Arts Degree with a Major in Art
Bachelor of Fine Arts Degree with a Major in Art Education
Minor in Art (Non-Teacher Certification Minor)
Minor in Commercial Art

MISSION STATEMENT

• to provide an exceptionally high quality education for those students committed to learning in the visual arts by providing a relevant, integrated and comprehensive curriculum that expands their artistic, intellectual and professional abilities through developing knowledge and skills in art (history, theory, pedagogy, and studio),
• to instill a greater understanding and visual literacy of the arts and humanities within the Pittsburg State University general student body, PK-12 school systems and the broader community by creating opportunities to engage in the world of visual arts through curricular, interdisciplinary and campus-based programs, along with directed outreach to the four state region,
• to provide the Pittsburg State University campus and community with exhibits of contemporary art and lecture presentations in order to further the artistic understanding of all constituents in the academic setting,
• to contribute significantly to advancement of the artistic disciplines by having active professional faculty, who are established at the local, regional, state, national and international levels.

General Information

The Department of Art at Pittsburg State University, provides students who have an interest in art, a strong foundation in creative critical thinking and design, that prepares them in a multitude of professional careers in studio, applied arts and art education. Example opportunities in visual art fields include art direction; ceramic studios; character design; concept art; curatorial and museum work; jewelry design; photography; sequential art; studio painter; 3D digital modeling (for animation industry); and advertising, editorial and publishing illustration. The BFA also is considered fundamental preparation for graduate degrees in the studio arts and art history.

Art teaching remains an important career choice for many art students. Individuals planning to teach art in the public schools (K-12) should select the Bachelor of Fine Arts Degree with an emphasis in art education.

Special Department Requirements

All Department of Art undergraduate degree programs require that a cumulative GPA of 3.00 be earned in all art courses; grades of "B" or better are required in all upper level art courses.

All BFA students with an emphasis in a studio art area are required to take 10 credit hours of professional art practices courses. This includes Art 412 Senior Art Seminar and Art 490 Senior Exhibit. These courses and resulting exhibition is only for senior art majors.

Departmental Minors

To minor in art, students must complete 21 credit hours of art. Prospective students should request advice from the Department Chair and Faculty concerning course selections.
Art minors do not meet certification requirements to teach art in the state of Kansas. Those wanting a single course to expand their understanding of the concepts and applications of art should choose ART 311 Art Education, for three credit hours. This course is not sufficient for the art certification at either the elementary or secondary level.

**Bachelor of Fine Arts Degree with a Major in Art**

This degree is designed for those interested in professional preparation in visual art. It is a foundation for careers in fine art, and commercial art. The basic art studio and art history experiences focus on creative visual thinking, art concepts, technical skills that are essential for entry into art related fields.

Course content and instructional strategies are organized such that aesthetic sensitivity is fostered across a variety of disciplinary platforms to allow students to translate concepts into tangible images that communicate in a continually evolving world and find purpose in a wide range of professional outlets.

**Bachelor of Fine Arts (2D Studio Art)**

**Required Art (49 hours)**

ART 100: Art Foundations I: 2D Visual Thinking ............3  
ART 150: Art Practices I: Health, Safety and Sustainability .............................................. 1  
ART 178: Introduction to the Visual Arts .........................3  
ART 200: Art Foundations II: 3D Visual Thinking ............3  
ART 220: Art of Photography I ..................................3  
ART 233: Drawing I .............................................3  
ART 236: Drawing II .............................................3  
ART 250: Art Foundations III: Color Theory and Application .............................................. 3  
ART 288: Western Art History I ..................................3  
ART 289: Western Art History II ..................................3  
ART 325: Art Practices II: Presentation of Artist Works .........................................................1  
ART 350: Art Practices III: Studio Critique I  
(Sophomore Level) ..................................................1  
ART 412: Senior Art Seminar ....................................3  
ART 433: Life Drawing ............................................3  

ART 434: Life Drawing II ...........................................3  
ART 450: Art Practices IV: Portfolio Creation ..................1  
ART 490: Senior Exhibit ...........................................1  
ART 550: Art Practices V: Studio Critique II (Junior Level) .............................................1  
ART 650: Art Practices VI: Studio Critique III  
(Senior Level) .........................................................1  
ART 688: History of Modern Art ................................3  
ART 689: Contemporary Issues in Art .........................3  

**Focus courses may be selected from the following groups (18 hours)**

**Group 1- Painting**

ART 277: Painting I ..............................................3  
ART 377: Painting II ..............................................3  
ART 477: Painting III .............................................3  
ART 478: Painting IV .............................................3  
ART 577: Painting V .............................................3  
ART 578: Painting VI .............................................3  

**Group 2- 2D Studio Art**

- ART 200 Level 2D Studio Course (3 hours)  
- ART 300 Level 2D Studio Course (3 hours)  
- ART 300 or Above Level 2D Studio Course (12 hours)

**Other Required (18 hours)**

GIT 240: Page Layout Software ................................3  
GIT 241: Image Composition Software ......................3  

- Lower level outside art studio (6 hours)  
- Upper level outside art studio (6 hours)

**Required Art Courses (85 hours)**

**General Education Courses* (44-51 hours)**

*General Education Requirements for All Baccalaureate Degrees. Major course work satisfies three hours of the fine arts area of the general education requirement.

Total hours for Bachelor of Fine Arts Degree with a Major in Art (129-136 hours)
Bachelor of Fine Arts (3D Studio Art)

Required Art (49 hours)
ART 100: Art Foundations I: 2D Visual Thinking ..........................3
ART 150: Art Practices I: Health, Safety and Sustainability ..................1
ART 178: Introduction to the Visual Arts ..................................3
ART 200: Art Foundations II: 3D Visual Thinking ..................3
ART 220: Art of Photography I ........................................3
ART 233: Drawing I ......................................................3
ART 236: Drawing II ......................................................3
ART 250: Art Foundations III: Color Theory and Application ..................3
ART 288: Western Art History I ..................................3
ART 289: Western Art History II ..................................3
ART 325: Art Practices II: Presentation of Artist Works .................1
ART 350: Art Practices III: Studio Critique I (Sophomore Level) ..........1
ART 412: Senior Art Seminar ......................................3
ART 433: Life Drawing ..................................................3
ART 434: Life Drawing II ..................................................3
ART 450: Art Practices IV: Portfolio Creation ............................1
ART 490: Senior Exhibit ...............................................1
ART 550: Art Practices V: Studio Critique II (Junior Level) ...............1
ART 650: Art Practices VI: Studio Critique III (Senior Level) ..............1
ART 688: History of Modern Art ......................................3
ART 689: Contemporary Issues in Art ..................................3

Focus courses may be selected from the following groups (18 hours)

Group 1- Ceramics
ART 244: Ceramics I ....................................................3
ART 344: Ceramics II ....................................................3
ART 444: Ceramics III ....................................................3
ART 445: Ceramics IV ....................................................3
ART 544: Ceramics V ....................................................3
ART 545: Ceramics VI ....................................................3

Group 2- Jewelry
ART 222: Jewelry Design I ........................................3
ART 322: Jewelry Design II ..........................................3
ART 422: Jewelry Design III ..........................................3
ART 423: Jewelry Design IV ..........................................3
ART 522: Jewelry Design V ..........................................3
ART 523: Jewelry Design VI ..........................................3

Group 3- 3D Studio Art
- ART 200 Level 3D Studio Course (3 hours)
- ART 300 Level 3D Studio Course (3 hours)
- ART 300 or Above Level 3D Studio Course (12 hours)

Other Required (18 hours)
GIT 240: Page Layout Software ........................................3
GIT 241: Image Composition Software ................................3
- Lower level outside art studio (6 hours)
- Upper level outside art studio (6 hours)

Required Art Courses (85 hours)

General Education Courses* (44-51 hours)
*General Education Requirements for All Baccalaureate Degrees. Major course work satisfies three hours of the fine arts area of the general education requirement.

Total hours for Bachelor of Fine Arts Degree with a Major in Art (129-136 hours)

Bachelor of Fine Arts (Commercial Art)

Required Art (52 hours)
ART 100: Art Foundations I: 2D Visual Thinking ..................3
ART 150: Art Practices I: Health, Safety and Sustainability ..................1
ART 178: Introduction to the Visual Arts ..................3
ART 200: Art Foundations II: 3D Visual Thinking ...............3
ART 220: Art of Photography I ........................................3
ART 233: Drawing I ......................................................3
ART 236: Drawing II ......................................................3
ART 250: Art Foundations III: Color Theory and Application ............................................................. 3
ART 277: Painting I ................................................................. 3
or ART 320: Art of Photography II ........................................... 3
ART 288: Western Art History I ................................................ 3
ART 289: Western Art History II ............................................. 3
ART 325: Art Practices II: Presentation of Artist Works ................................................................. 1
ART 350: Art Practices III: Studio Critique I (Sophomore Level) .................................................... 1
ART 412: Senior Art Seminar .................................................... 3
ART 433: Life Drawing ............................................................. 3
ART 434: Life Drawing II ......................................................... 3
or ART 333: Drawing III .......................................................... 3
ART 450: Art Practices IV: Portfolio Creation ............................................. 1
ART 490: Senior Exhibit .......................................................... 1
ART 550: Art Practices V: Studio Critique II (Junior Level) ............................................................. 1
ART 650: Art Practices VI: Studio Critique III (Senior Level) ......................................................... 1
ART 688: History of Modern Art ................................................ 3
ART 689: Contemporary Issues in Art ......................................... 3

Group 1- Commercial Art (18 hours)
ART 205: Commercial Art I ..................................................... 3
ART 305: Commercial Art II .................................................... 3
ART 405: Electronic Art Studio I .............................................. 3
ART 406: Electronic Art Studio II ............................................. 3
ART 505: Commercial Art III .................................................. 3
ART 605: Commercial Art IV .................................................. 3

Other Required (15 hours)
GIT 240: Page Layout Software ............................................... 3
GIT 241: Image Composition Software ..................................... 3
- Lower level outside art studio (3 hours)
- Upper level outside art studio or GIT courses (6 hours)

Required Art Courses (85 hours)

General Education Courses* (44-51 hours)

Total hours for Bachelor of Fine Arts Degree with a Major in Art (129-136 hours)

Bachelor of Fine Arts Degree with a Major in Art Education

This emphasis is designed for those interested in professional preparation for teaching art. The program meets the State of Kansas art teacher certification requirements for elementary and secondary levels (K-12) of public instruction. Basic art studio, history, and pedagogy courses make up one of the three components of the degree. The other two components consist of a required group of general education courses and a required group of professional education courses.

Required Art Courses for BFA- Art Education (63 hours)

ART 100: Art Foundations I: 2D Visual Thinking .................. 3
ART 178: Introduction to the Visual Arts ....................... 3
ART 200: Art Foundations II: 3D Visual Thinking ............ 3
ART 217: Crafts I ............................................................... 3
ART 220: Art of Photography I ........................................... 3
ART 222: Jewelry Design I ................................................... 3
ART 233: Drawing I .............................................................. 3
ART 244: Ceramics I ............................................................. 3
ART 250: Art Foundations III: Color Theory and Application ......................................................... 3
ART 266: Sculpture I ............................................................... 3
ART 277: Painting I ................................................................. 3
ART 288: Western Art History I ............................................. 3
ART 289: Western Art History II ........................................... 3
ART 379: Art Education: Elementary .................................. 3
ART 441: Art Education: Theory and Practice ................. 3
ART 479: Art Education: Secondary ................................... 3
ART 688: History of Modern Art ........................................... 3
ART 689: Contemporary Issues in Art ................................... 3

Two Studio Electives selected from (6 hours)

ART 155: Printmaking and Paper Arts ......................... 3
ART 236: Drawing II .............................................................. 3
ART 320: Art of Photography II .......................................... 3
ART 377: Painting II .............................................................. 3
Upper Level Elective selected from (3 hours)
ART 322: Jewelry Design II ........................................... 3
ART 344: Ceramics II ....................................................... 3

Professional Education Requirements* (32 hours)
Students must file an application for admission to teacher education before they will receive credit for pre-professional laboratory experiences in the BSED program. See appropriate section of this catalog for teacher education requirements and procedures. Clarification of requirements for teacher certification should be sought from the Director of Teacher Education, College of Education.

PSYCH 263: Developmental Psychology .......................... 3
PSYCH 357: Educational Psychology ................................. 3
EDUC 261: Explorations in Education ................................. 3
SPED 510: Overview of Special Education .......................... 3
EDUC 520: Methods and Materials for Academic Literacy ................................................................. 3

Professional Semester
EDUC 458: Methods and Curriculum ............................. 3
EDUC 462: Secondary and Middle Level Education ................................................................. 2
EDUC 464: Foundations of Measurement and Evaluation ........................................................................ 2
EDUC 475: Supervised Teaching in the Elementary School ................................................................... 3
EDUC 482: Supervised Teaching in the Secondary School .................................................................. 5
ART 579: Supervised Student Teaching and Follow-Up of Teachers ............................................... 2

* See Admission to Professional Semester for professional education grade point requirements for admission to the professional semester.

Must be admitted to Teacher Education to enroll in PSYCH 357 and EDUC 520.

Students must request dual certification assignments (elementary and secondary) when signing up for professional semester and taking EDUC 475 and EDUC 482.

General Education Requirements* (44-51 hours)
* General Education Requirements for Students Preparing to Teach Secondary School. Also see scholastic achievement requirements for admission to teacher education for secondary teaching majors

Scholastic Achievement in Common Core.

Professional Education Requirements (32 hours)

Required Art Courses (73 hours)

Total hours for Bachelor of Fine Arts- Art Education (149-156 hours)

Minor in Art (Non-Teacher Certification Minor)
Those seeking aesthetic or art historical knowledge, visual thinking and/or technical art skills to complement or expand their major courses of study should choose a minor in art.

Required Courses (21 hours)
ART 100: Art Foundations I: 2D Visual Thinking .......... 3
ART 200: Art Foundations II: 3D Visual Thinking .......... 3
ART 233: Drawing I ......................................................... 3
ART 288: Western Art History I .................................... 3
ART 289: Western Art History II ................................ 3

• Electives in upper level studio courses (6 hours)

Minor in Commercial Art
Programs such as graphic and imaging technology, communication, family and consumer science, technical education, and public relations will find a commercial art a useful compliment.

Commercial Art (21 hours)
ART 100: Art Foundations I: 2D Visual Thinking .......... 3
ART 205: Commercial Art I ........................................... 3
ART 233: Drawing I .........................................................3
ART 236: Drawing II ........................................................3
ART 250: Art Foundations III: Color Theory and Application ..........................................................3
ART 689: Contemporary Issues in Art .........................3

One Elective selected from the following
ART 220: Art of Photography I ........................................3
ART 305: Commercial Art II ............................................3
ART 320: Art of Photography II .......................................3
ART 420: Art of Photography III .....................................3
ART 433: Life Drawing .....................................................3
ART 688: History of Modern Art .....................................3
Biology

Chairperson: Dixie L. Smith
Associate Professor(s): Peter A. Chung*, David M. Gordon*, Dixie L. Smith*
Assistant Professor(s): Phillip Harries*, Hermann Nonnenmacher*, Mandy M. Peak*, Xiaolu Wu*
Instructors: Neal Schmidt*

*Graduate Faculty
**University Professor

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Undergraduate

Bachelor of Arts Degree with a Major in Biology
Bachelor of Science Degree with a Major in Biology
Bachelor of Science Degree with a Major in Biology: Pre-Medical and Pre-Dental Emphasis
Bachelor of Science Degree with a Major in Biology: Pre-Physical Therapy Emphasis
Bachelor of Science Degree with a Major in Biology: Cellular and Molecular Biology Emphasis
Bachelor of Science Degree with a Major in Biology: Field Biology and Environment Emphasis
Bachelor of Science Degree with a Major in Biology: Ecology and Organismic Biology Emphasis
Bachelor of Science Degree with a Major in Biology: Plant Taxonomy
Bachelor of Science Degree with a Major in Biology: Plant Physiology/Plant Molecular Biology
Bachelor of Science in Education Degree with a Major in Biology
Bachelor of Science in Medical Technology
Minor in Biology
Minor in General Science
Minor in Natural History
Minor in Cell Biology

Graduate

Master of Science Degree with a Major in Biology

Students may select study from a variety of emphasis areas in the following general program areas: health and laboratory sciences, field biology and environment, plant sciences, and biology education.

Aside from these program areas, you can graduate under the general biology curriculum and custom select courses to meet your interests. Your choices can lead to a variety of possible biology careers or graduate training based on your interests.

Bachelor of Arts Degree with a Major in Biology

A student completing a minimum of 10 hours of one foreign language is eligible for the Bachelor of Arts (Biology Major) degree.

Bachelor of Science Degree with a Major in Biology

General Requirements for the Bachelor of Science Degree Applicable to Biology

General Education courses must meet the requirements approved by the General Education Committee or approved substitutes. Check individual curricula and consult your advisor for acceptable substitutes. The eight hours of natural science requirements are satisfied by course requirements in the biology curricula (BIOI 211 Principles of Biology I, CHEM 215/216 General Chemistry I/Laboratory).

A total of 45 hours, which includes a 20-hour minor, must be taken outside of the department. Although other minors may be acceptable (check with your advisor), a chemistry or physical science minor is recommended.

At least 20 of the 45 university required upper division hours must be in biology.

Students with strong backgrounds in high school mathematics are urged to substitute MATH 150 Calculus I for MATH 113 College Algebra.
General Education Electives (26-32 hours)

- Sciences** (0 hours)
- Social Studies (3 hours)
- Political Studies (3 hours)
- Producing and Consuming (5-6 hours)
- Fine Arts and Aesthetic Studies (2-3 hours)
- Cultural Studies (3-5 hours)
- Health and Well-Being (4-6 hours)
- Human Heritage (6 hours)

*Courses must be taken from the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

**General education sciences are satisfied by course requirements in biology (BIOL 211) and chemistry (CHEM 215/216).

### Biology Core (40 hours)

- BIOL 211: Principles of Biology I ........................................... 4
- BIOL 212: Principles of Biology II ........................................ 4
- BIOL 311: Cell Biology ......................................................... 3
- BIOL 322: Genetics ............................................................... 3
- and BIOL 323: Genetics Laboratory .................................. 2
- BIOL 330: Principles of Ecology .......................................... 3
- BIOL 371: General Microbiology ......................................... 3
- and BIOL 372: General Microbiology Laboratory ............ 2

### Upper Division Physiology (choose one)

- BIOL 656: Human Physiology .............................................. 3
- and BIOL 657: Human Physiology Laboratory .................. 2
- BIOL 675: Microbial Physiology .......................................... 3
- and BIOL 676: Microbial Physiology Laboratory ............ 2

- BIOL 685: Plant Physiology .................................................. 3
- and BIOL 686: Plant Physiology Laboratory ..................... 2
- BIOL 699: Senior Seminar and Assessment ..................... 1

- Biology electives (10 hours)

### Required from other departments (10 hours)

- CHEM 215: General Chemistry I ........................................... 3
- and CHEM 216: General Chemistry I Laboratory ........... 2
- CHEM 320: Introductory Organic Chemistry .................. 3
- or CHEM 325: Organic Chemistry I ................................. 3
- and CHEM 326: Organic Chemistry Laboratory ............ 2

- Minor (10 hours if chemistry or physical science is chosen) (10-20 hours)
- Other Electives (10-26 hours)

TOTAL hours for Bachelor of Science Degree with a Major in Biology (124 hours)

### Bachelor of Science Degree with a Major in Biology: Pre-Medical and Pre-Dental Emphasis

**Health and Laboratory Sciences**

Pursue interests in pre-medicine (prepare for entry into medical, osteopathic, and dental schools or graduate medical research programs), pre-physical therapy (prepare for entry into further specialization in physical and occupational therapy), cell and molecular biology (prepare for graduate school or entry-level employment in biotechnology), medical technology (prepare for employment in hospitals or private labs). Notes: The department also offers pre-professional work in optometry and veterinary medicine. Consult the department chairperson for details on these programs.

General Education Requirements* (38-44 hours)

Basic Skills (12 hours)

General Education Electives (26-32 hours)

- Sciences** (0 hours)
Social Studies (3 hours)
Political Studies (3 hours)
Producing and Consuming (5-6 hours)
Fine Arts and Aesthetic Studies (2-3 hours)
Cultural Studies (3-5 hours)
Health and Well-Being (4-6 hours)
Human Heritage (6 hours)

*Courses must be taken from the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

**General education sciences are satisfied by course requirements in biology (BIOL 211) and chemistry (CHEM 215/216).

### Biology Core (30 hours)

BIOL 211: Principles of Biology I ........................................... 4
BIOL 212: Principles of Biology II ........................................... 4
BIOL 311: Cell Biology ......................................................... 3
BIOL 322: Genetics .............................................................. 3
and BIOL 323: Genetics Laboratory ..................................... 2
BIOL 330: Principles of Ecology .............................................. 3
BIOL 371: General Microbiology .......................................... 3
and BIOL 372: General Microbiology Laboratory .............. 2
BIOL 656: Human Physiology ............................................. 3
and BIOL 657: Human Physiology Laboratory ................ 2
BIOL 699: Senior Seminar and Assessment ....................... 1

### Other Required Biology (3 hours)

BIOL 105: Pre-Health Orientation I ................................... 1
BIOL 205: Pre-Health Orientation II ................................... 1
BIOL 305: Pre-Health Orientation III ................................. 1

### Biology Electives (suggested courses follow) (7 hours)

BIOL 490: Honors Research in Biology ................................. 1-3
BIOL 550: Advanced Cellular and Molecular Biology ................. 3
BIOL 570: Pathogenic Bacteriology .................................. 3
and BIOL 571: Pathogenic Bacteriology Laboratory .............. 2

BIOL 572: General Virology ........................................... 3
BIOL 660: Human Anatomy and Dissection ........................ 5
BIOL 671: Immunology ................................................... 3
and BIOL 672: Immunology Laboratory .............................. 2

- Other electives approved by advisor

### Minor (10 hours if Chemistry or Physical Science chosen) (10-20 hours)

### Required from other departments (30 hours)

CHEM 215: General Chemistry I ......................................... 3
and CHEM 216: General Chemistry I Laboratory ........... 2
CHEM 225: General Chemistry II ...................................... 3
and CHEM 226: General Chemistry II Laboratory ........... 2
CHEM 325: Organic Chemistry I .......................................... 3
and CHEM 326: Organic Chemistry Laboratory ............... 2
CHEM 335: Organic Chemistry II ......................................... 3
and CHEM 336: Organic Chemistry II Laboratory ........... 2

### Choose from (10 hours)

Choose from College Physics I and II or Engineering Physics I and II

PHYS 100: College Physics I ............................................. 4
and PHYS 130: Elementary Physics Laboratory I .......... 1
PHYS 101: College Physics II ........................................... 4
and PHYS 131: College Physics Laboratory II ............... 1
PHYS 104: Engineering Physics I ...................................... 4
and PHYS 130: Elementary Physics Laboratory I .......... 1
PHYS 105: Engineering Physics II .................................... 4
and PHYS 132: Engineering Physics Laboratory II ....... 1
or PHYS 131: College Physics Laboratory II ............... 1

### Other Electives (0-6 hours)

Total hours for Bachelor of Science Degree with a Major in Biology: Pre-Medical and Pre-Dental Emphasis (124 hours)
Bachelor of Science Degree with a Major in Biology: Pre-Physical Therapy Emphasis

Health and Laboratory Sciences

Pursue interests in pre-medicine (prepare for entry into medical, osteopathic, and dental schools or graduate medical research programs), pre-physical therapy (prepare for entry into further specialization in physical and occupational therapy), cell and molecular biology (prepare for graduate school or entry-level employment in biotechnology), medical technology (prepare for employment in hospitals or private labs). Notes: The department also offers pre-professional work in optometry and veterinary medicine. Consult the department chairperson for details on these programs.

General Education Requirements* (38-44 hours)

Basic Skills** (12 hours)

General Education Electives (26-32 hours)

Sciences*** (0 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming**** (5-6 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)

Human Heritage# (6 hours)

*Courses must be taken from the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

**Use MATH 143 Elementary Statistics.

***General education sciences are satisfied by course requirements in biology (BIOL 211) and chemistry (CHEM 215/216).

****Use CIS 130 Computer Information Systems.

#Use PHIL 105 Ethics.

Biology Core (30 hours)

BIOL 211: Principles of Biology I ........................................ 4
BIOL 212: Principles of Biology II ........................................ 4
BIOL 311: Cell Biology ..................................................... 3
BIOL 322: Genetics ......................................................... 3
and BIOL 323: Genetics Laboratory .................................... 2
BIOL 330: Principles of Ecology ......................................... 3
BIOL 371: General Microbiology ....................................... 3
and BIOL 372: General Microbiology Laboratory .............. 2
BIOL 656: Human Physiology ......................................... 3
and BIOL 657: Human Physiology Laboratory ................. 2
BIOL 699: Senior Seminar and Assessment .................... 1

Other Required Biology (10 hours)

BIOL 660: Human Anatomy and Dissection ..................... 5

• Other Biology Electives (5 hours)

Required From Other Departments (36 hours)

CHEM 215: General Chemistry I .................................. 3
and CHEM 216: General Chemistry I Laboratory .......... 2
CHEM 225: General Chemistry II .................................. 3
and CHEM 226: General Chemistry II Laboratory .......... 2
CHEM 320: Introductory Organic Chemistry .................. 3
and CHEM 326: Organic Chemistry Laboratory .......... 2
HHP 260: First Aid and CPR .................................. 2
MATH 122: Plane Trigonometry .................................. 3
PHYS 100: College Physics I .................................. 4
and PHYS 130: Elementary Physics Laboratory .......... 1
PHYS 101: College Physics II .................................. 4
and PHYS 131: College Physics Laboratory II .............. 1
PSYCH 263: Developmental Psychology .................. 3
PSYCH 571: Abnormal Psychology ......................... 3

Minor and other electives (4-10 hours)

Physical Science minor included in above hours. Other minors will need more hours.

TOTAL hours for Bachelor of Science Degree with a Major in Biology: Pre-Physical Therapy Emphasis (124 hours)
NOTE: This curriculum will meet the requirements at Kansas University and Wichita State University for admission to the Master of Science program.

Other professional school requirements include: three recommendations, personal interview, grade point average of 3.00+, Graduate Record Exam, and brief internship.

Additional Requirements for Wichita State University

Choose three hours after meeting PSU general education requirements from: art, music, theatre, literature, history, foreign language, or philosophy.

Choose three hours after meeting PSU general education requirements from: geography, women's studies, psychology, political science, or sociology.

Required to complete HHP 464 Physiology of Exercise, 3 hours.

Other recommended course areas: business/management, physiology/psychology, kinesiology, muscle/nerve physiology, biochemistry, embryology.

Recommended minors include: psychology, recreation, physical science (built-in), chemistry.

Bachelor of Science Degree with a Major in Biology: Cellular and Molecular Biology Emphasis

The program listed below is a suggested curriculum for students pursuing cellular and molecular biology. The program meets all of the requirements for a baccalaureate degree with a major in biology and minors in chemistry and physical science at Pittsburg State University. This program will provide training to prepare a student for employment in the biotechnology field, forensics, or pharmaceutical development upon graduation, or pursuit of further studies at the graduate level.

General Education Requirements* (38-44 hours)

Basic Skills** (12 hours)

General Education Electives (26-32 hours)

- Sciences*** (0 hours)
- Social Studies (3 hours)
- Political Studies (3 hours)
- Producing and Consuming (5-6 hours)
- Fine Arts and Aesthetic Studies (2-3 hours)
- Cultural Studies (3-5 hours)
- Health and Well-Being (4-6 hours)
- Human Heritage (6 hours)

*Courses must be taken from the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

**Math requirement suggested MATH 150 Calculus I.

***General education sciences are satisfied by course requirements in biology (BIOL 211) and chemistry (CHEM 215/216).

Biology Core (30 hours)

BIOL 211: Principles of Biology I ........................................ 4
BIOL 212: Principles of Biology II ...................................... 4
BIOL 311: Cell Biology ..................................................... 3
BIOL 322: Genetics .......................................................... 3
and BIOL 323: Genetics Laboratory ................................. 2
BIOL 330: Principles of Ecology ....................................... 3
BIOL 371: General Microbiology ...................................... 3
and BIOL 372: General Microbiology Laboratory .......... 2

Upper Division Physiology (choose one)

BIOL 656: Human Physiology ....................................... 3
and BIOL 657: Human Physiology Laboratory ............. 2
BIOL 675: Microbial Physiology .................................... 3
and BIOL 676: Microbial Physiology Laboratory .......... 2
BIOL 685: Plant Physiology .......................................... 3
and BIOL 686: Plant Physiology Laboratory .................. 2
BIOL 699: Senior Seminar and Assessment ................. 1
Other Required Biology (10-12 hours)
BIOL 550: Advanced Cellular and Molecular Biology ........................................... 3
BIOL 551: Introduction to Recombinant DNA Techniques Laboratory .................. 3
BIOL 602: Topics in Biology (___) .......................................................... 1-3
BIOL 627: Genetics of Microorganisms .................................................. 3

* At least one credit hour is required for BIOL 602 and research must be done with faculty member.

Other Biology Electives chosen from (11 hours)
BIOL 570: Pathogenic Bacteriology .................................................. 3
and BIOL 571: Pathogenic Bacteriology Laboratory ............................................... 2
BIOL 572: General Virology .......................................................... 3
BIOL 650: Developmental Biology .................................................. 3
BIOL 671: Immunology .......................................................... 3
and BIOL 672: Immunology Laboratory .................................................. 2
BIOL 730: Evolution .......................................................... 3

Required From Other Departments (33 hours)
CHEM 215: General Chemistry I .................................................. 3
and CHEM 216: General Chemistry I Laboratory ............................................... 2
CHEM 225: General Chemistry II .................................................. 3
and CHEM 226: General Chemistry II Laboratory ............................................... 2
CHEM 325: Organic Chemistry I .................................................. 3
and CHEM 326: Organic Chemistry Laboratory ............................................... 2
CHEM 335: Organic Chemistry II .................................................. 3
and CHEM 336: Organic Chemistry II Laboratory ............................................... 2
CHEM 575: Biochemistry I .................................................. 3

Choose from (10 hours)
Choose from College Physics I and II or Engineering Physics I and II

PHYS 100: College Physics I .................................................. 4
and PHYS 130: Elementary Physics Laboratory I ............................................... 1
PHYS 101: College Physics II .................................................. 4
and PHYS 131: College Physics Laboratory II ............................................... 1
PHYS 104: Engineering Physics I .................................................. 4
and PHYS 130: Elementary Physics Laboratory I ............................................... 1
PHYS 105: Engineering Physics II .................................................. 4
and PHYS 132: Engineering Physics Laboratory II ............................................... 1
or PHYS 131: College Physics Laboratory II ............................................... 1

Unrestricted electives (to meet 124 hour minimum) (0-2 hours)

TOTAL hours for Bachelor of Science Degree with a Major in Biology: Cellular and Molecular Biology Emphasis (124 hours)

Bachelor of Science Degree with a Major in Biology: Field Biology and Environment Emphasis
Field Biology and Environment

The Field Biology and Environment emphasis is designed for students interested in the practice of conservation, fish or wildlife management, interpretation, pollution control, and environmental protection. The successful student may apply for entry-level jobs leading to careers working for state and federal agencies, engineering consulting firms, environmental organizations, and others. Alternatively, students may apply to graduate schools in natural resources management, environmental biology, or environmental science.

General Education Requirements* (38-44 hours)

Basic Skills (12 hours)

General Education Electives (26-32 hours)

Sciences** (0 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming (5-6 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)

Human Heritage (6 hours)
*Courses must be taken from the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

**General education sciences are satisfied by course requirements in biology (BIOL 211 and 212) and chemistry (CHEM 215/216).

** Biology- Basic (14-19 hours)
BIOL 111: General Biology ........................................... 3
and BIOL 112: General Biology Laboratory ................. 2
BIOL 211: Principles of Biology I ................................ 4
BIOL 212: Principles of Biology II ............................... 4
BIOL 322: Genetics .................................................. 2
and BIOL 323: Genetics Laboratory ......................... 2
BIOL 699: Senior Seminar and Assessment .............. 1

BIOL 111/112 General Biology/Laboratory is waived with ACT Comprehensive > 23 or permission of department.

** Biology- Intermediate (4 hours)
BIOL 330: Principles of Ecology. ................................. 3
BIOL 331: Principles of Ecology Laboratory ............... 1

** Required Biology Emphasis (9 hours)
BIOL 304: Soil Ecology ............................................ 3
BIOL 313: Principles of Conservation ....................... 3
BIOL 548: Taxonomy of Vascular Plants ..................... 3

Select 21 hours from the following groups (but at least 3 hours must be taken from groups 1, 2 and 3

** Group 1 Animals
BIOL 533: Ichthyology ............................................. 3
BIOL 534: Herpetology ............................................. 3
BIOL 535: Ornithology ............................................. 3
BIOL 536: Mammalogy ............................................. 3
BIOL 561: General Entomology .................................. 3

** Group 2 Ecology
BIOL 515: Stream Ecology ........................................ 3
BIOL 633: Limnology ................................................. 3
BIOL 639: Terrestrial Field Ecology ......................... 3

** Group 3 Management
BIOL 615: Environmental Protection ....................... 3
BIOL 634: Fisheries Management ............................. 5
BIOL 635: Wildlife Ecology and Management .............. 3

** Group 4 Plant Biology
BIOL 538: Aquatic Plants ........................................ 2
BIOL 641: Identification of Woody Plants ................. 2
BIOL 744: Identification of Mosses, Liverworts
and Ferns ....................................................... 3
BIOL 781: Freshwater Algae ................................... 3
BIOL 788: Mycology ............................................... 3

** Group 5 Other Field Biology and Environment
BIOL 502: Topics in Environmental Biology (____) .... 1-3
BIOL 537: Regional Natural History ......................... 3
BIOL 602: Topics in Biology (____) ............................ 1-3
BIOL 643: Natural History Interpretation ................. 3
BIOL 667: Animal Parasitology ................................ 3

** Other Required (28-37 hours)
CHEM 215: General Chemistry I ............................... 3
and CHEM 216: General Chemistry I Laboratory ....... 2
CHEM 320: Introductory Organic Chemistry ............. 3
and CHEM 326: Organic Chemistry Laboratory ........... 2
GEOG 303: Geographic Information Systems I .......... 4
PHYS 160: Physical Geology .................................... 3
and PHYS 165: Physical Geology Laboratory ............. 1

- Minor (Physical Science recommended) (6 hours)
- Other electives (4-13 hours)

TOTAL hours for Bachelor of Science Degree with a Major in Biology: Field Biology and Environment Emphasis (124 hours)
Bachelor of Science Degree with a Major in Biology: Ecology and Organismic Biology Emphasis

Ecology and Organismic Biology

The Ecology and Organismic Biology emphasis is designed for students interested in ecology, environment, and organismic biology (zoology, botany, mycology). The curriculum is flexible in order to meet the interests of students who wish a greater degree of specialization in ecology and organismic biology and desire to pursue research in these areas on the graduate level.

General Education Requirements* (38-44 hours)

Basic Skills (12 hours)

General Education Electives (26-32 hours)

Sciences** (0 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming (5-6 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)

Human Heritage (6 hours)

*Courses must be taken from the list approved by the General Education Committee, See General Education Requirements for All Baccalaureate Degrees.

**General education sciences are satisfied by course requirements in biology (BIOL 211 and 212) and chemistry (CHEM 215/216).

Biology- Basic (14-19 hours)

BIOL 111: General Biology ........................................... 3
and BIOL 112: General Biology Laboratory ...................... 2
BIOL 211: Principles of Biology I .................................... 4
BIOL 212: Principles of Biology II .................................... 4
BIOL 322: Genetics ....................................................... 3

and BIOL 323: Genetics Laboratory ............................... 2
BIOL 699: Senior Seminar and Assessment ...................... 1

BIOL 111/112 General Biology/Laboratory is waived with ACT Comprehensive >23 or permission of department.

Biology- Intermediate (12 hours)

BIOL 311: Cell Biology ................................................. 3
BIOL 330: Principles of Ecology ..................................... 3
BIOL 331: Principles of Ecology Laboratory ...................... 1
BIOL 371: General Microbiology .................................... 3
and BIOL 372: General Microbiology Laboratory .......... 2

Required Biology Emphasis (9 hours)

BIOL 304: Soil Ecology ................................................. 3
BIOL 313: Principles of Conservation ......................... 3
BIOL 548: Taxonomy of Vascular Plants ......................... 3

Select one course from each of the following groups 1-3 (8-9 hours)

Group 1 Animals

BIOL 533: Ichthyology ................................................. 3
BIOL 534: Herpetology ................................................. 3
BIOL 535: Ornithology ............................................... 3
BIOL 536: Mammalogy ................................................. 3
BIOL 561: General Entomology ..................................... 3

Group 2 Plants

BIOL 538: Aquatic Plants ............................................. 2
BIOL 641: Identification of woody Plants ....................... 2
BIOL 744: Identification of Mosses, Liverworts and Ferns ........................................ 3
BIOL 781: Freshwater Algae ......................................... 3
BIOL 788: Mycology ..................................................... 3

Group 3 Ecology

BIOL 502: Topics in Environmental Biology (____) ........ 1-3
BIOL 515: Stream Ecology ........................................... 3
BIOL 633: Limnology ................................................... 3
BIOL 639: Terrestrial Field Ecology ............................... 3
Other Biology Hours (9 hours)

Other Required (27-31 hours)

CHEM 215: General Chemistry I ...........................................3
and CHEM 216: General Chemistry I Laboratory ...........2
CHEM 320: Introductory Organic Chemistry. .................3
and CHEM 326: Organic Chemistry Laboratory .............2
GEOG 303: Geographic Information Systems I ..............4
PHYS 160: Physical Geology .............................................3
and PHYS 165: Physical Geology Laboratory ...............1

- Minor (Physical Science recommended) (6 hours)
- Other electives (3-7 hours)

TOTAL hours for Bachelor of Science Degree with a
Major in Biology: Ecology and Organismic Biology
Emphasis (124 hours)

Bachelor of Science Degree with a Major
in Biology: Plant Taxonomy

Plant Sciences

Pursue interests in plant ecology or plant taxonomy
(prepare for graduate studies or employment related to
training) or plant physiology/plant pathology (prepare
for careers in industry or for graduate research).

General Education Requirements* (38-44 hours)

Basic Skills (12 hours)

General Education Electives (26-32 hours)

Sciences** (0 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming (5-6 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)

Human Heritage (6 hours)

*Courses must be taken from the list approved by
the General Education Committee, See General
Education Requirements for All Baccalaureate Degrees.

**General education sciences are satisfied by course
requirements in biology (BIOL 211 and 212) and
chemistry (CHEM 215/216).

Biology Core (30 hours)

BIOL 211: Principles of Biology I ...............................4
BIOL 212: Principles of Biology II .............................4
BIOL 311: Cell Biology ..............................................3
BIOL 322: Genetics ..................................................3
and BIOL 323: Genetics Laboratory ..........................2
BIOL 330: Principles of Ecology .................................3
BIOL 371: General Microbiology .................................3
and BIOL 372: General Microbiology Laboratory ..........2
BIOL 685: Plant Physiology .......................................3
and BIOL 686: Plant Physiology Laboratory ..............2
BIOL 699: Senior Seminar and Assessment ..................1

Other Required Biology (6 hours)

BIOL 382: Plant Diversity ...........................................3
BIOL 639: Terrestrial Field Ecology ...........................3

Electives (9 hours)

Students choose a minimum of nine hours of electives
in consultation with their advisor.

BIOL 404: Plant Pathology ...........................................3
BIOL 602: Topics in Biology (____) .........................1-3
BIOL 788: Mycology .............................................3
MATH 143: Elementary Statistics ..............................3
MATH 646: Statistical Methods I ..............................3
PHYS 160: Physical Geology ...................................3
PHYS 260: Historical Geology .................................5

Required from other departments (10 hours)

CHEM 215: General Chemistry I ...............................3
and CHEM 216: General Chemistry I Laboratory .......2
CHEM 320: Introductory Organic Chemistry. ..........3
or CHEM 325: Organic Chemistry I ..........................3
and CHEM 326: Organic Chemistry Laboratory ........2
Minor (10-20 hours)
A student is required to minor in a field outside biology. The choice should be made in consultation with the student's major advisor (10-20 hours)

Other Electives (5-21 hours)

TOTAL hours for Bachelor of Science Degree with a Major in Biology: Plant Taxonomy (124 hours)

Bachelor of Science Degree with a Major in Biology: Plant Physiology/Plant Molecular Biology

Plant Sciences
Pursue interests in plant ecology or plant taxonomy (prepare for graduate studies or employment related to training) or plant physiology/plant pathology (prepare for careers in industry or for graduate research).

General Education Requirements* (38-44 hours)

Basic Skills (12 hours)

General Education Electives (26-32 hours)

Sciences** (0 hours)
Social Studies (3 hours)
Political Studies (3 hours)
Producing and Consuming (5-6 hours)
Fine Arts and Aesthetic Studies (2-3 hours)
Cultural Studies (3-5 hours)
Health and Well-Being (4-6 hours)
Human Heritage (6 hours)

*Bourses must be taken from the list approved by the General Education Committee, See General Education Requirements for All Baccalaureate Degrees.

**General education sciences are satisfied by course requirements in biology (BIOL 211) and chemistry (CHEM 215/216).

Biology Core (30 hours)
BIOL 211: Principles of Biology I ........................................ 4
BIOL 212: Principles of Biology II ...................................... 4
BIOL 311: Cell Biology ..................................................... 3
BIOL 322: Genetics .......................................................... 3
and BIOL 323: Genetics Laboratory ................................ 2
BIOL 330: Principles of Ecology ....................................... 3
BIOL 371: General Microbiology ..................................... 3
and BIOL 372: General Microbiology Laboratory ........... 2
BIOL 685: Plant Physiology .............................................. 3
and BIOL 686: Plant Physiology Laboratory ..................... 2
BIOL 699: Senior Seminar and Assessment. ..................... 1

Other Required Biology (15 hours)
BIOL 382: Plant Diversity .............................................. 3
BIOL 550: Advanced Cellular and Molecular Biology .................. 3
BIOL 551: Introduction to Recombinant DNA Techniques Laboratory ........................................ 3
BIOL 627: Genetics of Microorganisms ......................... 3
BIOL 730: Evolution ....................................................... 3

Required from other departments (10 hours)
CHEM 215: General Chemistry I ..................................... 3
and CHEM 216: General Chemistry I Laboratory ............. 2
CHEM 320: Introductory Organic Chemistry .................. 3
or CHEM 325: Organic Chemistry I ............................... 3
and CHEM 326: Organic Chemistry Laboratory ............. 2

Minor (10-20 hours)
A student is required to minor in a field outside biology. The choice should be made in consultation with the student's major advisor (10-20 hours)

Other Electives (5-21 hours)

TOTAL hours for Bachelor of Science Degree with a Major in Biology: Plant Physiology/Plant Molecular Biology (124 hours)
Bachelor of Science in Education Degree with a Major in Biology

Biology Education

Pursue an interest in secondary education (prepare for that all-important job of educating high school minds).

General Education Requirements for Students Preparing to Teach* (38-44 hours)

Basic Skills (12 hours)

General Education Electives (26-32 hours)

  Sciences** (0 hours)
  Social Studies (3 hours)
  Political Studies (3 hours)
  Producing and Consuming (5-6 hours)
  Fine Arts and Aesthetic Studies (2-3 hours)
  Cultural Studies (3-5 hours)
  Health and Well-Being (4-6 hours)
  Human Heritage (6 hours)

*Courses must be taken from the list of general education degree requirements for students preparing to teach secondary school. See General Education Requirements for Students Preparing to Teach Secondary School. Also see scholastic achievement requirements on common core courses for admission to teacher education for secondary teaching majors Scholastic Achievement in Common Core.

**General education sciences are satisfied by course requirements in biology (BIOL 211) and physical science (CHEM 105/106 or CHEM 215/216).

Biology Requirements (38 hours)

BIOL 211: Principles of Biology I ........................................... 4
BIOL 212: Principles of Biology II ......................................... 4
BIOL 257: Anatomy and Physiology ...................................... 3
and BIOL 258: Anatomy and Physiology Laboratory ............... 2
BIOL 300: Assisting in the Biology Laboratory ................. 1
BIOL 322: Genetics ............................................................ 3

and BIOL 323: Genetics Laboratory ................................. 2
BIOL 330: Principles of Ecology ........................................... 3
BIOL 371: General Microbiology ......................................... 3
and BIOL 372: General Microbiology Laboratory ............ 2
BIOL 479: Techniques for Teaching Biology ..................... 3

  • Biology electives (including 3 hour field course) (8 hours)

BIOL 479 Techniques for Teaching Biology can only be taken after admission to Teacher education

Professional Education Requirements* (12 hours)

EDUC 261: Explorations in Education ................................... 3
EDUC 520: Methods and Materials for Academic Literacy ................................................................. 3
PSYCH 263: Developmental Psychology .......................... 3
PSYCH 357: Educational Psychology .............................. 3
SPED 510: Overview of Special Education .................. 3

*See Admission to Professional Semester for professional education grade point requirements.

EDUC 520 Methods and Materials for Academic Literacy and PSYCH 357 Educational Psychology must have admission to Teacher Education to enroll.

Professional Semester (17 hours)

BIOL 579: Supervised Student Teaching and Follow-Up of Teachers ........................................... 2
EDUC 458: Methods and Curriculum .................................. 3
EDUC 462: Secondary and Middle Level Education ................................................................. 2
EDUC 464: Foundations of Measurement and Evaluation ...................................................... 2
EDUC 480: Supervised Teaching in the Secondary School ......................................................... 3
EDUC 482: Supervised Teaching in the Secondary School ......................................................... 5

Minor Requirements* (20 hours)

CHEM 105: Introductory Chemistry ................................. 3
and CHEM 106: Introductory Chemistry Laboratory ................................................................. 1
or CHEM 215: General Chemistry I ............................ 3
and CHEM 216: General Chemistry I Laboratory ..........2
CHEM 320: Introductory Organic Chemistry. ..............3
and CHEM 326: Organic Chemistry Laboratory ..........2
PHYS 100: College Physics I ......................................4
and PHYS 130: Elementary Physics Laboratory I ........1
or PHYS 171: Physical Science ...................................3
and PHYS 172: Physical Science Laboratory ...............1

- Additional hours chosen from chemistry or physics (5-11 hours)

*This curriculum assumes a physical science minor.
Other minors are available. Persons interested in biology as a second teaching field should contact the
BSEd advisor in the Department of Biology or the
Director of Teacher Education, Hughes Hall, for specific
requirements.

PHYS 171/172 Physical Science/Laboratory hours do not
count toward 20 hour physical science minor total.

Students planning to teach should become familiar with
the current Regulations for Certifying School Personnel,
issued by The State Board of Education. Information
concerning these regulations may be obtained from the
Director of Teacher Education, 110 Hughes Hall,
Pittsburg State University. See Admission to
Professional Semester for professional education grade
point requirements.

TOTAL hours for Bachelor of Science in Education
Degree with a Major in Biology (128-134 hours)

Bachelor of Science in Medical Technology

- General Education Requirements* (38-44 hours)

Basic Skills (12 hours)

General Education Electives (26-32 hours)

- Sciences** (0 hours)

- Social Studies (3 hours)

- Political Studies (3 hours)

- Producing and Consuming (5-6 hours)

- Fine Arts and Aesthetic Studies (2-3 hours)

- Cultural Studies (3-5 hours)

- Health and Well-Being (4-6 hours)

- Human Heritage (6 hours)

*Courses must be taken from the list approved by
the General Education Committee. See General
Education Requirements for All Baccalaureate Degrees.

**General education sciences are satisfied by course
requirements in biology (BIOL 211) and chemistry
(CHEM 215/216).

Biology Core (34 hours)

- BIOL 211: Principles of Biology I ..........................4
- BIOL 212: Principles of Biology II .........................4
- BIOL 257: Anatomy and Physiology ....................3
and BIOL 258: Anatomy and Physiology
Laboratory .............................................................2
- BIOL 322: Genetics ...............................................3
and BIOL 323: Genetics Laboratory ..........................2
- BIOL 371: General Microbiology .........................3
and BIOL 372: General Microbiology Laboratory ....2
- BIOL 570: Pathogenic Bacteriology .....................3
and BIOL 571: Pathogenic Bacteriology
Laboratory .............................................................2
- BIOL 671: Immunology ........................................3
and BIOL 672: Immunology Laboratory .................2
- BIOL 699: Senior Seminar and Assessment ............1

Required From Chemistry (20 hours)

- CHEM 215: General Chemistry I ..........................3
and CHEM 216: General Chemistry I Laboratory .......2
- CHEM 225: General Chemistry II .........................3
and CHEM 226: General Chemistry II Laboratory .....2
- CHEM 325: Organic Chemistry I ..........................3
and CHEM 326: Organic Chemistry Laboratory .......2
- CHEM 445: Analytical Chemistry .........................3
and CHEM 446: Analytical Chemistry Laboratory ....2
or CHEM 575: Biochemistry I ..............................3
and CHEM 576: Biochemistry I Laboratory ............2
**Clinical Year (30 hours)**
At a school of medical technology affiliated with Pittsburg State University.

**Other Electives (0-2 hours)**

TOTAL (minimum hours required) for Bachelor of Science in Medical Technology (124 hours)

Note: Only four of the 94 required hours in the first three years may be in ROTC or physical education activity courses. The student should consult the medical technology advisor for the determination of additional electives.

A student must complete the first three years (94 hours) at an accredited college or university with the last 30 of these hours being in residence at Pittsburg State University. The fourth year must be completed in a NAACLS accredited school of medical technology affiliated with this university. This university is currently affiliated with the following schools: L. E. Cox Medical Center, Springfield, Missouri; St. John's Medical Center, Joplin, Missouri; St. Luke’s, Kansas City, Missouri; North Kansas City Hospital, Kansas City, Missouri; St. John's Regional Health Center, Springfield, Missouri. Other clinical programs are open to PSU students. The student should consult the medical technology advisor for details.

**Minor in Biology**

**Biology (20 hours)**

BIOL 111: General Biology ........................................... 3
and BIOL 112: General Biology Laboratory ................... 2
BIOL 257: Anatomy and Physiology .......................... 3
and BIOL 258: Anatomy and Physiology Laboratory .......... 2
BIOL 322: Genetics .................................................... 3
and BIOL 323: Genetics Laboratory .............................. 2
BIOL 371: General Microbiology ................................ 3
and BIOL 372: General Microbiology Laboratory .......... 2

Those persons interested in biology as a second teaching option should contact the BSED advisor in the Department of Biology or the Director of Teacher Education, Hughes Hall, for specific requirements.

**Minor in General Science**

**General Science (21 hours)**

BIOL 111: General Biology ........................................... 3
and BIOL 112: General Biology Laboratory ................... 2
CHEM 215: General Chemistry I ................................. 3
and CHEM 216: General Chemistry I Laboratory .......... 2
PHYS 100: College Physics I ........................................ 4
and PHYS 130: Elementary Physics Laboratory I ........ 1
PHYS 160: Physical Geology ...................................... 3
or PHYS 175: Descriptive Astronomy ............................ 3

- Biology electives (3 hours)

Those persons interested in general science as a second teaching option should contact the BSED advisor in the Department of Biology or the Director of Teacher Education, Hughes Hall, for specific requirements.

**Minor in Natural History**

**Natural History (20 hours)**

BIOL 113: Environmental Life Science ......................... 4
BIOL 313: Principles of Conservation ......................... 3
BIOL 330: Principles of Ecology .................................. 3
BIOL 537: Regional Natural History ............................ 3
BIOL 643: Natural History Interpretation ..................... 3
PHYS 171: Physical Science ...................................... 3
and PHYS 172: Physical Science Laboratory ................. 1

Those persons interested in the above minor should contact Dr. Cynthia Ford or the Department of Biology for information.

**Minor in Cell Biology**

**Cell Biology (22-24 hours)**

BIOL 311: Cell Biology .............................................. 3
BIOL 322: Genetics .................................................... 3
BIOL 323: Genetics Laboratory ................................... 2
BIOL 371: General Microbiology ................................ 3
BIOL 372: General Microbiology Laboratory .............. 2
BIOL 550: Advanced Cellular and Molecular Biology ................................................................. 3
BIOL 551: Introduction to Recombinant DNA Techniques Laboratory ........................................... 3

One of the following groups of Biology electives (3 or 5 hours)
BIOL 627: Genetics of Microorganisms ......................................................... 3
BIOL 656: Human Physiology .............................................................. 3
and BIOL 657: Human Physiology Laboratory ........................................ 2
BIOL 675: Microbial Physiology ............................................................ 3
and BIOL 676: Microbial Physiology Laboratory ........................................ 2
BIOL 685: Plant Physiology ................................................................. 3
and BIOL 686: Plant Physiology Laboratory .............................................. 2

This minor is intended to provide biology courses for students pursuing a Chemistry major with an emphasis in biochemistry. Those persons interested in this minor should contact the Department of Biology for information.

Master of Science Degree with a Major in Biology

Students who begin work in biology for the degree of Master of Science must have completed a minimum of 25 hours of acceptable undergraduate courses in biology. These should include fundamental courses in botany, ecology, zoology, genetics, microbiology, and physiology. A cumulative total of 13 hours of chemistry, including organic chemistry is required. However, a student may apply certain senior-graduate or graduate level chemistry on the degree requirements upon the recommendation of the advisor. In addition, it is advisable that a student have work in physics and geology. While a knowledge of a foreign language and of computing is not required, it is strongly advised.

Admission to the department is contingent upon: (1) admission to the PSU Graduate School and (2) admission to the department. Admission to the department requires an advisor’s acceptance of a prospective master’s student. Students must contact individual faculty to discuss degree programs and admission. Avoid generic correspondence to all faculty – focus on those whose research area is one in which you are interested and be clear about your experience and interest in that area. Take some time to learn about the faculty member’s work. Obtain admission information and application forms from the PSU Office of Graduate and Continuing Studies and the Department of Biology.

Three options are available in biology:

Option I: Thesis. A minimum of 30 hours including BIOL 801 Introduction to Research, at least one hour in BIOL 800 Seminar and BIOL 890 Research and Thesis (4-6 hours) is required. All full-time graduate students are required to attend seminar. With the approval of the advisor and chairman, up to nine hours may be taken outside the Department of Biology.

Option II: Problem. A minimum of 32 hours including BIOL 801 Introduction to Research, at least one hour of BIOL 800 Seminar and BIOL 891 Research Problems (3 hours) is required. All full-time graduate students are required to attend seminar. With the approval of the advisor and chairman, up to 15 hours may be taken outside the Department of Biology. This option is primarily recommended for science teachers at the secondary school level.

Option III: Professional. A minimum of 36 hours is required. This option is intended for science professionals (e.g. those entering or currently serving as in-service teachers, and those in environmental/ecological/biotechnological careers) who need more experience in their areas of biological science and more focused preparation for work outside of their academic advancement. A minimum of 36 hours. BIOL 800 Seminar (1 hour), BIOL 801 Introduction to Research (3 hours) with a grade of B or better, BIOL 803 Biometry (3 hours) is required. With the approval of the advisor and chairperson, up to nine hours may be taken outside the Department of Biology. Only six of the 36 hours can be numbered below 700, and 21 of the 36 hours must be numbered 800-899.

Professional Experience: The experience will be arranged by the student, and may be voluntary or a paid position, as long as it is deemed “professional” by the student’s committee. Examples of professional experience might include (1) for a classroom teacher,
developing, and/or implementing a curriculum, (2) for an environmental scientist, designing and/or implementing an environmental mitigation project, (3) for a biotechnologist, developing and or implementing a new process or product.

Final Presentation: Each graduate student in this option will provide a capstone report which synthesizes their professional experiences with their academic work. For example, the student should be able to explain and illustrate the way that the academic coursework and the experience complement each other. The end result should be a cohesive body of work that clearly states to the committee, departmental faculty and students how this work (1) addressed the goals and objectives, and (2) will enhance the professional life. The final professional presentation will be viewed by the student’s committee and open to the public, with a written manuscript offered for perusal at least two weeks prior to the presentation date.
Chemistry

Chairperson: Khamis S. Siam
Professor(s): James McAfee*, Dilip K. Paul*, Zoran Petrovic* (Research Director, Kansas Polymer Research Center), William Shirley*, Khamis S. Siam*
Associate Professor(s):
Assistant Professor(s): Charles Neef*, Irene Zegar*
Instructors: Kristopher Mijares*
Research Faculty: Mihail Ionescu*, Ivan Javni*

*Graduate Faculty

Room 104 Heckert-Wells
Telephone: 620-235-4748
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http://www.pittstate.edu/department/chemistry/
E-mail: chem@pittstate.edu

Undergraduate

Bachelor of Science Degree with a Major in Chemistry
Bachelor of Science in Education Degree with a Major in Chemistry
Minor in Chemistry
Minor in Physical Science
Second Teaching Option in Chemistry

Graduate

Master of Science Degree with a Major in Chemistry

Baccalaureate Degrees

The Bachelor of Science degree with a major in chemistry is available in six areas of emphasis:
Professional (ACS approved); Biochemistry; Polymer Chemistry; Pre-Medicine; Environmental Chemistry; and Pharmaceutical Chemistry. The Professional emphasis is an American Chemical Society approved degree plan. This degree plan is designed to prepare students for professional careers.

The Bachelor of Science in Education with a major in chemistry is designed for the student desiring to prepare for secondary level chemistry teaching.

The University's requirements for all baccalaureate degrees can be found at General Education Requirements for All Baccalaureate Degrees and for the master's degree at Graduate Degrees and Options.

Other Professional Programs

The Department of Chemistry offers pre-professional work in health sciences. Baccalaureate degrees leading to medical or pharmacy careers are described below. Details concerning these programs can be obtained from the department.

Minor Sequences

Are applicable to Bachelor of Arts, Bachelor of Science and Bachelor of Science in Education degrees.

Bachelor of Science Degree with a Major in Chemistry

The degree requirements for a Bachelor of Science degree with a major in chemistry requires a minimum of 124 semester hours. A minor is required for all emphases except Pharmaceutical Chemistry.

Students majoring in chemistry may complete the last 34 hours of their degree at an accredited school of engineering, provided a cooperative program leading to both a BS degree in chemistry and BS degree in engineering has been established by both schools.

General Education Component* (47-56 hours)

Basic Skills** (12-14 hours)

General Education Electives (35-42 hours)

Sciences** (9-10 hours)
Social Studies (3 hours)
Political Studies (3 hours)
Producing and Consuming (5-6 hours)
Fine Arts and Aesthetic Studies (2-3 hours)
Cultural Studies (3-5 hours)
Health and Well Being (4-6 hours)
Human Heritage (6 hours)
*See General Education Requirements for All Baccalaureate Degrees for specific areas and courses.

**MATH 150 and core chemistry courses required in the major will fulfill a part of each of these requirements.

Core Chemistry Courses (25 hours)

CHEM 215: General Chemistry I ............................................. 3
and CHEM 216: General Chemistry I Laboratory .......... 2
CHEM 225: General Chemistry II ............................................. 3
and CHEM 226: General Chemistry II Laboratory .......... 2
CHEM 325: Organic Chemistry I ............................................. 3
and CHEM 326: Organic Chemistry Laboratory .......... 2
CHEM 335: Organic Chemistry II ............................................. 3
and CHEM 336: Organic Chemistry II Laboratory .......... 2
MATH 150: Calculus I ............................................. 5

Choose one area of emphasis

A. Bachelor of Science Degree with a Major in Chemistry: Professional Emphasis (ACS approved)

Chemistry Courses (31 hours)

CHEM 445: Analytical Chemistry. ............................................. 3
and CHEM 446: Analytical Chemistry Laboratory .......... 2
CHEM 575: Biochemistry I ............................................. 3
CHEM 593: Physical Chemistry I ............................................. 3
and CHEM 594: Physical Chemistry I Laboratory .......... 2
CHEM 595: Physical Chemistry II ............................................. 3
CHEM 596: Advanced Inorganic-Physical Chemistry Laboratory ............................................. 2
CHEM 601: Chemistry Colloquium ........................................... 0-1
CHEM 611: Senior Review and Assessment .......... 1
CHEM 623: Inorganic Chemistry ............................................. 3
CHEM 645: Instrumental Analysis ............................................. 3
and CHEM 646: Instrumental Analysis Laboratory ........................................... 2

Chemistry electives chosen from (3 hours)

CHEM 399: Junior Research in Chemistry .......... 1-3
CHEM 576: Biochemistry I Laboratory. .......... 2
CHEM 620: Polymer Chemistry. ............................................. 3
and CHEM 621: Polymer Chemistry Laboratory .......... 2

CHEM 699: Senior Research in Chemistry .......... 1-3
CHEM 773: Biochemistry II ............................................. 3
and CHEM 774: Biochemistry II Laboratory .......... 2
CHEM 793: Advanced Chemical Kinetics .......... 3
One hour CHEM 601 Chemistry Colloquium is required.

Other (18 hours)

PHYS 104: Engineering Physics I ........................................... 4
and PHYS 130: Elementary Physics Laboratory I .......... 1
PHYS 105: Engineering Physics II ........................................... 4
and PHYS 132: Engineering Physics Laboratory II .......... 1
MATH 155: Calculus II ............................................. 5
MATH 253: Calculus III ............................................. 3
A minor in Mathematics is recommended.

B. Bachelor of Science Degree with a Major in Chemistry: Biochemistry Emphasis

Chemistry Courses (17 hours)

CHEM 575: Biochemistry I ............................................. 3
and CHEM 576: Biochemistry I Laboratory .......... 2
CHEM 593: Physical Chemistry I ............................................. 3
and CHEM 594: Physical Chemistry I Laboratory .......... 2
CHEM 601: Chemistry Colloquium ........................................... 0-1
CHEM 611: Senior Review and Assessment .......... 1
CHEM 773: Biochemistry II ............................................. 3
and CHEM 774: Biochemistry II Laboratory .......... 2
One hour CHEM 601 Chemistry Colloquium is required.

Other (10 hours)

PHYS 104: Engineering Physics I ........................................... 4
or PHYS 100: College Physics I ........................................... 4
and PHYS 130: Elementary Physics Laboratory I .......... 1
PHYS 105: Engineering Physics II ........................................... 4
and PHYS 132: Engineering Physics Laboratory II .......... 1
or PHYS 101: College Physics II ........................................... 4
and PHYS 131: College Physics Laboratory II .......... 1
A biology minor designed to complement this major should be selected or is highly recommended. An undergraduate research experience in this area is highly recommended.
C. Bachelor of Science Degree with a Major in Chemistry: Polymer Chemistry Emphasis

Chemistry Courses (23 hours)
CHEM 445: Analytical Chemistry ......................... 3
and CHEM 446: Analytical Chemistry Laboratory .... 2
CHEM 593: Physical Chemistry I .......................... 3
and CHEM 594: Physical Chemistry I Laboratory .... 2
CHEM 601: Chemistry Colloquium ...................... 0-1
CHEM 611: Senior Review and Assessment ............ 1
and CHEM 621: Polymer Chemistry Laboratory ...... 2
CHEM 720: Advanced Polymers ......................... 3
CHEM 785: Physical Chemistry of Polymers .......... 3
One hour CHEM 601 Chemistry Colloquium is required.

Other (10 hours)
PHYS 104: Engineering Physics I ....................... 4
or PHYS 100: College Physics I .......................... 4
and PHYS 130: Elementary Physics Laboratory ...... 1
PHYS 105: Engineering Physics II ...................... 4
and PHYS 132: Engineering Physics Laboratory II .. 1
or PHYS 101: College Physics II ........................ 4
and PHYS 131: College Physics Laboratory II ........ 1
The suggested minor or second major should be chosen from Biology. All prospective pre-medicine students should see a Chemistry Department Pre-Medicine advisor prior to their first registration. This program is also designed for pre-dental, pre-physical therapy, pre-veterinary and other medically related programs.

E. Bachelor of Science Degree with a Major in Chemistry: Environmental Chemistry Emphasis

Chemistry Courses (17 hours)
CHEM 445: Analytical Chemistry ....................... 3
and CHEM 446: Analytical Chemistry Laboratory .... 2
CHEM 593: Physical Chemistry I ....................... 3
and CHEM 594: Physical Chemistry I Laboratory .... 2
CHEM 601: Chemistry Colloquium ...................... 0-1
CHEM 611: Senior Review and Assessment ............ 1
and CHEM 646: Instrumental Analysis .................. 3
CHEM 645: Instrumental Analysis Laboratory ........ 2
One hour CHEM 601 Chemistry Colloquium is required.

D. Bachelor of Science Degree with a Major in Chemistry: Pre-Medicine/Pre-Medical Profession Emphasis

Chemistry Courses (17 hours)
CHEM 575: Biochemistry I ............................... 3
and CHEM 576: Biochemistry I Laboratory .......... 2
CHEM 593: Physical Chemistry I ....................... 3
and CHEM 594: Physical Chemistry I Laboratory .... 2
CHEM 601: Chemistry Colloquium ...................... 0-1
CHEM 611: Senior Review and Assessment ............ 1
CHEM 773: Biochemistry II ............................. 3
and CHEM 774: Biochemistry II Laboratory .......... 2
One hour CHEM 601 Chemistry Colloquium is required.

Other (10 hours)
PHYS 104: Engineering Physics I ....................... 4
or PHYS 100: College Physics I .......................... 4
and PHYS 130: Elementary Physics Laboratory ...... 1
PHYS 105: Engineering Physics II ...................... 4
and PHYS 132: Engineering Physics Laboratory II .. 1
or PHYS 101: College Physics II ........................ 4
and PHYS 131: College Physics Laboratory II ........ 1
An appropriate minor or second major should be chosen from Engineering Technology or Biology. A course in statistics is highly recommended. An undergraduate research experience in analytical chemistry is highly recommended.
F. Bachelor of Science Degree with a Major in Chemistry: Pharmaceutical Chemistry Emphasis

GENERAL EDUCATION DEGREE REQUIREMENTS*

Courses meeting general education requirements may also satisfy major, minor, emphasis or program requirements.

Basic Skills (14 hours)
COMM 207: Speech Communication ......................... 3
ENGL 101: English Composition ............................. 3
ENGL 190: Honors English Composition .................... 3
or ENGL 299: Introduction to Research Writing .............. 3
MATH 150: Calculus I .............................................. 5

*General Education Electives (25-26 hours)

Sciences (9-10 hours)

Natural Sciences (Select one)
BIOL 111: General Biology ........................................ 3
and BIOL 112: General Biology Laboratory .................... 2
BIOL 211: Principles of Biology I ................................. 4

Physical Science
Satisfied by the Major

Social Studies
SOC 100: Introduction to Sociology .............................. 3

Political Studies
POLS 101: U.S. Politics ............................................. 3

Fine Arts and Aesthetic Studies
MUSIC 120: Music Appreciation (___) .......................... 3

Health and Well Being
PSYCH 155: General Psychology ............................... 3
HHP 150: Lifetime Fitness Concepts ............................. 1

Human Heritage (Select one)
HIST 101: World History to 1500 ............................... 3

Chemistry Courses (20 hours)
CHEM 215: General Chemistry I ................................. 3
and CHEM 216: General Chemistry I Laboratory ........ 2
CHEM 225: General Chemistry II ................................ 3
and CHEM 226: General Chemistry II Laboratory ........ 2
CHEM 325: Organic Chemistry I ................................. 3
and CHEM 326: Organic Chemistry Laboratory ............ 2
CHEM 335: Organic Chemistry II ............................... 3
and CHEM 336: Organic Chemistry II Laboratory ........ 2
One hour CHEM 601 Chemistry Colloquium is required.

Biology Courses (10 hours)
BIOL 257: Anatomy and Physiology ........................... 3
and BIOL 258: Anatomy and Physiology Laboratory .......... 2
BIOL 371: General Microbiology ............................... 3
and BIOL 372: General Microbiology Laboratory ........... 2

Mathematics Courses
MATH 150 Calculus I (5 hours) (Satisfied by General Education)

*Approved by the General Education Committee

A minor is not required for the pharmaceutical chemistry emphasis.

Remaining requirements for the baccalaureate degree are fulfilled upon satisfactory completion of the first two years of any accredited pharmacy school curriculum. An official transcript will need to be sent directly from the pharmacy school to Pittsburg State University, Registrar’s office. Restrictions on credit hours earned on campus and in the final semester are waived.

Sample Professional Curriculum* (A minimum of 56 hours to be transferred from an accredited School of Pharmacy).

P&TX 630 Pharmacology I (4 hours)
MDCM 601 Medicinal Biochemistry I (4 hours)
MDCM 602 Medicinal Biochemistry Laboratory (1 hour)
PHPR 500 Early Pharmacy Practice Experience (1 hour)
PHCH 517 Calculations (2 hour)
PHPR 620 Ethics & Intro to Law (1 hour)
PHAR 507 Dean’s Orientation & Introduction to Pharmacy (1 hour)
MDCM 603 Medicinal Biochemistry II (3 hours)
PHCH 518 Principles of Solution/Dosage Forms (3 hours)
P&TX 631 Pharmacology II (4 hours)
PHAR 502 Pharmacy Practice II (3 hours)
PHAR 510 Laboratories (1 hour)
PHAR 505 Immunization Theory and Practice (1 hour)
MDCM 625 Medicinal Chemistry I (3 hours)
P&TX 632 Pharmacology III (4 hours)
PHCH 625 Pharmacokinetics (3 hours)
PHPR 503 Pharmacy Practice III (4 hours)
PHAR 515 Laboratories (1 hour)
MDCM 626 Medicinal Chemistry II (3 hours)
P&TX 640 Toxicology (2 hours)
PHPR 646 Pharmacotherapy I (4 hours)
PHCH 626 Biopharmaceutics & Drug Delivery (3 hours)
PHPR 619 Health Care Systems (3 hours)
PHAR 520 Laboratories (2 hours)

*The Sample Professional Curriculum indicated reflects the University of Kansas Pharmacy Curriculum but the Curriculum is representative of all Pharmacy Schools in the United States.

Bachelor of Science in Education Degree with a Major in Chemistry

General Education Component* (47-56 hours)

All students preparing to teach must meet the general education requirements for all baccalaureate degrees as well as the requirements for teacher certification. The following plan will satisfy both requirements.

Basic Skills** (12-14 hours)

General Education Electives (35-42 hours)

Sciences** (9-10 hours)
Social Studies (3 hours)
Political Studies (3 hours)
Producing and Consuming** (5-6 hours)
Fine Arts and Aesthetic Studies (2-3 hours)
Cultural Studies (3-5 hours)
Health and Well Being (4-6 hours)
Human Heritage (6 hours)

*See General Education Requirements for Students Preparing to Teach Secondary School for specific areas and courses.

**MATH 150 and PHYS 104/130 required in the professional components will partially fulfill these requirements.

Professional Studies Component

In addition to the professional education courses listed in (1), the student must complete the courses for the teaching specialty listed in (2).

(1) Teaching and learning theory with laboratory and clinical experience*

EDUC 261: Explorations in Education .................... 3
PSYCH 263: Developmental Psychology .................. 3
PSYCH 357: Educational Psychology ...................... 3
CHEM 479: Techniques for Teaching Chemistry ........... 3
SPED 510: Overview of Special Education ................. 3
EDUC 520: Methods and Materials for Academic Literacy ................................................................. 3

Professional Semester (SR. year)
EDUC 458: Methods and Curriculum ............................... 3
EDUC 462: Secondary and Middle Level Education ................................................................. 2
EDUC 464: Foundations of Measurement and Evaluation .......................................................... 2
EDUC 480: Supervised Teaching in the Secondary School ......................................................... 3
EDUC 482: Supervised Teaching in the Secondary School ......................................................... 5
CHEM 579: Supervised Student Teaching and Follow-Up of Teachers .................................. 2

*See Admission to Professional Semester for professional education grade point requirements.

(2) Content for the teaching specialty
Chemistry (36 hours)
CHEM 215: General Chemistry I ........................................... 3
and CHEM 216: General Chemistry I Laboratory .......... 2
CHEM 225: General Chemistry II. ...................................... 3
and CHEM 226: General Chemistry II Laboratory .......... 2
CHEM 325: Organic Chemistry I. ................................. 3
and CHEM 326: Organic Chemistry Laboratory .......... 2
CHEM 335: Organic Chemistry II. ................................. 3
and CHEM 336: Organic Chemistry II Laboratory .......... 2
CHEM 369: Laboratory Assistant Practicum I . .......... 3
CHEM 445: Analytical Chemistry. ................................. 3
and CHEM 446: Analytical Chemistry Laboratory ..... 2
CHEM 469: Laboratory Assistant Practicum II ............. 3
CHEM 569: Laboratory Assistant Practicum III ........... 3
CHEM 601: Chemistry Colloquium . ............................. 0-1
CHEM 611: Senior Review and Assessment .................. 1
One hour CHEM 601 Chemistry Colloquium is required.

Other (15 hours)
MATH 150: Calculus I .......................................................... 5
PHYS 104: Engineering Physics I .................................... 4
or PHYS 100: College Physics I .................................... 4
and PHYS 130: Elementary Physics Laboratory I ........1
PHYS 105: Engineering Physics II ................................. 4
and PHYS 132: Engineering Physics Laboratory II ....... 1
or PHYS 101: College Physics II .................................... 4
and PHYS 131: College Physics Laboratory II ........... 1

*Engineering Physics is recommended and required for physics certification or additional study in chemistry.

A minor is required. Either biology or mathematics is recommended.

The Bachelor of Science in Education degree requires a minimum of 124 semester hours.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University. See Admission to Professional Semester for professional education grade point requirements.

Minor in Chemistry
At least 20 semester hours in chemistry. Students may not count both CHEM 320/326 Introductory Organic Chemistry/Laboratory and CHEM 325/326 Organic Chemistry I Laboratory. No geology courses, CHEM 105/106 Introductory Chemistry/Laboratory, CHEM 107/108 Chemistry for the Life Sciences/Laboratory or CHEM 112/113 Essentials of Chemistry/Laboratory may be used toward the 20 semester hours.

Minor in Physical Science
See Physics Minor in Physical Science for requirements.

Second Teaching Option in Chemistry
Those persons interested in chemistry as a second teaching option should contact the chairperson of the Department of Chemistry or the Licensure Officer in the College of Education, 110 Hughes Hall, for specific requirements.

Master of Science Degree with a Major in Chemistry
The Master of Science degree with a major in chemistry is available in two options. Option I, a thesis program, is designed to prepare students for advanced professional careers. The Option II program is designed to prepare
students for advanced technical positions in chemistry, chemical technology or chemical related industry.

Candidates for the master's degree should have completed college programs comparable to the Option I Bachelor of Science degree with a major in chemistry offered by this department. The department's graduate faculty will act as a committee for the purpose of planning, approving, and monitoring each graduate student's program. Only senior-graduate and graduate courses in chemistry may be used to meet the degree requirements; however, credit in senior-graduate and graduate courses in other disciplines may be substituted if approved by the chemistry department's graduate faculty.

At least one three-hour graduate level course must be completed in physical chemistry and two three-hour graduate level courses must be completed from other major sub-disciplines of chemistry: analytical, biological, computational, inorganic or organic chemistry. Enrollment and participation in Colloquium is required every semester in the MS program. All MS candidates will participate in departmental safety programs.

Option I: Thesis

Graduates from this program are prepared for professional careers as chemists in research or industrial settings, or to continue graduate study at PhD granting universities.

The degree requires the completion of a minimum of 30 semester hours, including at least six hours of CHEM 890 Research and Thesis as determined to be necessary by the department to successfully complete approved thesis research and a formal oral defense.

Option II: Research Problem

(Technical Emphasis)

This program is designed to prepare the graduate for a position in a chemical or chemistry related industry. The degree requires the completion of a minimum of 33 semester hours, including at least six hours of CHEM 891 Research Problems, as determined by the department to be necessary to successfully complete the required research with a written report and oral presentation.

(Teaching Emphasis)

Secondary school science teachers electing this program will complete a minimum of 33 semester hours including at least six hours of CHEM 891 Research Problems, as determined by the department to be necessary to successfully complete the required research with a written report.
Communication

Chairperson: Cynthia L. Allan
Professor(s): Cynthia L. Allan*, Shirley K. Drew*, **
Associate Professor(s): Mark Arbuckle*, Troy Comeau*,
    Michael Gullett*, Joey Pogue*
Assistant Professor(s): Doug Bennett, Leo Hudson*,
    Alicia Mason*, Trent Kling
Instructors: Gil Cooper, Joshua Letner

* Graduate Faculty
** University Professor

Room 215 Grubbs Hall
Telephone: 620-235-4716
Fax: 620-235-4686
http://www.pittstate.edu/department/communication/
E-mail: callan@pittstate.edu

Undergraduate

Bachelor of Science Degree with a Major in
    Communication
Bachelor of Science in Education Degree with a Major
    in Communication
Minor in Communication (Teaching)
Minor in Communication

Graduate

Master of Arts Degree with a Major in Communication

The Department of Communication offers a curriculum
designed to provide variety and flexibility in meeting a
broad range of academic and professional interests in
human communication, mass media and the theatre arts. Courses and emphasis offered are supportive of
occupational preparation in a variety of areas, particularly education, law, politics, personnel
management, public relations, print and broadcast journalism, mass media, advertising, arts management
and the entertainment services. Consult the department for recommended courses.

BACCALAUREATE DEGREES

The Department of Communication offers work leading
to the degrees of Bachelor of Science and Bachelor of
Science in Education. Both degrees require the
completion of 124 hours and the completion of a
minor. See General Education Requirements for All
Baccalaureate Degrees.

The Department of Communication considers a grade of
“D” or “F” in a major course insufficient to gain the
necessary knowledge and/or skills provided by our
classes. Students who do not earn a grade of “C” or
better will not get credit for those courses in their
major.

If a student does not earn at least a “C” in a department
core requirement he/she must retake the course and
earn a “C” or better in order to continue as a
communication major.

If a student does not earn at least a “C” in an emphasis
requirement he/she must retake the course and earn a
“C” or better in order to continue as a communication
major with that selected emphasis area.

Students who do not earn at least a “C” in an elective
course may retake the course and if they earn a “C” or
better then that course would be counted toward the
major.

Students who do earn at least a “C” in an elective
course may elect to take an alternate course to fulfill
the elective requirements for the communication
major.

Bachelor of Science Degree with a Major
    in Communication

A student seeking a Bachelor of Science degree with a
major in communication will choose one area of
professional emphasis from the following: advertising,
broadcasting, news editorial, photojournalism, public
relations or theatre. The degree requires the
completion of a minor.

Communication majors are expected to take either
COMM 105 Performance Appreciation or COMM 205
Performance Studies to fulfill the General Education requirement for the Fine Arts and Aesthetic Studies area. Refer to General Education Requirements for All Baccalaureate Degrees.

I. Core Requirements (18 hours)
COMM 199: Introduction to Communication Careers ............................................................ 1
COMM 200: Introduction to Mass Communication ........................................................................ 3
COMM 399: Communication Career Development ................................................................... 1
COMM 699: Communication Careers in Society ................................................................. 1
COMM 629: Theories of Human Communication ................................................................. 3

(Select two of the following three) (6 hours)
COMM 307: Advanced Speech Communication ........... 3
COMM 450: Small Group Communication ................. 3
COMM 730: Interpersonal Communication ................. 3

(Select one from the following five) (3 hours)
COMM 274: Introduction to Audio and Video Production ...................................................... 3
COMM 276: Photojournalism I .................................. 3
COMM 537: Integrated Electronic Communication .................................................................. 3
GIT 221: Web Graphics Software .................................. 3
GIT 240: Page Layout Software ................................ 3

II. Professional Career Emphasis (12 hours)
Select one group of courses from the following six areas.

Area: Advertising
COMM 230: Principles of Advertising .......................... 3
COMM 330: Advertising Copywriting .......................... 3
COMM 674: Media Buying and Selling ...................... 3
or COMM 731: Advertising Campaigns .................... 3
COMM 717: Research Procedures in Communication ......................................................... 3

Area: Broadcasting
COMM 274: Introduction to Audio and Video Production ...................................................... 3
COMM 374: Broadcast Writing ..................................... 3
COMM 475: Audio Production ..................................... 3
or COMM 733: Television Producing and Directing ......................................................... 3
COMM 575: Television Production ............................. 3

Area: Journalism - News Editorial
COMM 225: Reporting ................................................. 3
COMM 340: Publications Practice ................................. 3
or COMM 350: Editing ............................................... 3
COMM 415: Advanced Reporting ............................... 3
COMM 626: Law of Mass Communication .................... 3

Area: Journalism - Photojournalism
COMM 276: Photojournalism I .................................. 3
COMM 435: Photojournalism II .................................. 3
COMM 638: Professional Photojournalism/Picture Editing .................................................. 3
COMM 642: Documentary Photojournalism/Electronic Imaging ........................................... 3

Area: Public Relations
COMM 277: Introduction to Public Relations ................. 3
COMM 576: Writing for Public Relations ...................... 3
COMM 717: Research Procedures in Communication ......................................................... 3
COMM 775: Case Studies in Public Relations ................ 3
or COMM 765: Strategic Planning for Communication Campaigns ...................................... 3

Area: Theatre
COMM 205: Performance Studies ................................. 3
COMM 295: Theatre History (___) ............................... 3
COMM 363: Technical Production I ............................. 3
COMM 544: Stage Direction ......................................... 3

III. Applied Communication (6 hours)
Select two courses from the following list.

COMM 225: Reporting ................................................. 3
COMM 254: Acting Studies ......................................... 3
COMM 274: Introduction to Audio and Video Production ........................................... 3
COMM 276: Photojournalism I .......................................................... 3
COMM 309: Forensic Practices (____) ........................................ 1-3
COMM 330: Advertising Copywriting .................................................. 3
COMM 335: Feature Writing ................................................................. 3
COMM 350: Editing ........................................................................ 3
COMM 363: Technical Production I ..................................................... 3
COMM 374: Broadcast Writing ............................................................ 3
COMM 375: Broadcast Announcing ..................................................... 3
COMM 390: Sports Broadcasting I ....................................................... 3
COMM 415: Advanced Reporting ......................................................... 3
COMM 435: Photojournalism II .......................................................... 3
COMM 463: Technical Production II ..................................................... 3
COMM 474: Promotional Video ............................................................ 3
COMM 475: Audio Production ............................................................. 3
COMM 490: Sports Broadcasting II ...................................................... 3
COMM 537: Integrated Electronic Communication .................................... 3
COMM 575: Television Production ....................................................... 3
COMM 576: Writing for Public Relations .............................................. 3
COMM 637: Online Publishing ............................................................ 3
COMM 638: Professional Photojournalism/Picture Editing ......................... 3
COMM 642: Documentary Photojournalism/Electronic Imaging ................. 3
COMM 663: Design Studies for Performance (____) ................................ 3
COMM 703: Public Relations/Advertising Production .............................. 3
COMM 733: Television Producing and Directing ..................................... 3
COMM 309 Forensic Practices has a limit of 3 hours.

IV. Communication in Society and Management (Select 9 credit hours with 6 of them in courses numbered 300 and above) (9 hours)
COMM 295: Theatre History (____) ...................................................... 3
COMM 367: Oral Interpretation of Literature ........................................ 3
COMM 405: Drama Studies (____) .......................................................... 3
COMM 450: Small Group Communication ......................................... 3
COMM 479: Techniques for Teaching Speech and Theatre ......................... 3
COMM 480: Exploration in Communication (____) ............................. 3
COMM 511: School Publications ....................................................... 3
COMM 544: Stage Direction ................................................................. 3
COMM 590: Sports, Media and Society ............................................... 3
COMM 601: Intercultural Communication ........................................... 3
COMM 623: History of Mass Communication ..................................... 3
COMM 625: Advanced Performance (____) ........................................... 3
COMM 626: Law of Mass Communication ........................................... 3
COMM 674: Media Buying and Selling ................................................. 3
COMM 702: Mass Media Management .............................................. 3
COMM 715: Documentary Filmmaking ................................................ 3
COMM 717: Research Procedures in Communication ............................. 3
COMM 721: Philosophy and Ethics in Mass Communication .................. 3
COMM 724: Editorial Writing ............................................................. 3
COMM 726: Media Analysis and Criticism (____) ................................. 3
COMM 730: Interpersonal Communication ........................................... 3
COMM 731: Advertising Campaigns ................................................... 3
COMM 755: Organizational Communication ........................................ 3
COMM 765: Strategic Planning for Communication Campaigns ............... 3
COMM 775: Case Studies in Public Relations ....................................... 3
COMM 785: International Communication ......................................... 3
COMM 795: Issues in Communication (____) ...................................... 3

V. Communication Practices (3 hours)
COMM 340: Publications Practice ....................................................... 3
COMM 410: Activity ......................................................................... 1-3
COMM 440: Topics in Theatre (____) ................................................. 1-3
COMM 441: Topics in Communication (____) ....................................... 1-3
or COMM 640: Topics in Communication (____) ................................... 1-3
or COMM 740: Topics in Communication (____) ................................... 1-3
COMM 460: Project in Theatre (____) ................................................... 1-3
or COMM 660: Project in Theatre (____) ............................................. 3
COMM 690: Internship in Applied Communication (____) ....................... 1-3
One course in the Department of Communication numbered 300 or above (3 hours)

Total for Core (48 hours)
Bachelor of Science in Education Degree with a Major in Communication
The Bachelor of Science in Education degree is designed for students preparing to teach speech communication and drama in grades 6-12 and is designed to meet state licensure requirements.

The student majoring in communication may earn the Bachelor of Science in Education degree by completing the Communication: Teaching sequence detailed below. The degree requires the completion of an approved minor.

Students should consult the appropriate sections of this catalog for the general requirements for the degree and for the specific regulations concerning admission to teacher education, required professional courses and the professional semester.

Communication majors take COMM 205 Performance Studies to fulfill the General Education requirement for the Fine Arts and Aesthetic Studies area. Refer to General Education Requirements for Students Preparing to Teach Secondary School. Also see Scholastic Achievement in Common Core.

Communication: Teaching (grades 6-12)

I. Communication Core Requirements (43 hours)
COMM 199: Introduction to Communication
Careers ................................................................. 1
COMM 200: Introduction to Mass Communication ........................................... 3
COMM 205: Performance Studies .................................................. 3
COMM 254: Acting Studies .............................................. 3
COMM 274: Introduction to Audio and Video Production ........................................... 3
COMM 295: Theatre History (___) ........................................ 3
COMM 307: Advanced Speech Communication .......................... 3
COMM 309: Forensic Practices (___) .................................. 1-3
COMM 363: Technical Production I ........................................... 3
COMM 367: Oral Interpretation of Literature .................................. 3
COMM 399: Communication Career Development .......................... 1
COMM 450: Small Group Communication .................................. 3
COMM 544: Stage Direction .................................................. 3
COMM 629: Theories of Human Communication .......................... 3
COMM 699: Communication Careers in Society .......................... 1
COMM 730: Interpersonal Communication ........................................... 3
COMM 309 Forensic Practices is split between Debate Theory (2 hours) and Field Experience (2 hours).

II. Professional Education Requirements* (35 hours)
Admission to Teacher Education (2nd semester sophomore, 1st semester junior)

Admission to Professional Semester (senior semester)
EDUC 261: Explorations in Education ........................................... 3
PSYCH 263: Developmental Psychology ........................................... 3
PSYCH 357: Educational Psychology ........................................... 3
COMM 479: Techniques for Teaching Speech and Theatre ........................................... 3
SPED 510: Overview of Special Education ........................................... 3
EDUC 520: Methods and Materials for Academic Literacy ........................................... 3

Professional Semester (senior)
EDUC 458: Methods and Curriculum ........................................... 3
EDUC 462: Secondary and Middle Level Education ........................................... 2
EDUC 464: Foundations of Measurement and Evaluation ........................................... 2
EDUC 480: Supervised Teaching in the Secondary School ........................................... 3
EDUC 482: Supervised Teaching in the Secondary School ........................................... 5
COMM 579: Supervised Student Teaching and Follow-Up of Teachers ........................................... 2
Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

*See Admission to Professional Semester for professional education grade point requirements

*Must be admitted to Teacher Education to enroll in these courses: PSYCH 357 Educational Psychology,
Master of Arts Degree with a Major in Communication

The applicant for admission to study for the degree of Master of Arts with a major in communication shall present evidence of completion of sufficient work in undergraduate courses, or professional experience, to furnish adequate background for graduate study in the field. If the graduate faculty determine that a student does not have sufficient background to pursue the Master of Arts with a major in communication, then up to 15 credits of undergraduate work may be required.

The minimum TOEFL score for students who did not earn a baccalaureate degree in an English speaking university and who wish to major in communication is 550. Applicants must have an undergraduate cumulative GPA of 3.00 for admission to the M.A. Program.

The Master of Arts with a major in communication is designed to meet the individual needs of each student. Students work with their advisor to structure a degree within the regulations of Pittsburg State University. Degrees can be designed to meet pre-doctoral preparation, professional preparation or the intellectual needs of the student.

The minimum course requirement for the master's degree Option I (which includes up to six credits of COMM 890 Research and Thesis) is 30 hours; Option II (which includes up to six hours of COMM 891 Research Problem) is 32 hours; Option III (which includes six hours of research seminars) is 32 hours.

Required courses for all options include COMM 815 Introduction to Graduate Study; COMM 870 Seminar in Mass Communication Theory or COMM 871 Seminar in Human Communication; one additional 800 level seminar course. The remaining courses may be elected with the approval of the advisor, in accordance with the student’s particular educational background and experience and his or her degree objective: employment in a teaching or a nonteaching field, additional graduate study, or personal enrichment.
English

Chairperson: Celia Patterson  
Associate Professor(s): John T.I. Franklin*  
Assistant Professor(s): Christopher T. Anderson*, Jamie L. McDaniel*, Philip W. Rudd*, Lowell Mick White, Janet S. Zepernick*  
Instructors: Lynn Caldwell-Hurd, Morgan Gross, D. Ann Meats  

*Graduate Faculty  
**University Professor

Room 434 Grubbs  
Telephone: 620-235-4689  
Fax: 620-235-4686  
http://www.pittstate.edu/department/english  
E-mail: engl@pittstate.edu

Undergraduate

Bachelor of Arts Degree with a Major in English  
Bachelor of Science in Education Degree with a Major in English  
Minor in English  
Minor in Creative Writing  
Minor in Technical/Professional Writing  
Minor in English (Teaching)

Graduate

Master of Arts Degree with a Major in English  
Specialist in Education: English

BACCALAUREATE DEGREES

The Department of English offers work leading to the degrees Bachelor of Arts and Bachelor of Science in Education.

Honors Courses

Any courses numbered 300-799 in the Description of Courses may be taken for departmental honors, except ENGL 505 Technical/Professional Writing Internship, ENGL 506 General English Internship, ENGL 579 Supervised Student Teaching and Follow-Up of Teachers, and ENGL 699 Senior Seminar in English.

General Education

Bachelor of Arts Traditional emphasis majors, Bachelor of Science in Education majors, and English (Teaching) minors may substitute ENGL 304 Introduction to Writing About Literature for the literature option under the Human Heritage category in the General Education program. Students who do so must take additional upper division literature electives to meet total credit hour requirements for their major emphasis or minor.

Directed Study Policy for Undergraduate Students

The English faculty believe that classroom experience is an important part of its courses. Therefore, the English Department does not offer directed/independent study courses to individual students on the undergraduate level. In exceptional circumstances involving demonstrated hardship, a student may apply to take a course vital to his/her academic program by independent study. Such applications must be approved by the departmental chairperson and the departmental Curriculum Committee. Application forms may be obtained from the English Department office.

Credit-by-Exam Policy

The English Department normally offers credit-by-examination in freshman composition only. Applications to attempt credit-by-exam for other departmental courses must be approved by the departmental chairperson and the departmental Curriculum Committee. In general, the English faculty believe that classroom experience is an important part of its courses; therefore, applications to attempt credit-by-exam will be approved only under special circumstances. Application forms may be obtained from the English Department office.

Required Writing Courses for Freshmen

Because students need to develop and maintain writing skills in their first two years of college, it is the policy of Pittsburg State University that all full-time freshmen and sophomore students shall be continuously enrolled in an appropriate writing course until they have
completed the Writing To Learn series of courses. In their first semester, full-time freshmen shall enroll in ENGL 101 English Composition, unless given credit by examination. Students who successfully complete ENGL 101 shall immediately take a Writing To Learn (WL) course in each of the next 2 semesters and shall complete the WL series by enrolling in ENGL 299 Introduction to Research Writing. Students with English ACT scores of 28 or higher (or certain other examination scores) and Honors College students enroll in ENGL 101-40 plus a WL class in the fall semester of their freshman year and in ENGL 190 Honors English Composition during the spring semester. These students complete the composition sequence by taking a second WL class after they successfully complete ENGL 190. Students who take ENGL 190 do not take ENGL 299 Introduction to Research Writing.

Part-time students shall complete the above sequence before they have accumulated 55 credit hours.

GRADUATE DEGREES
The Department of English offers work leading to the Master of Arts degree, and, in cooperation with the College of Education, the Specialist in Education degree for junior/community college teachers.

Bachelor of Arts Degree with a Major in English
A student seeking a Bachelor of Arts with a major in English will choose one of the four emphases described below. All candidates for this degree must complete a minor. All students seeking this degree should see Requirements for All Baccalaureate Degrees and General Education Requirements for All Baccalaureate Degrees. Persons completing this degree who plan to teach must also complete licensure requirements.

Core Requirements (18 hours)
Core for Traditional, Creative Writing, Technical/Professional Writing, and Language emphases of the Bachelor of Arts in English:

- ENGL 199: Introduction to English Studies ................... 2
- ENGL 202: English Grammar and Usage ....................... 3
- ENGL 220: World Masterpieces ................................. 3

- ENGL 230: American Literature .............................. 3
- ENGL 241: British Literature I ............................... 3
- ENGL 242: British Literature II ............................... 3
- ENGL 699: Senior Seminar in English ....................... 1

I. Traditional Emphasis (24 hours)
ENGL 304: Introduction to Writing About Literature ........................... 3

Writing elective selected from (3 hours)
ENGL 250: Introduction to Creative Writing .................. 3
ENGL 301: Technical/Professional Writing .................. 3
ENGL 302: Advanced Composition .......................... 3
ENGL 351: Fiction Writing ........................................ 3
ENGL 352: Poetry Writing ........................................ 3
ENGL 556: Topics in Writing (___) .......................... 3
ENGL 756: Topics in Writing (___) ........................ 1-3
ENGL 308: English Linguistics ................................ 3
or ENGL 603: History of the English Language ........ 3

- Literature electives* (9 hours)
- English electives (6 hours)

English majors and minors counting ENGL 304 Introduction to Writing About Literature for general education credit must take additional upper division literature electives to meet total hour requirements.

* Selected from literature courses numbered above 500; at least three credit hours must be American.

II. Creative Writing Emphasis (Poetry or Fiction) (24 hours)

Poetry
ENGL 250: Introduction to Creative Writing .................. 3
ENGL 346: The Craft of Poetry .................................. 3
ENGL 347: The Craft of Fiction .................................. 3
or ENGL 351: Fiction Writing .................................. 3
ENGL 352: Poetry Writing ........................................ 3
ENGL 452: Advanced Poetry Writing ......................... 3
ENGL 347: The Craft of Fiction .................................. 3
or ENGL 351: Fiction Writing .................................. 3
or ENGL 752: Senior Poetry Writing .......................... 3
or ENGL 753: Multi-Genre Writing ............................ 3

- Literature electives* (6 hours)
Fiction
ENGL 250: Introduction to Creative Writing ................. 3
ENGL 346: The Craft of Poetry ................................... 3
or ENGL 352: Poetry Writing ................................... 3
ENGL 347: The Craft of Fiction ................................... 3
ENGL 351: Fiction Writing ......................................... 3
ENGL 451: Advanced Fiction Writing .......................... 3
ENGL 346: The Craft of Poetry ................................... 3
or ENGL 352: Poetry Writing ................................... 3
or ENGL 751: Senior Fiction Writing .......................... 3
or ENGL 753: Multi-Genre Writing ............................... 3

*Selected from literature courses numbered 500 and above; at least three hours must be American.

ENGL 752 Senior Poetry Writing: Prerequisite: Completion of the 400-level course in the genre or permission of the Director of Creative Writing.

ENGL 753 Multi-Genre Writing: Require completion of ENGL 351 Fiction Writing or ENGL 352 Poetry Writing or permission of the Director of Creative Writing.

- Literature electives* (6 hours)

III. Technical/Professional Writing
Emphasis (24 hours)
ENGL 301: Technical/Professional Writing .................. 3
ENGL 501: Document Design ................................... 3
ENGL 503: Technical/Professional Editing ................... 3
ENGL 504: Advanced Technical/Professional Writing ...... 3
ENGL 505: Technical/Professional Writing Internship ... 1-3
GIT 240: Page Layout Software ................................ 3

Support Courses (select two)
(Other support courses approved by the Director of Technical/Professional Writing)
CIS 130: Computer Information Systems ..................... 3
CIS 240: C++ Programming .................................... 3
CIS 250: Principles of Software Design ........................ 3
GIT 221: Web Graphics Software ................................ 3
or COMM 537: Integrated Electronic Communication ..... 3

IV. Language Emphasis (24 hours)
ENGL 301: Technical/Professional Writing .................. 3
ENGL 302: Advanced Composition ............................. 3
ENGL 308: English Linguistics .................................. 3
ENGL 478: Literature for Middle and Secondary Schools ........................................... 3
ENGL 479: Techniques for Teaching English in Middle and Secondary Schools .................. 3
ENGL 603: History of the English Language ................. 3

- Electives in English (numbered 500+) (6 hours)

A minor in ESOL is strongly recommended

ESOL Minor (15 hours)
EDUC 551: Diversity in the Classroom ......................... 3
EDUC 552: Culture and Language Acquisition for English Language Learners ......................... 3
EDUC 553: Assessment and the English Language Learner ........................................... 3
EDUC 554: Methods and Instructional Materials for English Language Learners .................. 3
EDUC 555: Practicum with English Language Learners ........................... 3

(Note that ENGL 308 English Linguistics is also required for the ESOL minor; those hours are included above in the Language Emphasis instead of here in the minor)

(Prerequisites or co-requisites for EDUC 555 are EDUC 551, 552, 553, 554, and ENGL 308)
Bachelor of Science in Education Degree with a Major in English
The Bachelor of Science in Education degree with a major in English is designed primarily to train prospective English teachers. A student pursuing the degree will follow the program outlined below. A minor is not required.

Persons seeking the Bachelor of Science in Education degree should consult the appropriate sections of the University Catalog. For the specific regulations concerning admission to teacher education, see Admission to Teacher Education; for general education degree requirements for students preparing to teach secondary school, see General Education Requirements for Students Preparing to Teach Secondary School. Also see scholastic achievement requirements for admission to teacher education for secondary teaching majors, Scholastic Achievement in Common Core. Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburgh State University. See Admission to Professional Semester for professional education grade point requirements.

Requirements in English (49 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 199</td>
<td>Introduction to English Studies</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 202</td>
<td>English Grammar and Usage</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 220</td>
<td>World Masterpieces</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 230</td>
<td>American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 241</td>
<td>British Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 242</td>
<td>British Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 302</td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 304</td>
<td>Introduction to Writing About Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>English Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 478</td>
<td>Literature for Middle and Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 480</td>
<td>Internship</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 603</td>
<td>History of the English Language</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 619</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 699</td>
<td>Senior Seminar in English</td>
<td>1</td>
</tr>
</tbody>
</table>

- Electives in English* (12 hours)

English majors and minors counting ENGL 304 for general education credit must take additional upper division literature electives to meet total credit hour requirements.

ENGL 480 Internship requires concurrent enrollment in ENGL 478 Literature for Middle and Secondary Schools or ENGL 479 Techniques for Teaching English in Middle and Secondary Schools.

* Six credit hours must be selected from literature courses numbered above 500; at least three hours must be American.

See General Education Requirements for Students Preparing to Teach Secondary School for general education for the English teaching major.

The following courses must be completed before admission to teacher education (6 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 263</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 261</td>
<td>Explorations in Education</td>
<td>3</td>
</tr>
</tbody>
</table>

The following courses must be completed before admission to professional semester (13 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 307</td>
<td>Clinical Experience</td>
<td>1</td>
</tr>
<tr>
<td>PSYCH 357</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 479</td>
<td>Techniques for Teaching English in Middle and Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>SPED 510</td>
<td>Overview of Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 520</td>
<td>Methods and Materials for Academic Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>

See Admission to Professional Semester for professional education grade point requirements.

Must be admitted to Teacher Education to enroll in PSYCH 357 Educational Psychology, ENGL 479 Techniques for Teaching English in Middle and
Secondary Schools and EDUC 520 Methods and Materials for Academic Literacy.

**Professional Semester (17 hours)**
EDUC 458: Methods and Curriculum ........................................... 3
EDUC 462: Secondary and Middle Level Education .......................... 3
EDUC 464: Foundations of Measurement and Evaluation ................. 2
EDUC 480: Supervised Teaching in the Secondary School .................. 3
EDUC 482: Supervised Teaching in the Secondary School .................. 3
ENGL 579: Supervised Student Teaching and Follow-Up of Teachers ........ 2

**Minor in English**

**Standard Minor in English (21 hours)**
ENGL 202: English Grammar and Usage .................................... 3

**Writing electives selected from (6 hours)**
ENGL 301: Technical/Professional Writing .................................. 3
ENGL 302: Advanced Composition ............................................. 3
ENGL 304: Introduction to Writing About Literature ....................... 3

- English electives* (12 hours)

* Electives must include 6 hours of upper-division courses and at least 3 hours in American and 3 hours in British literature.

**Minor in Creative Writing**

**Creative Writing (21 hours)**
ENGL 230: American Literature ................................................. 3
ENGL 250: Introduction to Creative Writing .................................. 3
ENGL 346: The Craft of Poetry .................................................. 3
or ENGL 347: The Craft of Fiction ............................................. 3

- Creative Writing electives* (9 hours)
- Literature elective** (3 hours)

**Creative Writing Electives (select three)**
ENGL 346: The Craft of Poetry .................................................. 3
or ENGL 347: The Craft of Fiction ............................................. 3
ENGL 351: Fiction Writing ....................................................... 3
ENGL 352: Poetry Writing ....................................................... 3
ENGL 451: Advanced Fiction Writing ......................................... 3
ENGL 452: Advanced Poetry Writing ......................................... 3
ENGL 751: Senior Fiction Writing ............................................. 3
ENGL 752: Senior Poetry Writing ............................................. 3
ENGL 753: Multi-Genre Writing ................................................. 3

**Support Courses**
Select two courses from the following list

COMM 601: Intercultural Communication ................................... 3
CIS 130: Computer Information Systems ................................... 3
CIS 240: C++ Programming .................................................... 3
CIS 250: Principles of Software Design ..................................... 3
GIT 221: Web Graphics Software ............................................ 3
or COMM 537: Integrated Electronic Communication .................. 3
GIT 240: Page Layout Software ............................................... 3
GIT 241: Image Composition Software ..................................... 3
ENGL 505: Technical/Professional Writing Internship ..................... 1-3
PSYCH 463: Cognitive Processes .......................................................... 3

- Other support courses approved by the Director of Technical/Professional Writing (3-6 hours)

CIS 130 Computer Information Systems and CIS 240 C++ Programming will satisfy 3 hours of the producing and consuming category of the General Education requirement.

Minor in English (Teaching)
Second Teaching Option for Secondary or Middle Level Education Licensure (35 hours)

English (Teaching) (35 hours)
ENGL 202: English Grammar and Usage ......................... 3
ENGL 220: World Masterpieces ........................................... 3
ENGL 230: American Literature ........................................... 3
ENGL 241: British Literature I .............................................. 3
ENGL 242: British Literature II .............................................. 3
ENGL 302: Advanced Composition ...................................... 3
ENGL 304: Introduction to Writing About Literature ........................................... 3
ENGL 308: English Linguistics .............................................. 3
ENGL 478: Literature for Middle and Secondary Schools ........................................... 3
ENGL 479: Techniques for Teaching English in Middle and Secondary Schools ........................................... 3
ENGL 480: Internship .............................................................. 1
ENGL 603: History of the English Language ......................... 3
EDUC 307: Clinical Experience .............................................. 1
English majors and minors counting ENGL 304 for general education credit must take additional upper division literature electives to meet total credit hour requirements.

ENGL 480 Techniques Laboratory requires concurrent enrollment in ENGL 478 Literature for Middle and Secondary Schools or ENGL 479 Techniques for Teaching English in Middle and Secondary Schools.

Master of Arts Degree with a Major in English
The applicant for admission to study for the degree Master of Arts with a major in English shall present evidence of successful completion of at least 24 semester hours of undergraduate English above the freshman level, including survey courses in both English and American literature; one course in linguistics, modern grammar, or the history of the English language; and one upper division writing course. Students not presenting evidence of sufficient background in the above areas shall be required to complete one or more undergraduate courses as a condition of acceptance.

For regulations concerning the required placement and comprehensive examinations see the graduate advisor in English. For regulations which pertain to all candidates for the degree see Master’s Degree: General Regulations in this catalog.

Time Limit for Degree Completion
Students in the English Department Master of Arts program must finish their degrees within six years from the date they first enrolled as degree seeking students.

Validation of Courses
Credits earned more than six years before the date for granting the degree cannot be counted to meet degree requirements unless they are validated by special examination. Required courses more than six years old must be repeated unless they are validated. Examinations and grades for validated courses are given by the course instructor or departmental faculty and must be filed in the English Department Office. Courses are eligible for validation only if they have been taken within a ten year period from when the candidate's degree will be completed. Courses from other institutions may not be validated; therefore, transferred courses must be no more than six years old at the time the degree is granted.
Master of Arts Degree Programs

Literature Emphasis (Option I, II, III)* (36 hours)

ENGL 810: Research Methods .......................... 3  
ENGL 815: Writing for the Profession (____) ........... 3  
ENGL 820: Theory (____) ........................................... 3

- Four required literature courses** (12 hours)
- Electives*** (15 hours)

*Literature Emphasis requires two seminars; at least one must be literary; if a second literary seminar is selected, it must be from a different literary area (British Literature before 1789, British Literature after 1789, or American Literature).

**Selected from courses at the 500-800 levels in British Literature before 1789, British Literature after 1789, and American Literature. At least one course must be taken in each area. May include seminars, but not directed study, research problem, thesis, or internship.

***Selected from courses at the 500-800 levels; electives must be primarily literature courses; may include seminars, directed study, research problem, or thesis.

Composition and Rhetoric Emphasis  
(Option III)* (36 hours)

ENGL 716: Topics in Teaching Writing (____) ........... 1-3  
ENGL 757: Topics in English  ................................... 1-3  
ENGL 810: Research Methods  .................................. 3  
ENGL 815: Writing for the Profession (____) ......... 3  
ENGL 820: Theory (____) ........................................... 3  
ENGL 875: Seminar (____) ........................................... 3

- Four required literature courses** (12 hours)
- Two elective English courses numbered 500-800 (6 hours)

ENGL 820 Theory should be taken as Composition/Rhetoric.
ENGL 875 Seminar should be taken as Composition/Rhetoric or Professional/Technical.

*Composition and Rhetoric Emphasis requires two seminars; at least one must be literary; if a second literary seminar is selected, it must be from a different literary area (British Literature before 1789, British Literature after 1789, or American Literature).

**Selected from courses at the 500-800 levels in British Literature before 1789, British Literature after 1789, and American Literature. At least one course must be taken in each area. May include seminars, but not directed study, research problem, thesis, or internship.

Professional/Technical Writing Emphasis  
(Options I, II)* (36 hours)

- Three required literature courses** (9 hours)

ENGL 810: Research Methods  .................................. 3  
ENGL 815: Writing for the Profession (____) ........... 3  
ENGL 820: Theory (____) ........................................... 3  
ENGL 875: Seminar (____) ........................................... 3  
ENGL 890: Research and Thesis ................................ 3  
or ENGL 891: Research Problem ............................... 3  
ENGL 895: Professional/Technical Writing Internship .................................................. 3

Electives (select three)

ENGL 501: Document Design .................................. 3  
ENGL 503: Technical/Professional Editing ............... 3  
ENGL 704: Advanced Technical/Professional Writing .................................................. 3  
ENGL 756: Topics in Writing (____) .................. 1-3  
ENGL 890: Research and Thesis ............................. 3  
ENGL 891: Research Problem ............................... 3  
ENGL 895: Professional/Technical Writing Internship .................................................. 3  
ENGL 820 Theory should be taken as Professional/Technical or Composition/Rhetoric.
ENGL 875 Seminar should be taken as Professional/Technical or Composition/Rhetoric.

ENGL 501 Document Design and ENGL 503 Technical/Professional Editing are required of students without an undergraduate equivalent.
*Professional/Technical Writing Emphasis requires two seminars; at least one must be literary; if a second literary seminar is selected, it must be from a different literary area (British Literature before 1789, British Literature after 1789, and American Literature).

**Selected from courses at the 500-800 levels in British Literature before 1789, British Literature after 1789, and American Literature. At least one course must be taken in each area. May include seminars, but not directed study, research problem, thesis, or internship.

Creative Writing Emphasis (Option I)* (36 hours)

- Four required literature courses** (12 hours)

ENGL 810: Research Methods ........................................... 3
ENGL 815: Writing for the Profession (____) ...................... 3
ENGL 820: Theory (____) ................................................ 3
ENGL 850: Creative Writing Workshop (___) .................... 3
ENGL 890: Research and Thesis .................................... 3

Electives (select one or two)#

ENGL 716: Topics in Teaching Writing (____) ............1-3
ENGL 753: Multi-Genre Writing .................................3
ENGL 850: Creative Writing Workshop (___) .......... 3

*One seminar (ENGL 875) in literature is required for the Creative Writing emphasis.

**Selected from courses at the 500-800 levels in British Literature before 1789, British Literature after 1789, and American Literature. At least one course must be taken in each area. Creative writing students must take at least one contemporary literature course (approved by the Director of Graduate Studies), which may be either a literature elective or one of the required literature courses. May include seminars, but not directed study, research problem, thesis, or internship.

ENGL 850 Creative Writing Workshop: Six hours of workshop must be taken in the student's major genre. If ENGL 850 Creative Writing Workshop is chosen as an elective, it must be taken as a different genre then previously taken.

# Students completing a six-hour thesis will select one elective; students completing a three-hour thesis will select two electives.

ENGL 890 Research and Thesis: A three hour thesis will include creative work only; a six hour thesis will include creative work and a critical/theoretical introduction.

## Literature electives must be selected from courses at the 500-800 levels; may include seminars and directed study.

- Literature elective(s)## (3-6 hours)
- English elective (3 hours)

Specialist in Education: English

The degree of Specialist in Education with English as the major teaching field for community college teachers is offered by the Department of Teaching and Leadership in cooperation with the Department of English.

Applicants for this program should consult the graduate advisor in the English Department to plan a course of study. The programs are flexible enough to enable all candidates to obtain the maximum strengthening in the subject matter of their teaching fields.

Applicants for admission to study for the degree Specialist in Education who hold a master's degree in English shall be considered to have passed their preliminary examination. If candidates are admitted who hold the master's degree in another discipline, they shall, within their first enrollment, complete satisfactorily a preliminary examination based on a reading list. For general admission requirements, see the appropriate section of the catalog.
Family and Consumer Sciences

Chairperson: Duane A. Whitbeck
Professor(s): Lynette J. Olson*, Duane A. Whitbeck*
Associate Professor(s): Denise Bertoncino*, Carol Werhan*
Assistant Professor(s): Holly Page-Sagehorn, Amber Tankersley*
Instructors: Kari Cronister (Preschool Supervising Teacher), Cristine Elliott*, Arnab Majumdar

*Graduate Faculty

Room 101 Family & Consumer Sciences Building
Telephone: 620-235-4457
Fax: 620-235-4686
http://www.pittstate.edu/department/family/
E-mail: dwhitbec@pittstate.edu

Undergraduate

Bachelor of Science in Education Degree with a Major in Family and Consumer Sciences Education
Bachelor of Science in Education Degree with a Major in Early Childhood Unified (ECU): Birth through Third Grade Licensure
Bachelor of Science Degree with a Major in Family and Consumer Sciences

Undergraduate Minors

Minor in Family and Consumer Sciences
Minor in Early Childhood Development
Minor in Fashion Merchandising
Minor in Human Ecology
Minor in Interior Design
Minor in Youth and Adolescence

The Department of Family and Consumer Sciences provides programs that prepare educators in family and consumer sciences and professionals in the areas of early childhood development, fashion merchandising, individual and family management, and interior design. These programs as well as other course offerings reflect the department mission "to provide educational programs and experiences that develop professional

and life skills that help people function more effectively in their daily living and working environments".

Facilities and Resources

The Family and Consumer Sciences department operates the PSU Early Childhood Preschool Laboratory where all early childhood development and education students apply the knowledge and skills they gain in classes to real environments. The department also houses the FCS Historic Clothing collection which includes over 120 items representing clothing from 1870 to the present.

Bachelor of Science in Education Degree with a Major in Family and Consumer Sciences Education

The Department of Family and Consumer Sciences offers a curriculum designed to prepare the student to obtain teacher licensure in the area of Family and Consumer Sciences Education, grades 6-12. Students completing this curriculum are not required to complete a minor field; however, they may consider a second concentration in an area such as health or a variety of minors in education. Students may take additional course work in any of the areas of FCS. A professional development school option is available for the students desiring to graduate with additional field experience and PDS recognition from the Department of Family and Consumer Sciences. Recent graduates with this major can be found in these challenging positions: teaching secondary schools, food services, school counseling, social services, community services, family and consumer sciences extension work and graduate studies.

Professional Development School Opportunity

Beyond FCS course requirements for teacher education, students may choose to participate in the professional development school opportunity. These students will have the advantage of working in a professional laboratory experience through cooperative arrangements with area public schools. Supervised laboratory experiences will include observation in FACS
classrooms, teacher assistance and classroom teaching experiences.

Field experience in a cooperative high school setting will include observation of FCS classes, interviews with school administration, and other activities that will prepare students for a teaching career.

Additional field experience in a cooperative high school will include working with a FCS teacher to gain experience in the classroom. Students will spend a minimum of five hours per week in the school setting. Participation in this will satisfy FCS 570 Professional Internship (____).

General Education Degree Requirements* (43-51 hours)

Basic Skills (12-13 hours)

General Education Electives (31-38 hours)

Sciences (8-9 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming# (2-3 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well Being@ (4-6 hours)

Human Heritage (6 hours)

#Three hours of general education producing and consuming are satisfied by the required course FCS 230 Consumer Education and Personal Finance.

* See General Education Requirements for Students Preparing to Teach Secondary School.

@ Counts as both General Education and major requirement: FCS 203 Nutrition and Health and FCS 301 Nutrition.

NOTE: Students are required to complete Writing to Learn courses. See Writing to Learn Requirement.

Family and Consumer Sciences Course Requirements (38 hours)

FCS 100: Career Management in Family and Consumer Sciences .................................................. 1-2
FCS 110: Introduction to Interior Design ......................... 3
FCS 150: Introduction to Merchandising ......................... 3
FCS 230: Consumer Education and Personal Finance ................................................................. 3
FCS 301: Nutrition ......................................................... 3
or FCS 203: Nutrition and Health .................................. 3
FCS 355: Construction Techniques .............................. 3
FCS 401: Food Science and Preparation Techniques ......................................................... 3
FCS 409: Demonstration Techniques and Instructional Technology .............................................. 3
FCS 430: Family Resource Management ........................ 3
FCS 479: Techniques for Teaching Vocational Family and Consumer Sciences .......................... 3
FCS 480: Dynamics of Family Relationships ................. 3
FCS 572: Senior Seminar in Family and Consumer Sciences ................................................. 3
FCS 590: Development of the Child: Birth Through Age Eight .................................................. 3
FCS 690: Parent/Professional Relationships .................. 3

Must be admitted to Teacher Education for enrollment in FCS 479.

Sophomore Year: Admission to Teacher Education

Junior Year: Admission to Professional Semester

Professional Course Requirements** (21 hours)

EDUC 261: Explorations in Education ............................ 3
EDUC 520: Methods and Materials for Academic Literacy ........................................................... 3
FCS 429: Career and Technical Education in the FACS Curriculum .................................................. 3
PSYCH 263: Developmental Psychology ......................... 3
PSYCH 357: Educational Psychology ............................ 3
SPED 510: Overview of Special Education ..................... 3
TTED 694: Principles of Vocational Education ................ 3
**See grade point requirements for professional education courses for Admission to Professional Semester.**

Consumer and Homemaking Certification is achieved through TTED 694

Must be admitted to Teacher Education for enrollment in these classes: EDUC 520 and PSYCH 357.

**Professional Semester (17 hours)**
EDUC 458: Methods and Curriculum .................................3
EDUC 462: Secondary and Middle Level Education .................................2
EDUC 464: Foundations of Measurement and Evaluation ....................................................2
EDUC 480: Supervised Teaching in the Secondary School ....................................................3
EDUC 482: Supervised Teaching in the Secondary School ....................................................5
FCS 579: Supervised Student Teaching and Follow-Up of Teachers .................................2

- Electives (0-5 hours)

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

Total hours for Bachelor of Science in Education Degree with a Major in Family and Consumer Sciences (124-127 hours).

**Bachelor of Science in Education Degree with a Major in Early Childhood Unified (ECU): Birth through Third Grade Licensure**

The Bachelor of Science in Education, Early Childhood Unified (ECU)-Birth Through Third Grade Licensure program, is an inter-disciplinary undergraduate major offered by the Departments of Teaching and Leadership and Family and Consumer Sciences. The ECU degree prepares participants for working/teaching in infant-toddler programs, preschool programs, and primary grades in public schools. It leads to eligibility for teaching licensure from the Kansas State Department of Education for both general and special education birth through grade three. Students in this program must meet all requirements of Teacher Education programs. See the Department of Teaching and Leadership (Bachelor of Science in Education- Early Childhood Unified (ECU) Birth through Third Grade) for complete information, curriculum, and Teacher Education requirements.

**Bachelor of Science Degree with a Major in Family and Consumer Sciences**

This major is designed as preparation for the many family and consumer sciences positions requiring special emphasis in a subject area. The student must complete 14 hours of core requirements plus hours specified for the chosen option. The Bachelor of Science degree with a major in family and consumer sciences requires a minimum of 124 semester hours. This includes selection of a minor outside the department.

*General Education Degree Requirements* (43-51 hours)

Basic Skills (12-13 hours)

General Education Electives (31-38 hours)

- Sciences (8-9 hours)
- Social Studies (3 hours)
- Political Studies (3 hours)
- Producing and Consuming** (2-3 hours)
- Fine Arts and Aesthetic Studies (2-3 hours)
- Cultural Studies (3-5 hours)
- Health and Well Being*** (4-6 hours)
- Human Heritage (6 hours)
* See General Education Requirements for All Baccalaureate Degrees specific general education degree requirements.

NOTE: Students are required to complete Writing to Learn courses. See Writing to Learn Requirement for specific requirements.

**Three hours of general education Producing and Consuming are met by the required course FCS 230 Consumer Education and Personal Finance.

***Three hours of general education Health and Well Being are met by the required course FCS 203 Nutrition and Health.

Core Requirements (14 hours)
FCS 100: Career Management in Family and Consumer Sciences ..............................................1-2
FCS 203: Nutrition and Health .............................................3
FCS 230: Consumer Education and Personal Finance ................................................................3
FCS 470: Professional and Social Skills .....................................3
FCS 480: Dynamics of Family Relationships .............................3
FCS 572: Senior Seminar in Family and Consumer Sciences ................................................................1

Early Childhood Development Option (49-54 hours)

Option Requirements (23-28 hours)
EDUC 440: Early Childhood Program Organization and Management ........................................3
FCS 285: Lifespan Human Development ..................................3
FCS 390: Interacting with Children .........................................3
FCS 391: Practicum in Early Childhood ....................................1
FCS 490: Developmental Planning: Preschool and Kindergarten ................................................................3
FCS 491: Preschool Laboratory ..............................................1-2
FCS 570: Professional Internship (___) ....................................2-4
or FCS 591: Supervised Teaching in the Early Childhood Lab ....................................................................5
FCS 571: Directed Readings in Family and Consumer Sciences ................................................................1-3
or FCS 771: Directed Readings in Family and Consumer Sciences ................................................................1-3

FCS 590: Development of the Child: Birth Through Age Eight ..........................................................3
HHP 260: First Aid and CPR ..................................................2

No credit will be given for outside certification for HHP 260 or if currently certified.

Students must receive special permission to select FCS 570.

Restricted Electives (select 12 hours)
MUSIC 140: Children's Music ..................................................3
EDUC 322: Early Literacy and Language Development ..........................................................2
and EDUC 323: Literature for Young Children Birth-3rd .............................................1
FCS 392: Infant and Toddler Development ................................3
FCS 430: Family Resource Management ................................3
HHP 466: Motor Development ................................................3
FCS 580: Family Violence and Child Abuse ................................3
or FCS 780: Family Violence and Child Abuse ........................3
FCS 690: Parent/Professional Relationships ............................3

Recommended Minors: Accounting, Art, Business Administration, Music, Recreation, Sociology, Psychology, and Special Education for Family and Consumer Sciences.

Potential Careers: Child care center director, social services, preschool teacher, child care provider, licensing specialist, county extension and college instructor.

Career information found at: http://www.pittstate.edu/department/family/students/career-planning/

Fashion Merchandising Option (52-54 hours)

Option Requirements (32-34 hours)
FCS 150: Introduction to Merchandising ...............................3
FCS 154: Dress and Culture ..................................................3
FCS 285: Lifespan Human Development ................................3
FCS 351: Apparel Evaluation ..................................................3
FCS 352: The Fashion Industry .............................................. 3
FCS 355: Construction Techniques ........................................... 3
FCS 356: Textiles ....................................................................... 3
FCS 440: Visual Merchandising .................................................. 3
FCS 452: Fashion Buying and Merchandising ............................. 3
FCS 455: History of Costume ..................................................... 3
FCS 570: Professional Internship (____).......................................2-4

**Restricted Electives (select 6 hours)**

ART 188: The Designed World ................................................. 3
ART 222: Jewelry Design I ......................................................... 3
ART 233: Drawing I .................................................................... 3
ART 288: Western Art History I ................................................. 3
ART 289: Western Art History II ............................................... 3
ART 688: History of Modern Art ................................................ 3
ART 689: Contemporary Issues in Art ...................................... 3
COMM 200: Introduction to Mass Communication ..........................3
COMM 230: Principles of Advertising ....................................... 3
COMM 277: Introduction to Public Relations ............................. 3
ENGL 301: Technical/Professional Writing .................................. 3
FCS 740: Special Topics: (____) ........................................... 1-4
GIT 230: Graphic Design ......................................................... 3
GIT 241: Image Composition Software .................................... 3
GIT 310: Photography ............................................................... 3
MGMKT 327: Organizational Theory and Behavior ...................... 3
MGMKT 330: Basic Marketing ....................................................3

FCS 740 Special Topics: Intensive study in special areas of the fashion industry including, but not limited to, study tours to fashion centers in the U.S. and abroad.

Recommended Minors: Business Administration, Women’s Studies, Marketing, Communication, Art, Psychology, Foreign Language, or Industrial Management and Supervision, Graphic Design or Human Resources.

Potential Careers: Fashion coordinator, fashion editor, buyer, merchandise or sales manager and visual merchandiser.

Career information found at: [http://www.pittstate.edu/department/family/students/career-planning/](http://www.pittstate.edu/department/family/students/career-planning/)

**Individual and Family Management Option (40-42 hours)**

**Individual and Family Management (8-10 hours)**

FCS 270: Practicum in Family and Consumer Sciences (____) ................................................................. 1
FCS 285: Lifespan Human Development .................................. 3
FCS 430: Family Resource Management .................................. 3
FCS 571: Directed Readings in Family and Consumer Sciences ......................................................... 1-3

**Restricted Electives (18 hours)**

- Any six courses in the Family and Consumer Sciences area as approved by your advisor (nine credit hours must be 300 or above) (18 hours)

Recommended Minors: Communication, Psychology, Recreation, Business Administration, Marketing, Sociology, Human Resources.

Career information found at: [http://www.pittstate.edu/department/family/students/career-planning/](http://www.pittstate.edu/department/family/students/career-planning/)

**Interior Design Option (58-60 hours)**

**Option Requirements (44-46 hours)**

FCS 110: Introduction to Interior Design ................................. 3
FCS 120: Communication Graphics for Interior Design ..................3
FCS 285: Lifespan Human Development .................................. 3
FCS 312: History of Design I ..................................................... 3
FCS 313: History of Design II: 1900-Present .............................. 3
FCS 315: Interior Design: Studio I ............................................. 3
FCS 316: FCS Lighting ...............................................................3
or FCS 214: Space Planning and Programming .......................... 3
FCS 323: Interior Design Materials and Resources ..................... 3
FCS 325: Interior Design: Studio II .......................................... 3
FCS 326: CADD for Interior Design .......................................... 3
FCS 356: Textiles ...................................................................... 3
FCS 411: Professional Practices for Interior Design .......................................................... 3
FCS 420: Interior Design: Studio III .......................................................... 3
FCS 422: Interior Design: Studio IV .......................................................... 3
FCS 570: Professional Internship (____) ........................................... 2-4

Track I: Construction Technology Minor* for Interior Design Option (20 hours)
CMCET 133: Construction Graphics ........................................ 3
CMCET 234: The Construction Industry ........................................ 3
CMCET 235: Methods of Construction-Light Frame and Finishes ................................ 2
CMCET 330: Mechanical Systems (HVAC) ........................................ 3
CMCET 331: Electrical Systems ..................................................... 3
CMCET 332: Residential Design ..................................................... 3
or WT 682: Residential Construction Software: Planning and Management .................. 3

Approved elective selected from one of the following
GIT 240: Page Layout Software ........................................ 3
GIT 241: Image Composition Software ........................................ 3
WT 301: Finishing ................................................................. 3
WT 523: Computer Applications in Cabinetmaking .................................................. 3
WT 691: Furniture Design and Development ........................................ 3

A grade below "C" represents work of insufficient quality, not adequate to pursue subsequent courses. For this reason, a student making a "D" or "F" grade in a required course will not be permitted to continue in the Family and Consumer Sciences Interior Design Option. If it can be demonstrated that the "D" or "F" grade is the result of a temporary problem which has been corrected, the student may be readmitted with the approval of faculty. The below “C” grade in Interior Design is intended for option requirements only, not major core.

Recommended Minors: For students whose career goal is to become a licensed interior designer, it is highly recommended that you follow Track I to be eligible to take the National Council for Interior Design Qualifications Exam. For students primarily interested in acquiring an interior design background, Track II is recommended.

Career information found at: http://www.pittstate.edu/department/family/students/career-planning/

Potential Careers for Track I: Residential or contract interior design, research and development for interior design, manufacturers sales representative, showroom sales representatives, furniture design, craftsman, facilities management, facilities planning and interiors construction management.

Track II: Alternative Minors: Accounting, Art, Business Administration, Communication, Graphic Design, Marketing, Photography and Psychology.

Potential Careers for Track II: Residential interior design, design or color consulting, specialty shop management, furnishings retailing, photography and print.

Students may elect to double in FCS Interior Design and Construction Management.

*By agreement with the School of Construction, these 20 hours will satisfy the construction technology minor for this interior design option.

Interior Merchandising Option (58-60 hours)

Option Requirements (44-46 hours)
FCS 110: Introduction to Interior Design ....................... 3
FCS 120: Communication Graphics for Interior Design ............................................. 3
FCS 214: Space Planning and Programming .................. 3
FCS 285: Lifespan Human Development ...................... 3
FCS 313: History of Design II: 1900-Present .................. 3
FCS 315: Interior Design: Studio I ................................. 3
FCS 323: Interior Design Materials and Resources ........ 3
FCS 325: Interior Design: Studio II ................................. 3
FCS 352: The Fashion Industry ........................................ 3
FCS 356: Textiles ............................................................... 3
FCS 440: Visual Merchandising ....................................... 3
FCS 570: Professional Internship (____) ....................... 2-4
MGMKT 327: Organizational Theory and Behavior ................................................................. 3
MGMKT 330: Basic Marketing ................................................................. 3
MGMKT 430: Consumer Behavior ................................................................. 3

Minor in Family and Consumer Sciences
A minor in family and consumer sciences shall consist of at least twenty-one semester hours approved by the Department of Family and Consumer Sciences. These hours may be chosen by the student to meet her or his particular needs. A minimum of nine hours must be numbered 300 or above. The minor will not meet the requirements for state certification for teaching family and consumer sciences.

Minor in Early Childhood Development

Early Childhood Development (10 hours)
FCS 285: Lifespan Human Development ....................... 3
FCS 390: Interacting with Children ................................ 3
FCS 391: Practicum in Early Childhood .......................... 1
FCS 590: Development of the Child: Birth Through Age Eight .................................. 3

Restricted Electives (Students must choose at least four courses) (11-12 hours)
EDUC 322: Early Literacy and Language Development ....................................................... 2
and EDUC 323: Literature for Young Children Birth-3rd ...................................................... 1
FCS 480: Dynamics of Family Relationships ......................... 3
FCS 490: Developmental Planning: Preschool and Kindergarten ...................................... 3
FCS 491: Preschool Laboratory .................................................. 1-2
FCS 580: Family Violence and Child Abuse ............................................................ 3
or FCS 780: Family Violence and Child Abuse ............................................................ 3
FCS 690: Parent/Professional Relationships ............................................................ 3

Minor in Fashion Merchandising

Fashion Merchandising (15 hours)
FCS 150: Introduction to Merchandising .................................................... 3
FCS 351: Apparel Evaluation ................................................................. 3
FCS 352: The Fashion Industry ................................................................. 3

FCS 356: Textiles ................................................................. 3
FCS 452: Fashion Buying and Merchandising .................................................... 3

Select two of the following courses (6 hours)
FCS 154: Dress and Culture ................................................................. 3
FCS 355: Construction Techniques ............................................................. 3
FCS 455: History of Costume ................................................................. 3

Minor in Human Ecology

Human Ecology (21 hours)
FCS 230: Consumer Education and Personal Finance ............................................................. 3
FCS 285: Lifespan Human Development ............................................................. 3
FCS 430: Family Resource Management ............................................................. 3
FCS 480: Dynamics of Family Relationships ............................................................. 3

• Electives (credit hours chosen from departmental courses in consultation with minor advisor) (9 hours)

Minor in Interior Design

Interior Design (21 hours)
FCS 110: Introduction to Interior Design ............................................................. 3
FCS 120: Communication Graphics for Interior Design ............................................................. 3
FCS 312: History of Design I ................................................................. 3
or FCS 313: History of Design II: 1900-Present ............................................................. 3
FCS 315: Interior Design: Studio I ................................................................. 3
FCS 323: Interior Design Materials and Resources ............................................................. 3
FCS 356: Textiles ................................................................. 3
CMCET 133: Construction Graphics ............................................................. 3

Minor in Youth and Adolescence

Youth and Adolescence (7-9 hours)
FCS 285: Lifespan Human Development ............................................................. 3
or PSYCH 263: Developmental Psychology ............................................................. 3
FCS 571: Directed Readings in Family and Consumer Sciences ........................................ 1-3
or FCS 771: Directed Readings in Family and Consumer Sciences ........................................ 1-3
FCS 592: Study of Youth and Adolescence ............................................................. 3
Restricted Electives (Select five courses)

(14-15 hours)

MIL 100: Military Science I ................................................. 1
and MIL 102: Military Science I ............................................. 1
and MIL 103: Military Science I Laboratory ...................... 1
SOC 220: Social Problems ..................................................... 3
PSYCH 275: Psychology of Adjustment .............................. 3
FCS 340: Topics in (____) ...................................................... 1-6
or FCS 740: Special Topics: (____) .................................... 1-4
SWK 340: Social Work with Families and Children ............ 3
FCS 390: Interacting with Children ...................................... 3
SOC 440: Personality and Social Structure ...................... 3
SOC 536: The Family and Society ......................................... 3
SOC 548: Juvenile Delinquency ........................................... 3
FCS 570: Professional Internship (____) ............................ 2-4
FCS 580: Family Violence and Child Abuse ...................... 3
or FCS 780: Family Violence and Child Abuse .................... 3
PSYCH 616: Introduction to Group Processes ..................... 3
FCS 690: Parent/Professional Relationships ...................... 3
History, Philosophy, and Social Sciences

Chairperson: Michael A. Kelley
Assistant Professor(s): Kristen Humphrey, Roy Janisch*, Aesha John, Kirstin L. Lawson*, James McBain, Mark J. Peterson*
Instructors: Michelle Barnaby, Daniel Betti, Patty Magee, Randy E. Roberts (Associate Professor of Library Science), Gary Wilson

*Graduate Faculty
**University Professor

Room History-406 Russ; Philosophy and Social Sciences-412 Russ
Telephone: History:620-235-4312; Philosophy and Social Sciences: 620-235-4325
Fax: History:620-235-4511; Philosophy and Social Sciences: 620-235-4338
http://www.pittstate.edu/department/social_science/
E-mail: mkelley@pittstate.edu

Undergraduate

Bachelor of Science Degree with a Major in Geography
Bachelor of Arts Degree with a Major in History
Bachelor of Science in Education Degree with a Major in History/Government
Bachelor of Science Degree with a Major in Justice Studies
Bachelor of Science Degree with a Major in Justice Studies: Criminal Justice Emphasis
Bachelor of Arts Degree with a Major in Political Science
Bachelor of Arts Degree with a Major in Political Science: Pre-Law Emphasis
Bachelor of Science Degree with a Major in Social Work
Bachelor of Science Degree with a Major in Sociology
Bachelor of Science Degree with a Major in Sociology: Criminology Emphasis
Bachelor of Science Degree with a Major in Sociology: Diversity Studies Emphasis

Undergraduate Minors
Minor in Fraud Examination
Minor in Geography
Minor in History (Non-Teaching)
Minor in Justice Studies
Minor in Multicultural Studies
Minor in Philosophy
Minor in Political Science
Minor in Psychology for Justice Studies Majors
Minor in Sociology

Graduate

Master of Arts Degree with a Major in History

BACCALAUREATE DEGREES

The Department of History, Philosophy, and Social Sciences offers work leading to the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Education, with a major in History/Government.

Bachelor of Arts

Typically, the Bachelor of Arts degree is for students seeking a liberal arts foundation to support professional education and careers in law or business or advanced degrees in their respective disciplines.

Bachelor of Science

The Bachelor of Science is for students who intend to pursue a career immediately upon graduation, utilizing their discipline specific skill sets and knowledge base or to pursue advanced education or licensure in a specific field of study.
Bachelor of Science in Education with a major in History/Government

Students interested in a secondary education career teaching history and government, along with other social sciences, generally elect the BSE degree. BSE students should consult the History section of the department listing for a more complete description of the degree program and also become familiar with the sections of the catalog governing admission to teacher education, required courses, and the professional semester.

Undergraduate Majors and Assessment

Consistent with university policy and a departmental commitment to a process of continuing self-examination and improvement, the Department of History, Philosophy, and Social Sciences requires that all of its majors participate in disciplinary specific outcomes assessment. The assessment of individual student learning outcomes is completed by the end of the senior year. Programs employ a variety of instruments to evaluate learning outcomes.

Undergraduate Minors

The Department of History, Philosophy, and Social Sciences offers a variety of minors allowing students to explore areas of academic or vocational interest and develop discipline based skill sets and knowledge, as well as interdisciplinary minors. The specific requirements for the minors are located under each program’s description.

Department Honors

The department participates in the university-wide department honors program. Honors programs exist in the fields of geography, history, justice studies, political science, social work, and sociology. Requirements for the honors program are summarized below and in the general description of the university honors program. The Departmental Academic Honors Program is designed to challenge students with superior academic abilities. The program provides an opportunity to develop a deeper understanding of an academic area through independent study and close faculty-student association. Students who complete the requirements outlined below graduate with the distinction "With Departmental Academic Honors" noted on their transcript.

Departmental Academic Honors are awarded to students who:

a. Maintain a cumulative 3.50 GPA.

b. Complete a minimum of nine semester hours of credit designated as taken for honors in the student’s major department. (Must be at least two courses).

c. The student and instructor will develop a statement that will define the work to be completed beyond that normally associated with the class.

d. Students are limited to one honors course per semester or summer session.

e. No project/paper shall be accepted for honors with less than a grade of B.

f. Students must elect to take a course for honors within the first one-fourth of the length of the course.

g. All incompletes must be finished no later than four weeks after the completion of the semester they are given. Students are not allowed to submit an application for another Departmental Honors Project until any previous incomplete has been finished.

Any exceptions to the above guidelines, must be approved by the Honors Committee of the Pittsburg State University Faculty Senate.

Department Scholarships

Thanks to the generosity of past graduates and those interested in history, philosophy, and social sciences, the department is able to offer a number of scholarships for its various academic programs. Consistent with donor criteria, the faculty in philosophy and social sciences award scholarships with the following conditions: (1) the student must have completed a minimum of one semester as a full-time student at PSU prior to applying; and (2) the student must enroll and remain enrolled as a full-time major in one of the social sciences programs.
In general, students interested in applying for a department scholarship should contact Financial Assistance, 103 Horace Mann, 620-235-4240 (Toll Free: 1-800-854-PITT), or http://www.pittstate.edu/office/financial_aid/ to access the universal application form. (Hint: at the Financial Assistance website, click on “Scholarships” and look for departmental scholarships and follow the instructions as you surf through the website.)

Graduate Degrees

History offers students the opportunity to expand on their knowledge and appreciation of the past through a Master of Arts degree. (See the history section of the department’s catalog listing for a description of the purpose and degree requirements).

Bachelor of Science Degree with a Major in Geography

Professors: Timothy J. Bailey, Catherine A. Hooey
Associate Professor: Hyun Joong Kim
Instructor: Michele Barnaby

Geography is a spatial science that explores the interactions between the human and environmental dimensions of our ever-changing world. The Bachelor of Science degree with a major in geography provides students with a foundation in geographic knowledge, spatial theory and applied analytical skills, providing a solid background for students in pursuit of careers in a variety of fields and for those who wish to pursue graduate work.

The program focuses on those elements of geography that are most critical in today's society: environmental geography, which concentrates on the interaction of people and the environment; urban planning, an applied science that involves decision-making about city growth; community development, which focuses on locally-driven social and economic development; Geographic Information Systems (GIS), a computer-based technological application that combines data management and modeling with the explanatory powers of maps and digital display. Students who demonstrate competency in GIS upon completion of the introductory level GIS course may apply to participate in a paid internship program.

Geography majors choose a variety of minors depending on their interests. Minors in political science, economics, history, business or a modern language are common.

The geography major requires a total of 38 hours distributed as follows:

I. Required Courses (32 hours)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 106</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 301</td>
<td>Introduction to Urban Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 302</td>
<td>Introduction to Environmental Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 303</td>
<td>Geographic Information Systems I</td>
<td>3</td>
</tr>
<tr>
<td>SOSCI 388</td>
<td>Social Research Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 401</td>
<td>Urban and Regional Planning</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 502</td>
<td>Global Environmental Change</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 507</td>
<td>Geography of the Global Economy</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 508</td>
<td>Geography of Hazards and Disasters</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 601</td>
<td>Senior Seminar in Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

II. Geography electives from courses numbered 300-799 (6 hours)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 300</td>
<td>Elements of Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 304</td>
<td>Human Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 305</td>
<td>Cartography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 307</td>
<td>East Asia: China, Japan, and Korea</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 395</td>
<td>Topics in Geography (___)</td>
<td>1-3</td>
</tr>
<tr>
<td>GEOG 403</td>
<td>Geographic Information Systems II</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 594</td>
<td>Directed Readings in Geography</td>
<td>1-3</td>
</tr>
<tr>
<td>GEOG 596</td>
<td>Individual Study in Geography</td>
<td>1-3</td>
</tr>
<tr>
<td>GEOG 600</td>
<td>Internship in Geography</td>
<td>1-4</td>
</tr>
<tr>
<td>GEOG 602</td>
<td>Internship in GIS and Environmental Geography</td>
<td>1-4</td>
</tr>
<tr>
<td>GEOG 603</td>
<td>Internship in GIS and Urban Geography</td>
<td>1-4</td>
</tr>
<tr>
<td>GEOG 795</td>
<td>Seminar: Special Topics in Geography (___)</td>
<td>1-3</td>
</tr>
</tbody>
</table>
Minor in Geography

A minor in geography requires the following (21 hours)
GEOG 106: World Regional Geography .................. 3
GEOG 300: Elements of Geography ....................... 3
GEOG 301: Introduction to Urban Geography ............. 3
GEOG 302: Introduction to Environmental Geography ...................................................... 3

- Geography electives from courses numbered 300-799 (9 hours)

Bachelor of Arts Degree with a Major in History
Professors: James B.M. Schick, Kelly A. Woestman, Assistant Chairperson
Associate Professors: John L.S. Daley, Jonathan R. Dresner, Stephen A. Harmon, Judith G. Shaw
Assistant Professor: Kirstin L. Lawson
Instructor: Randy E. Roberts (Associate Professor of Library Studies)

This degree program is designed to provide students with a solid and varied experience in history, suitable for a liberal arts education as well as an adequate preparation for advanced professional study, in law for example. The requirements for the BA degree follow.

The student seeking a Bachelor of Arts degree in History must meet the requirements for a major in history as shown below, complete a minor from the list of approved minor fields in the general statement on this degree elsewhere in this catalog, and fulfill the university’s general education requirements. All candidates for this degree should consult the appropriate sections of this catalog for the general requirements for the degree.

A BA in history shall consist of at least 37 semester hours including 12 in American History, 12 in World History, 3 in HIST 430 History: Theory and Practice, 1 in HIST 699 Senior Assessment, and nine elective hours in history. A minimum of 25 hours shall be in courses numbered 300-799.

I. General Education Requirements (50-55 hours)
Some general education courses may apply toward major or minor requirements listed below.

II. Major (History) Requirements (25 hours must be upper division) (37 hours)*

American History (12 hours)
Recommended:
HIST 201: American History to 1865 ....................... 3
HIST 202: American History from 1865 ..................... 3

World History (12 hours)
Recommended:
HIST 101: World History to 1500 ............................ 3
HIST 102: World History from 1500 ........................ 3
HIST 430: History: Theory and Practice .................. 3
HIST 699: Senior Assessment ................................. 1

- History electives (9 hours)

* Three of these hours can be met by General Education requirement.

III. Minor Field Requirements (20-27 hours)
An appropriate minor field will be selected from the following disciplines:

art, biology, business administration, chemistry, communication, computing, multicultural studies, economics, English, family and consumer sciences, geography, international studies, mathematics, military science, modern language and literatures, music, philosophy, physics, political science, psychology, and sociology.

IV. Electives sufficient to total a minimum of 124 hours
4-17 hours of electives based on hours taken to complete general education and minor areas.
NOTE: It is easily possible for a BA candidate to select and accomplish a double major by meeting appropriate requirements instead of filling his program with free electives.

Bachelor of Science in Education Degree with a Major in History/Government

Professors: James B.M. Schick, Kelly A. Woestman, Assistant Chairperson
Associate Professors: John L.S. Daley, Jonathan R. Dresner, Stephen A. Harmon, Judith G. Shaw
Assistant Professor: Kirstin L. Lawson
Instructor: Randy E. Roberts (Associate Professor of Library Science)

To conform to current Kansas State Department of Education guidelines, the student seeking a Bachelor of Science in Education degree in the Department of History, Philosophy and Social Sciences must complete the requirements for History/Government licensure as shown below. Alternatives to HIST 540 English History to 1660, HIST 546 The Age of Empire, HIST 605 Africa and the Middle East, HIST 656 Sectional Conflict and Civil War and HIST 665 Modern America since 1968, as listed in Section II, may be taken. This degree meets current Kansas requirements for the licensure of secondary school teachers in world history, American history, political science, geography, sociology, and economics. All students seeking this degree should consult the appropriate sections of this catalog for the general requirements for the degree and for the specific regulations governing admission to teacher education, required courses, and the professional semester. The major includes 60 hours of history, social science courses and an economics course. It does not require a minor.

I. General education degree requirements for secondary students preparing to teach (31-36 hours)

Some general education courses are met by major or certification requirements listed below.

II. History/Government Requirements (60 hours)

History (36 hours)

HIST 101: World History to 1500 ........................................ 3
HIST 102: World History from 1500 ............................. 3
HIST 201: American History to 1865 ............................ 3
HIST 202: American History from 1865 .......................... 3
HIST 430: History: Theory and Practice ....................... 3
HIST 619: Kansas and the West ..................................... 3

One from the following:

HIST 650: Colonial America ........................................ 3
or HIST 652: American Revolution .............................. 3
or HIST 655: Early American Republic, 1789-1848 ........ 3

One from the following:

HIST 620: History of the South ..................................... 3
or HIST 656: Sectional Conflict and Civil War ............... 3
or HIST 657: Reconstruction and New South ................. 3
or HIST 660: Industrial America, 1865-1914 ................. 3

One from the following:

HIST 515: World War I .................................................. 3
or HIST 518: Hitler and Nazi Germany ......................... 3
or HIST 520: World War II ........................................... 3
or HIST 522: Korean and Vietnam Wars ....................... 3
or HIST 535: Medieval Civilization ............................... 3
or HIST 540: English History to 1660 ........................... 3
or HIST 545: English History since 1660 ...................... 3
or HIST 546: The Age of Empire ................................... 3
or HIST 548: The French Revolution and Napoleon ........ 3
or HIST 610: Modern Europe, 1500 to 1815 ................. 3
or HIST 644: The Tudor Age ......................................... 3
or HIST 645: Stuart England ......................................... 3

One from the following:

HIST 505: African Civilizations ................................... 3
or HIST 505: African Civilizations ............................... 3
or HIST 507: Modern Africa ........................................ 3
or HIST 510: Modern Middle East ............................... 3
or HIST 547: Radical Islam .......................................... 3
or HIST 605: Africa and the Middle East ...................... 3
or HIST 626: U.S. Iraq and Afghanistan ....................... 3

One from the following:

HIST 625: Mexico and the US Southwest .................... 3
or HIST 662: Modern America, 1912-1941 ............... 3
or HIST 664: Modern America, 1941-1968 ............... 3
or HIST 665: Modern America Since 1968 ............... 3
or HIST 668: U.S. as a Superpower ....................... 3

One from the following:
HIST 523: Early China .................................................. 3
or HIST 524: Early Japan .................................................. 3
or HIST 526: Japan Since 1700 ....................................... 3
or HIST 527: China Since 1700 ....................................... 3
or HIST 529: History of South Asia ................................... 3
or HIST 531: Samurai: History, Literature, Myth .............. 3
or HIST 532: History of Japanese Women ...................... 3
or HIST 533: US-East Asia Relations ......................... 3
or HIST 534: Korea Since 1700 ....................................... 3

Social Science (21 hours)
GEOG 106: World Regional Geography ....................... 3
GEOG 300: Elements of Geography .............................. 3
or GEOG 304: Human Geography ................................. 3
POLS 101: U.S. Politics ................................................. 3
POLS 301: State and Local Government and Politics .......... 3
POLS 324: Introduction to Comparative Politics .............. 3
POLS 661: Constitutional Law I ...................................... 3
or POLS 662: Constitutional Law II ................................. 3
SOC 100: Introduction to Sociology ............................... 3

Economics (3 hours)
ECON 191: Issues in Today’s Economy ......................... 3

III. Electives (12 hours)

- History (any course numbered 300 and above) (3 hours)
- Political Science (any two courses numbered 300 and above for which they have the prerequisites or permission of instructor) (6 hours)
- HIST/SOC/GEOG/ECON/POLS (any course numbered 300 and above for which they have the prerequisites or permission of instructor) (3 hours)

IV. Professional Education*
PSYCH 263: Developmental Psychology ....................... 3

PSYCH 357: Educational Psychology ............................... 3
EDUC 261: Explorations in Education .............................. 3
EDUC 307: Clinical Experience ....................................... 1
EDUC 520: Methods and Materials for Academic Literacy ......................... 3
HIST 479: Techniques for Teaching Middle and Secondary Social Studies ......................... 3
SPED 510: Overview of Special Education ....................... 3

Professional Semester (17 hours) ##
EDUC 458: Methods and Curriculum ................................ 3
EDUC 462: Secondary and Middle Level Education ................ 3
EDUC 464: Foundations of Measurement and Evaluation .............. 2
EDUC 480: Supervised Teaching in the Secondary School ............... 3
EDUC 482: Supervised Teaching in the Secondary School ............... 5
HIST 579: Supervised Student Teaching and Follow-Up of Teachers ....................... 2

*See Admission to Professional Semester for professional education grade point requirements.

PSYCH 357 Educational Psychology, EDUC 520 Methods and Materials for Academic Literacy and HIST 479 Techniques for Teaching Middle and Secondary Social Studies require Admission to Teacher Education prior to enrollment in the courses.

HIST 479 Techniques for Teaching Middle and Secondary Social Studies requires admission to History/Government Education prior to enrollment in the course.

## Majors must earn a passing score on the Praxis II 0081 Social Studies exam before being approved to student teach, including enrolling in HIST 579 Supervised Student Teaching and Follow-Up of Teachers.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.
TOTAL minimum semester hours required for Bachelor of Science in Education Degree with a Major in History/Government (139 hours)

Middle School Endorsement for History Comprehensive

History/Government Majors
To add a Middle School Endorsement, students need to complete the following:

EDUC 511: Methods and Materials in Middle Level Education .................................................. 3
Appropriate experiences during Pre-Professional Laboratory and Professional Semester

Elementary Education Majors
To add a Middle School Endorsement, students need to complete the following:

History (30 hours)
HIST 101: World History to 1500 .................................................. 3
HIST 102: World History from 1500 .................................................. 3
HIST 201: American History to 1865 .............................................. 3
HIST 202: American History from 1865 .............................................. 3
HIST 430: History: Theory and Practice .............................................. 3
HIST 619: Kansas and the West .................................................. 3

Choose two from the following (US History)*
HIST 650: Colonial America .................................................. 3
HIST 656: Sectional Conflict and Civil War .............................................. 3
HIST 665: Modern America Since 1968 .............................................. 3
*The History, Philosophy and Social Sciences Department Chair may approve appropriate content substitutions for history electives.

Choose two from the following (World History)*
HIST 540: English History to 1660 .................................................. 3
HIST 546: The Age of Empire .................................................. 3
HIST 605: Africa and the Middle East .................................................. 3
*The History, Philosophy and Social Sciences Department Chair may approve appropriate content substitutions for history electives.

Social Science (21 hours)
GEOG 106: World Regional Geography .................................................. 3
GEOG 300: Elements of Geography .................................................. 3
POLS 101: U.S. Politics ................................................................. 3
POLS 301: State and Local Government and Politics .................................................. 3
POLS 324: Introduction to Comparative Politics .................................................. 3
SOC 100: Introduction to Sociology .................................................. 3
POLS 661: Constitutional Law I .................................................. 3
or POLS 662: Constitutional Law II .................................................. 3
GEOG 106, POLS 101, SOC 100 are accepted for General Education Hours and Program Hours.

Economics (3 hours)
ECON 191: Issues in Today's Economy .................................................. 3
ECON 191 is accepted for General Education Hours and Program Hours.

Professional Education Requirements++
HIST 479: Techniques for Teaching Middle and Secondary Social Studies .................................................. 3
EDUC 511: Methods and Materials in Middle Level Education .................................................. 3
EDUC 520: Methods and Materials for Academic Literacy .................................................. 3

Admission to Teacher Education is required prior to enrollment in HIST 479 and EDUC 520

++These are requirements beyond those required in the teacher education program for all middle level endorsements.

Second Teaching Option for Secondary Education Majors
(MIDDLE SCHOOL ENDORSEMENT ONLY)

Same requirements as listed for Elementary Education Majors above.

Minor in History (Non-Teaching)
A minor in history shall consist of at least 24 semester hours of which nine hours shall be in American history, nine hours in World history; the remaining six hours shall be electives in history. A minimum of 12 hours must be in courses numbered 300-799.
Bachelor of Science Degree with a Major in Justice Studies

Associate Professor: Kathleen Cameron, Program Coordinator
Assistant Professor: Roy F. Janisch

The Bachelor of Science degree with a major in justice studies is an interdisciplinary liberal arts degree with a foundation in social science inquiry. With an emphasis on law and the social sciences, this unique contemporary degree represents the current state-of-the-art setting for studying justice and provides a comprehensive degree. Students develop an understanding of the nature of justice and analyze controversial justice issues through critical inquiry and social science investigation. While primary focus is placed on theories of justice; legal studies; social and economic justice students may elect a Criminal Justice emphasis (see below) that will allow them to pursue their interests in law enforcement, corrections, and other legal careers.

It is required that justice studies students choose a minor that complements and supports the major area of study. Students interested in law enforcement careers would find that such minors as sociology, political science, psychology, accounting, foreign language, communication, and technical education are among those that would best contribute to success in their careers. Students interested in the legal profession would find that such minors as philosophy, political science, sociology, and psychology would best contribute to success in their careers. Students interested in the field of forensics would find that minors such as biology and chemistry would best contribute to success in their careers. These are a few examples of how related areas of study can supplement the justice studies degree.

The curriculum for the BS degree in justice studies provides interdisciplinary courses in the social science department relevant to law and justice for students interested in studying justice issues, those anticipating justice related careers (including the legal profession), and interested non-majors. The justice studies degree requires a minimum of 49-50 semester hours distributed as follows:

I. Required courses (22-32 hours)

JUST 104: Introduction to the Justice System .............. 3
JUST 109: Principles of Justice Studies ...................... 3
JUST 322: Ethics and Justice Policy ......................... 3
SOSCI 387: Social Research Design .......................... 4
SOSCI 388: Social Research Analysis ........................ 4
or PSYCH 389: Research Methods in Psychology I ....... 3
JUST 501: Criminal Procedure ................................ 3
or POLS 662: Constitutional Law II .......................... 3
JUST 695: Senior Seminar in Justice Issues ................ 3
PSYCH 389 Research Methods in Psychology I may be substituted for SOSCI 388 Social Research Analysis or vice versa to meet a research statistics/methods requirement in either program. Students can use no more than 6 hours of Psychology in their Justice Studies major.

II. Complete a 3-hour course from each of the following groups for a total of 9 hours

A. Society and Justice Issues (3 hours)
SOC 360: Community Sociology ................................... 3
SOC 443: Race and Ethnic Relations ............................ 3
JUST 480: Women, Crime, and Justice ....................... 3
SOC 512: Social Stratification ...................................... 3
JUST 521: Special Topics in Justice Studies (___) ........1-3
SOC 534: Political Sociology ...................................... 3
SOC 549: Social Deviance ......................................... 3
SOC 569: Society and Sexuality ................................. 3
SOC 663: Women, Men and Society ............................ 3

B. Theories and Philosophy of Justice (3 hours)
POLS 412: Law in Film and Literature .......................... 3
POLS 450: Political Philosophy ................................... 3
JUST 500: Criminal Law and Society .......................... 3
JUST 521: Special Topics in Justice Studies (___) ........1-3
JUST 538: Philosophy of Law ..................................... 3
POLS 578: Democratic Theory and Public Opinion .......... 3
JUST 591: Native American Sovereignty and the Law .................................. 3
POLS 609: Administrative Law .................................. 3
C. Criminal Justice (3 hours)
JUST 223: Basic Interviewing and Counseling Skills .......................................................... 3
JUST 328: Police and Justice .......................................................... 3
PSYCH 456: Introduction to Social Psychology ................................................. 3
JUST 475: Community Policing .......................................................... 3
JUST 501: Criminal Procedure .......................................................... 3
JUST 502: Criminal Profiling .......................................................... 3
JUST 518: Serial Killers .......................................................... 3
JUST 521: Special Topics in Justice Studies (____) ........................................... 1-3
JUST 522: Crime Scenes and the Law of Evidence ............................................. 3
SOC 527: Correctional Systems .......................................................... 3
JUST 528: White Collar Crime .......................................................... 3
SOC 547: Criminology .......................................................... 3
SOC 548: Juvenile Delinquency .......................................................... 3
POLS 562: Law and Politics .......................................................... 3
PSYCH 571: Abnormal Psychology .......................................................... 3
SWK 599: Social Work and the Law .......................................................... 3
POLS 662: Constitutional Law II .......................................................... 3
JUST 671: Internship .......................................................... 3
PSYCH 771: Psychology and the Law .......................................................... 3
PSYCH 773: Criminal Psychopathology .......................................................... 3

III. Electives (18 hours)
Students will take at least an additional 18 hours of upper division electives from the lists noted above.

IV. Total required for Bachelor of Science
Justice Studies (49-50 hours)

Bachelor of Science Degree with a Major in Justice Studies: Criminal Justice Emphasis
The Criminal Justice emphasis allows students who are more interested in law enforcement, corrections, and other law related careers to pursue their interests within the Justice Studies major. Our Criminal Justice emphasis gives students a substantive base of criminal justice experience such as interviewing and interrogation while building on the Justice Studies major that emphasizes critical thinking skills, ability to handle statistical data, and student understanding of the broader meanings and practice of justice. This emphasis is not designed to be the equivalent of police academy training rather it will allow students whose career interests are oriented toward law related careers to pursue their goal within a broad liberal arts approach to justice.

Justice Studies (Criminal Justice Emphasis)** (18 hours)
JUST 223: Basic Interviewing and Counseling Skills .......................................................... 3

- Elective hours from the Criminal Justice list of classes (9 hours)
- Electives from any of the above areas A, B or C listed under the Bachelor of Science- Justice Studies (6 hours)

**Replaces 18 hour electives under the Bachelor of Science-Justice Studies

Minor in Fraud Examination
The Justice Studies program, in conjunction with the Department of Accounting, offers a Minor in fraud examination. Administered in the Department of Accounting and Computer Information Systems, the curriculum is patterned after the requirements found in the nationally recognized Certificate in Fraud Examination, providing coverage of the Certificate areas of: Criminology and Ethics; Legal Elements of Fraud; Financial Transactions; and Fraud Investigation. The demand for persons in this field is expected to increase and the minor represents a significant opportunity for justice studies majors who are interested in fraud and other instances of white collar crime. [Note: Prerequisites for the specified accounting classes have been waived for justice studies students taking this minor.]

Core Classes (15 hours)
ACCTG 201: Financial Accounting .......................................................... 3
ACCTG 422: Internal Auditing .......................................................... 3
ACCTG 625: Fraud Examination .......................................................... 3
JUST 223: Basic Interviewing and Counseling Skills .......................................................... 3
JUST 522: Crime Scenes and the Law of Evidence ............................................. 3

Select one (3 hours)
JUST 528: White Collar Crime .......................................................... 3
SOC 547: Criminology .......................................................... 3
Select one (3 hours)
JUST 500: Criminal Law and Society ......................... 3
JUST 501: Criminal Procedure .................................. 3
POLS 562: Law and Politics ...................................... 3

NOTE: Currently, the Internal Revenue Service allows persons who have had a total of 15 hours of accounting and nine hours of other business related classes to apply for "Special Agent" positions. Justice Studies classes add to the qualifications of persons who are interested in such a career.

Minor in Justice Studies

A minor in justice studies requires the following (21 hours)
JUST 104: Introduction to the Justice System .............. 3
JUST 109: Principles of Justice Studies ....................... 3

- A minimum of three hours from each category in secondary categories A, B, and C listed under the major (15 hours)

Minor in Psychology for Justice Studies

Majors
The Department of Psychology, in consultation with the Department of History, Philosophy and Social Sciences, has developed a 21-22 hour minor for Justice Studies majors that compliments the skill and knowledge bases developed in the Justice Studies major. [Note: Psychology classes at the 700 level are offered only during summer sessions and it will take two summers to complete 770, 771 and 773, which are offered alternatively.]

Required Courses (21-22 hours)
PSYCH 389: Research Methods in Psychology I .......... 3
or SOSCI 388: Social Research Analysis .................. 4
PSYCH 392: Research Methods in Psychology II ........ 3
PSYCH 456: Introduction to Social Psychology ........ 3
PSYCH 571: Abnormal Psychology .......................... 3
PSYCH 771: Psychology and the Law ..................... 3
PSYCH 773: Criminal Psychopathology .................... 3

Minor in Multicultural Studies
We are experiencing a changing academic and cultural environment. The minor in multicultural studies is designed to satisfy the student's desire for a more flexible academic course preparation track, while answering calls from the Kansas Board of Regents for more multicultural academic programs.

The minor in multicultural studies can enrich the student's learning experience and strengthen the student's credentials in search for employment in our increasingly diverse economic and cultural environment. The minor in Multicultural Studies can complement a number of majors, such as, English, communication, history, social sciences, economics, modern languages, business, psychology and education.

For more information contact Dr. Harry L. Humphries, Coordinator of Multicultural Studies, hlhumphr@pittstate.edu, 317 Russ Hall, or the Department of Social Sciences, 412 Russ Hall.

A minor in multicultural studies requires the following (21 hours)
At least one course must be taken from four of the departments listed below:

ART 178: Introduction to the Visual Arts .................... 3
COMM 601: Intercultural Communication .................. 3
COMM 785: International Communication ................ 3
EDUC 551: Diversity in the Classroom ..................... 3
ENGL 220: World Masterpieces .............................. 3
ENGL 315: Mythology .......................................... 3
ENGL 566: American Theme (___) .......................... 3
FCS 154: Dress and Culture .................................. 3
FCS 455: History of Costume ................................ 3
GEOG 304: Human Geography ............................... 3
GEOG 507: Geography of the Global Economy .......... 3
HIST 101: World History to 1500 ......................... 3
or HIST 102: World History from 1500 ................... 3
HIST 505: African Civilizations ............................. 3
HIST 510: Modern Middle East ............................ 3
NURS 745: Transcultural Health Care .................... 1-3
PHIL 231: World Religions .................................. 3
POLS 640: African Politics .................................. 3
PSYCH 720: Multicultural Issues in Psychology and Counseling ................................................. 3
SOC 200: Introduction to Anthropology .................... 3
SOC 443: Race and Ethnic Relations ........................ 3
SOC 569: Society and Sexuality ............................ 3
SOC 676: Global Sociology ........................................ 3
SWK 341: Social Work and the Aged ............................ 3
WOMEN 200: Introduction to Women’s Studies ............ 3
WOMEN 399: Global Women’s Issues .......................... 3

Minor in Philosophy
Professor: Donald W. Viney
Assistant Professor: James McBain

Pythagoras is said to have coined the word philosophy which to the Greeks meant being a friend of wisdom. While wisdom is intrinsically valuable and philosophy has traditionally been a central element in a liberal education, a philosophy minor also can provide students with transferable skills relevant to vocational success. Students not only can be exposed to the nature of ethics and aesthetics but also to logic and how one comes to understand the limits of truth, knowledge, and intellectual justification. Philosophy trains the individual to think rigorously and precisely, traits which are an especially good preparation for law school, as well as those professions in which the identification and solving of problems are important components of vocational success.

A minor in philosophy requires the following (21 hours)
PHIL 208: Logic and Critical Thinking ...................... 3

Six hours chosen from
PHIL 310: History of Ancient Philosophy ................. 3
PHIL 311: History of Modern Philosophy .................. 3
PHIL 312: Contemporary Philosophy .......................... 3

Electives in philosophy (12 hours)
PHIL 103: Introduction to Philosophy ....................... 3
PHIL 105: Ethics .................................................. 3
PHIL 111: Ethics: Applied Emphasis (___) ................... 3
PHIL 112: Biomedical Ethics ................................... 3
PHIL 113: Business Ethics ..................................... 3
PHIL 114: Environmental Ethics ............................. 3
PHIL 231: World Religions .................................... 3
PHIL 310: History of Ancient Philosophy ................. 3
PHIL 311: History of Modern Philosophy .................. 3
PHIL 312: Contemporary Philosophy ........................ 3
PHIL 313: Topics in Philosophy ................................ 3
JUST 322: Ethics and Justice Policy ......................... 3
POLS 450: Political Philosophy ............................... 3
JUST 538: Philosophy of Law ................................ 3
PHIL 645: Directed Readings in Philosophy ............... 1-3

The six hours chosen from PHIL 310, PHIL 311 and PHIL 312 cannot be used as part of this 12 hours.

Bachelor of Arts Degree with a Major in Political Science
Professors: Michael Kelley, Paul Zagorski
Associate Professor: Darren Botello-Samson
Assistant Professor: Mark J. Peterson
Instructor: Daniel Betti

The political science major is an excellent liberal arts background for students preparing for careers in which critical thinking and writing skills as well as an understanding of politics and government is either essential or desirable.

To promote their career goals, students often combine their political science major with a minor or major in business, international studies, justice studies, communication, biology, geography, economics or foreign languages. Political Science provides valuable insights into the functioning of government and politics (locally, nationally and globally) which also serve as excellent preparation for further graduate or professional education.

The Political Science program at Pittsburg State University offers courses in American Politics and Government, Constitutional Law and Judicial Process, Political Philosophy, International Relations, and Comparative Politics.

The political science major must (1) complete the university’s General Education requirements; (2) meet the distribution and hour requirements (33) in political science; (3) take either MATH 143 Elementary Statistics (substitutes for MATH 113 College Algebra in the university’s General Education requirements) or SOSCI 388 Social Research Analysis; (4) take ECON 201 Introduction to Macroeconomics as a cognate requirement (meets the university’s General Education requirement in the economics area of the Producing and Consuming category); (5) elect a minor; and (6) take
at least 45 upper division hours of classes listed at the 300 level or above.

Core (12 hours)
POLS 101: U.S. Politics ................................................. 3
POLS 320: Introduction to Political Science .................. 3
POLS 324: Introduction to Comparative Politics ............ 3
POLS 686: Senior Seminar in Political Science ............. 3

International (3 hours)
POLS 530: International Relations ............................... 3
or POLS 630: International Political Economy ............. 3

Political Philosophy (3 hours)
POLS 450: Political Philosophy .................................... 3
or JUST 538: Philosophy of Law ................................... 3
or POLS 578: Democratic Theory and Public Opinion ........................... 3

Political Science electives (15 hours)
POLS 301: State and Local Government and Politics .......... 3
POLS 412: Law in Film and Literature .......................... 3
POLS 450: Political Philosophy .................................... 3
POLS 492: Directed Readings in Political Science .......... 1-3
POLS 512: Environmental Politics ............................... 3
POLS 516: Political Parties and Elections ..................... 3
POLS 517: U.S. Congress .............................................. 3
POLS 524: European Politics ....................................... 3
POLS 525: Politics and War in the Middle East ............. 3
POLS 526: Latin American Politics .............................. 3
POLS 530: International Relations ............................... 3
SOC 534: Political Sociology ..................................... 3
JUST 538: Philosophy of Law .................................... 3
POLS 562: Law and Politics ....................................... 3
POLS 571: Political Studies-Selected Topics (___) ... 1-3
POLS 578: Democratic Theory and Public Opinion .......... 3
POLS 587: U.S. Foreign Policy ................................... 3
POLS 604: The American Presidency ........................... 3
POLS 609: Administrative Law ................................... 3
POLS 616: Interest Groups and Social Movements .......... 3
POLS 630: International Political Economy ................. 3
POLS 640: African Politics ........................................... 3
POLS 660: Political Science Internship (___) .............. 1-3
POLS 661: Constitutional Law I .................................. 3
POLS 662: Constitutional Law II ................................. 3
POLS 680: War: The Politics of Violence ..................... 3

Statistics Requirement (3-4 hours)
MATH 143: Elementary Statistics ................................ 3
or SOSCI 388: Social Research Analysis ..................... 4
All Political Science majors (including those in the pre-law emphasis area) are required to take MATH 143 Elementary Statistics, 3 hours, or SOSCI 388 Social Research Analysis, 4 hours.

MATH 143 can be used as a General Education substitute for MATH 113 College Algebra.

Cognate Requirement (3 hours)
ECON 201: Introduction to Macroeconomics ................ 3
Can be used to meet a General Education requirement in the Producing and Consuming category.

Bachelor of Arts Degree with a Major in Political Science: Pre-Law Emphasis
The Pre-Law emphasis within the political science major offers excellent preparation for students considering future legal training. Both the requirements of the Pre-Law emphasis and the advice given by the students' academic advisors are shaped by the recommendations of the Law School Admissions Council. Pre-Law students develop the knowledge base and critical thinking, writing and speaking skills essential for success in law school. As with the general Political Science degree, the Pre-Law emphasis opens the door to a wide variety of opportunities besides the legal profession. Combining of Pre-Law with Justice Studies is a valuable choice for Political Science (Pre-Law emphasis) majors. Beyond academic course work, the program provides counseling on how to apply for law school as well as an array of activities that enhance the students' chances of success in securing law school admission.

Political Science/Pre-Law Requirements
Political Science (Pre-Law emphasis) majors meet all the requirements for the general Political Science degree.

Pre-Law students take the following:
POLS 562: Law and Politics ....................................... 3
Minor in Political Science
A minor in political science shall consist of not less than 21 semester hours in political science. Students are urged to include courses required for the major in the minor.

Bachelor of Science Degree with a Major in Social Work

Professor: Bradley Cameron, Program Director
Assistant Professors: Kristen Humphrey, Aesha John
Instructor: Patty Magee

The primary objective of this program is to prepare students to enter social work practice at the beginning professional level upon graduation. The program is accredited by the Council on Social Work Education and graduates from it are eligible to be licensed social workers in Kansas. Completion of this program will also provide students with the foundation for advanced education in social work at graduate schools of social work. Finally, this program will prepare students for informed, responsible citizenship in a society in which social welfare plays a major role.

To this end, the program provides content in the areas of (a) social work practice, (b) social welfare policy and services, (c) human behavior in the social environment, (d) social research, and (e) includes 480 clock hours of educationally directed practicum in social work.

The social work program builds on and is integrated with the liberal arts 46-54 hour general education base common to all Bachelor of Science degrees at this institution.

Admission: Students may apply for admission to the Social Work Program when they meet the following criteria:

(a) have not less than an overall grade point average of 2.0.

(b) completion of SWK 201 Introduction to Social Work and SWK 221 Basic Helping Skills. (A grade of not less than "C" must have been earned in each of the above courses.)

Students may apply for admission to the social work program during the semester that will result in their eligibility for admission under the above criteria. Admission will be contingent upon successful completion of that semester's enrollment. Transfer students may apply for provisional admission if they meet the criteria outlined under (a) above. They will be expected to satisfactorily complete the criteria outlined under (b) above during their first year of provisional admission status, following which they will be granted full admission to the social work program.

The admission process includes (1) the submission of an application for admission to the social work program, (2) a written self-evaluation dealing with motivation for and commitment to professional social work education, (3) two letters of reference, and (4) a personal interview with the Admissions Committee after the committee has reviewed the applicant’s written materials. The Admissions Committee is composed of at least two full-time social work faculty members and a representative from the Social Work Advisory Committee. (Application forms may be obtained from the practicum coordinator or the director of the social work program.)

An applicant who has been denied admission to the program may request an appearance before the Admissions Committee in order to show cause why the application should not be rejected. Only students possessing full admission or provisional admission status may enroll in advanced practice social work courses.

A grade of "C" or above in all required courses for the social work major is required for continuation in the program and an overall 2.5 GPA in social work classes is required to graduate.

Additional Considerations

Social work majors must include a minimum of 3 hours in the area of human biological sciences when meeting the natural science general education requirement (BIOL 113 Environmental Life Science meets this requirement). Social Work majors must also fulfill the 3
hour general education requirement in the economy and society component by taking ECON 191 Issues in Today’s Economy. (In this and in other areas of general education requirements, certain courses are more relevant to the social work major than others; hence, it is urged that students consult carefully with social work faculty advisors in the choice of all general education courses.)

Specialization in certain fields is being increasingly emphasized in social work practice, and students may wish to gain some insight into and greater knowledge in specific fields that are of particular interest to them, such as group and recreational work, family services, child welfare, probation and correctional work, medical and mental health services, school social work and aging services. Approximately 21 hours of general electives available to the student with a social work major may be used for this purpose through careful selection of courses in the appropriate disciplines in consultation with social work faculty advisors. It should be emphasized, however, that the primary objective of the social work program is the preparation of generalist practitioners, and specialty preparation is secondary to the above objective.

**Major Requirements (60-63 hours)**

The social work major consists of not less than 60 hours distributed as follows

**Pre-Admission Courses (6 hours)**

SWK 201: Introduction to Social Work ............................ 3
SWK 221: Basic Helping Skills ........................................ 3

**Post-Admission Courses**

SWK 340: Social Work with Families and Children ........... 3
SWK 344: Mental Health Theory and Practice .................... 3
SWK 365: Social Process and Social Policy ....................... 3
SWK 375: Multiculturalism and Diversity in Social Work Practice ......................................................... 3
or SOC 443: Race and Ethnic Relations ......................... 3
or PSYCH 720: Multicultural Issues in Psychology and Counseling .......................................................... 3
SWK 385: Human Behavior Social Environment:
Individual and Family Functioning ............................. 3
SWK 420: Advanced Social Work Practice I ..................... 3
SWK 465: Social Welfare Policy Analysis ....................... 3
or SOSCI 387: Social Research Design ............................ 4
or PSYCH 389: Research Methods in Psychology I .......... 3
and PSYCH 392: Research Methods in Psychology II .......... 3
SWK 485: Human Behavior in the Social Environment: Groups and Communities ......................... 3
SWK 599: Social Work and the Law ............................... 3
SWK 620: Advanced Social Work Practice II .................... 3
SWK 621: Practicum in Social Work ............................... 9
SWK 622: Integrative Seminar in Social Work .................. 3

SWK 620 Advanced Social Work Practice II must be taken the semester prior to or concurrently with the Professional Semester.

SWK 621 Practicum in Social Work is part of the Professional Semester.

SWK 622 Integrative Seminar in Social Work is part of the Professional Semester.

**Electives (9 hours)**

Choose three courses from the following list

SWK 341: Social Work and the Aged ............................. 3
SWK 342: Health Care and Social Work ....................... 3
SWK 343: Social Work with Families Affected by Disability ................................................................. 3
SWK 345: Topics in Social Work (____) ......................... 1-3
SOSCI 388: Social Research Analysis ........................... 4
SWK 399: Social Work and the Court Process ................. 3
GEOG 401: Urban and Regional Planning ..................... 3
SOC 443: Race and Ethnic Relations ........................... 3
JUST 500: Criminal Law and Society .......................... 3
JUST 501: Criminal Procedure .................................. 3
SOC 527: Correctional Systems ................................. 3
SOC 548: Juvenile Delinquency .................................. 3
PSYCH 571: Abnormal Psychology ............................. 3
SWK 598: Chemical Abuse Treatment and Services ............. 3
Bachelor of Science Degree with a Major in Sociology

Professor: Karl Kunkel
Associate Professors: Browyn Conrad, Marjorie Donovan, Harry L. Humphries
Instructor: Gary Wilson

Sociology is the scientific study of human social behavior, as well as the structure, organization, and processes that define contemporary society. As the foundation of many fields of study, including social work, gerontology, demography, and criminal justice, sociology serves as a valuable liberal arts major for students planning careers in a wide variety of fields, including law, law enforcement, criminology, social services, public administration, community planning, international relations, and market research. Sociology's concentration on such social factors as race, ethnicity, gender, age, education, and social class also make it an excellent foundation for working in today's multiethnic, multinational business world. The major is organized to reflect the rationale and recommendations of the American Sociological Association and requires the completion of a minimum of 38 semester hours in sociology. Majors in sociology must complete 45 upper-division credit hours to graduate and must take at least one minor or second major with a minimum of 16 upper-division semester credit hours. Suggested minors and/or second majors include: history, geography, psychology, multicultural studies, international studies, or women's studies. Majors may also choose to pursue a recognized emphasis in one of the following two specializations: 1) Criminology or 2) Diversity Studies.

An undergraduate major in sociology provides the student with an understanding of the intellectual tradition focusing on the description, understanding, and evaluation of human society, its structure, organization, and processes. Organized around a central core of knowledge and skills that characterize the discipline and reflect the recommendations of the American Sociological Association on teaching the discipline in the 21st century, the program requires an appreciation of sociological theory; quantitative methods and analysis; technical knowledge of how to deal with data; issues of gender, race, culture, and class; and the areas of socialization, stratification, and social structures. The program not only provides knowledge of the central disciplinary themes, but, also allows students to explore their interests and advance career aspirations. Students may elect to take a general major in sociology or pursue one of two degree emphases: Criminology and Diversity Studies.

The requirements for the BS degree with a major in sociology are:

I. REQUIRED COURSES (17 HOURS)
SOC 100: Introduction to Sociology ........................................ 3
SOSCI 387: Social Research Design ......................................... 4
SOSCI 388: Social Research Analysis ........................................ 4
SOC 675: Sociological Theory .................................................. 3
SOC 691: Senior Seminar in Sociology ...................................... 3

II. COMPLETE ONE 3-HOUR COURSE FROM EACH OF THE FOLLOWING GROUPS FOR A TOTAL OF 9 HOURS

A. CRIME/DEVIENCE
SOC 220: Social Problems ..................................................... 3
SOC 527: Correctional Systems .............................................. 3
SOC 547: Criminology .......................................................... 3
SOC 548: Juvenile Delinquency .............................................. 3
SOC 549: Social Deviance ....................................................... 3

B. SOCIAL INSTITUTIONS AND ORGANIZATIONS
SOC 200: Introduction to Anthropology .................................. 3
SOC 360: Community Sociology ............................................ 3
SOC 410: Sociology of Sport ................................................... 3
SOC 440: Personality and Social Structure .............................. 3
SOC 534: Political Sociology .................................................. 3
SOC 536: The Family and Society .......................................... 3
SOC 584: Medical Sociology .................................................. 3

C. SOCIAL INEQUALITY
SOC 443: Race and Ethnic Relations ....................................... 3
SOC 512: Social Stratification .................................................. 3
SOC 569: Society and Sexuality .............................................. 3
SOC 663: Women, Men and Society ....................................... 3
SOC 676: Global Sociology .................................................... 3
III. Complete 12 hours of electives in sociology

IV. Total required for Bachelor of Science-Sociology (38 hours)

Bachelor of Science Degree with a Major in Sociology: Criminology Emphasis
In addition to the other requirements for the Bachelor of Science degree, sociology majors pursuing an emphasis in Criminology must complete six hours of electives in sociology from among the courses listed under group A (Crime and Deviance).

Bachelor of Science Degree with a Major in Sociology: Diversity Studies Emphasis
In addition to the other requirements for the Bachelor of Science degree, sociology majors pursuing an emphasis in Diversity Studies must complete six hours of electives in sociology from among the courses listed under group C (Social Inequality).

Minor in Sociology
A minor in sociology shall consist of not less than 21 semester hours in sociology. Required course: SOC 100 Introduction to Sociology. At least 12 semester hours must be in upper division sociology courses.

Master of Arts Degree with a Major in History
Statement of Purpose
The decision to seek an advanced degree in the History Program reflects an interest in and an appreciation for the historical past. The History Program’s purpose is threefold: to prepare individuals well qualified to teach the subject of history; to provide students with research and investigative skills applicable to academic and professional situations; and to encourage the thoughtful and continuing study of history throughout the lifetime of the individual. The History Program is committed to excellence in the education of teachers and to completeness in the preparation of students for the many History-related career opportunities beyond teaching now open. There are a few absolute requirements for each degree path, but otherwise students have great freedom in terms of topics and pace of study. Many courses are available as online offerings, though students who wish to pursue the degree mostly or entirely online may find the course offerings limited.

There is no prerequisite for beginning graduate study in history beyond completion of an undergraduate degree. An applicant who meets the Graduate School’s requirements for admission and has earned a GPA of 3.0 (on a 4-point scale) or better over 24 semester hours of undergraduate history will be admitted fully and unconditionally to the program. An applicant who does not meet that condition will be admitted conditionally. Students interested in further information about the Master of Arts program in history should write or consult with the Graduate Program Director for History (Associate Professor Jonathan Dresner; jdresner@pittstate.edu). After reviewing the application, the director will assign the student a major professor to advise on matters of enrollment.

TOEFL
The minimum TOEFL score required for international students with a graduate major in history is 550/79 (paper-based/internet-based) for the Test of English as a Foreign Language (TOEFL) or 6.5 (overall and in all bands) for the IELTS.

There are two options available for the Master of Arts degree, both of which require that a minimum of 15 semester hours of history courses numbered 800 and above. A maximum of six semester hours of approved courses below the 700 level may also be included in the degree program. At least 21 credit hours counted toward the MA in History at PSU must be taken from PSU History faculty or those admitted to Graduate Service status at PSU. See the requirements in the full graduate program guidelines for additional information. Both options require successful completion of HIST 807 Historical Research and Historiography and at least one graduate seminar (HIST
813 Seminar in American History (___) or HIST 820 Seminar in World History (___).

**OPTION I: Thesis**  This option requires, in addition to regular coursework, enrollment in HIST 890 Research and Thesis. The History program strongly recommends a thesis for any student planning to go on for a PhD degree as preparation for researching and writing a dissertation. **Option I requires a minimum of 30 semester hours.**

**Option II: Problem**  This option is not available at this time.

**OPTION III: Seminar**  This option requires enrollment in and passing two graduate seminars in history. This option involves three tracks to the degree. 1) Students may offer a substantial curricular project including annotated bibliography and classroom materials. 2) Students may present two revised and substantially expanded seminar papers. 3) Students may take a comprehensive examination over a broad historical field. This option requires, in addition to regular coursework, enrollment in HIST 892 Final Assessment. **Option III requires 32 semester hours.**

**Note:** Graduate students can count a maximum of six credits of 500-600 level coursework on their graduate program. Usually, 500 and 600 level courses are taken for graduate credit as History-Selected Subjects (___) 700-xx. In most cases, additional work, in the form of a paper, additional book reviews, and the like, will be required beyond the undergraduate requirements in order to obtain the advanced credit. You must have at least 15 credit hours of 800-899 classes to graduate. Historiography, seminars, and readings classes are in this category.

The current Graduate Program Guidelines offer the most complete information on specific requirements for this degree. A copy can be obtained through the department web page or by contacting the department.
The Bachelor of Arts degree is recommended for students who plan to pursue mathematical study at the doctoral level. It is also recommended, in conjunction with the teacher certification program, for strong students who plan to become teachers of mathematics, particularly in higher education.

The Bachelor of Science degree is recommended for students who plan to pursue work in industry immediately after graduation or who plan to pursue further mathematical study.

The Bachelor of Science in Education is recommended for most students who plan to become secondary or middle school teachers of mathematics.

**Note:** Students who have completed intermediate or college algebra in high school may not enroll in the same courses for college credit. They may attend any of these classes for review purposes. Trigonometry may be repeated in college for full credit if approved by the student's major adviser. Students with strong preparation in high school trigonometry and two years of algebra may begin their college mathematics with MATH 150 Calculus I. A curriculum requirement of college algebra may be met by completing MATH 113 College Algebra, MATH 110 College Algebra with Review, MATH 126 Pre-Calculus, MATH 150 Calculus I, or MATH 153 Introduction to Analytic Processes. The department cooperates with other departments and with the students in an effort to insure that they enroll in the courses that are most appropriate for them.
Fine Arts and Aesthetic Studies (2-3 hours)
Cultural Studies (10 hours)
   (10 hours in one foreign language required for the B.A. degree)
Health and Well-Being (4-6 hours)
Human Heritage (6 hours)

* Courses must be taken from the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

** Three hours of general education basic skills are satisfied by the requirements in Mathematics. Three hours of general education electives are satisfied by the required programming course in Computer Science.

Major (Mathematics) Core Requirements (46 hours)

MATH 150: Calculus I ........................................... 5
MATH 155: Calculus II ......................................... 5
MATH 212: Matrix Algebra .................................... 2
MATH 253: Calculus III ....................................... 3
MATH 543: Probability and Statistics ..................... 3
MATH 607: History of Mathematics ....................... 3
MATH 617: Linear Algebra .................................... 3
MATH 627: Linear Optimization Models .................. 3
or MATH 656: Mathematical Modeling .................. 3
MATH 699: Senior Seminar ................................... 1
CIS 230: Visual Basic Programming ...................... 3
or CIS 240: C++ Programming ............................. 3
or A computer programming course approved by the mathematics department

   • Electives***, minimum of (15 hours)

*** Electives must be chosen from three or more different areas, as listed below for the Bachelor of Science degree, one of these must be MATH 613 Abstract Algebra or MATH 557 Analysis I. At least two electives must be chosen from the Basic Theoretical Mathematics area. A course may not be counted as both an elective and a major core course.

An appropriate minor is required. The degree requirements for a B.A. major in mathematics requires a minimum of 124 semester hours.

Bachelor of Science Degree with a Major in Mathematics

   General Education Requirements* (40-47 hours)

Basic Skills** (9 hours)

General Education Electives (31-38 hours)

   Sciences (8-9 hours)
   Social Studies (3 hours)
   Political Studies (3 hours)

   Producing and Consuming** (2-3 hours)

   Fine Arts and Aesthetic Studies (2-3 hours)

   Cultural Studies (3-5 hours)
   Health and Well-Being (4-6 hours)
   Human Heritage (6 hours)

* Courses must be taken from the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

** Three hours of general education basic skills are satisfied by the requirements in Mathematics. Three hours of general education electives are satisfied by the required programming course in Computer Science.

Major (Mathematics) Core Requirements (46 hours)

MATH 150: Calculus I ........................................... 5
MATH 155: Calculus II ......................................... 5
MATH 212: Matrix Algebra .................................... 2
MATH 253: Calculus III ....................................... 3
MATH 543: Probability and Statistics ..................... 3
MATH 617: Linear Algebra .................................... 3
MATH 627: Linear Optimization Models .................. 3
or MATH 656: Mathematical Modeling .................. 3
MATH 699: Senior Seminar ................................... 1
CIS 230: Visual Basic Programming ...................... 3
or CIS 240: C++ Programming ............................. 3
or CIS 240: C ++ Programming ..................................3
or A computer programming course approved by the mathematics department

- Electives*, minimum of (18 hours)

* Electives must be chosen from at least three of the following areas, one of these must be MATH 613 Abstract Algebra or MATH 557 Analysis I. At least two electives must be chosen from the Basic Theoretical Mathematics area. A course may not be counted as both an elective and a major core course.

Areas

Basic Theoretical Mathematics
MATH 513: Discrete Structures ..................................3
MATH 557: Analysis I ............................................3
MATH 613: Abstract Algebra ....................................3

Applications
MATH 553: Differential Equations ..............................3
MATH 558: Vector Calculus ......................................3
MATH 569: Numerical Analysis ..................................3
MATH 627: Linear Optimization Models ......................3
MATH 656: Mathematical Modeling ............................3
MATH 658: Financial Mathematics ............................3
MATH 726: Probability Models ..................................3
MATH 728: Mathematics of Financial Derivatives ..........3
MATH 763: Numerical Linear Algebra .........................3

Geometry
MATH 635: The Geometry of Space-Time ....................3
MATH 636: Basic Concepts of Geometry ......................3
MATH 733: Topology ............................................3

History
MATH 607: History of Mathematics ............................3

Probability and Statistics
MATH 643: Mathematical Statistics ............................3
MATH 646: Statistical Methods I ................................3

An appropriate minor is required. The degree requirements for a B.S. major in mathematics requires a minimum of 124 semester hours.

Bachelor of Science Degree with a Major in Mathematics: Actuarial Science
An actuary is a person who works for insurance or investment companies and is primarily responsible for determining rates and benefits for insurance policies and retirement instruments. The profession of actuary regularly ranks near the top in surveys of job satisfaction of all professions. One becomes an actuary, and progresses in the profession, by passing tests administered by the Society of Actuaries and the Casualty Actuarial Society, which govern the profession. The actuarial emphasis program at Pittsburg State University is designed to help a student pass the first two of these exams before graduation and to give the student an adequate foundation to begin work as an actuary and to progress in the exam sequence.

General Education Requirements* (38-44 hours)

Basic Skills** (9 hours)

General Education Electives (29-35 hours)

Sciences (8-9 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming** (0 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)

Human Heritage (6 hours)

*Courses must be taken for the list approved by the General Education Committee. See General Education Requirements for All Baccalaureate Degrees.

**Three hours of general education basic skills are satisfied by the requirements in Mathematics. Six hours
of general education electives are satisfied by the required programming course in Computer Science and ECON 200 Introduction to Microeconomics.

**Major (Mathematics) Core Requirements (50 hours)**

MATH 150: Calculus I ........................................... 5  
MATH 155: Calculus II ......................................... 5  
MATH 212: Matrix Algebra ..................................... 2  
MATH 253: Calculus III ......................................... 3  
MATH 543: Probability and Statistics .......................... 3  
MATH 617: Linear Algebra ...................................... 3  
MATH 643: Mathematical Statistics ............................ 3  
MATH 646: Statistical Methods I ............................... 3  
MATH 656: Mathematical Modeling ........................... 3  
MATH 670 Topics in Mathematics: (____) ..................... 1-3  
MATH 674: Seminar: Actuarial Exam Number II .......... 1  
MATH 699: Senior Seminar .................................... 1  
MATH 728: The Mathematics of Financial Derivatives .................................................. 3

- Electives, minimum of 12 hours from courses below*

MATH 674 Seminar: Actuarial Exam Number II cannot be used for both major core requirements and applied mathematics areas.

**Major (Business) Requirements (18 hours)**

- A computer programming course approved by the mathematics department or

CIS 230: Visual Basic Programming ........................... 3  
or CIS 240: C ++ Programming ................................. 3  
ACCTG 201: Financial Accounting ............................ 3  
ECON 200: Introduction to Microeconomics ................ 3  
ECON 201: Introduction to Macroeconomics ................. 3  
FIN 326: Business Finance .................................... 3  
ECON 418: Intermediate Microeconomics .................. 3  
or ECON 419: Intermediate Macroeconomics ............... 3

ECON 418 or ECON 419 Cannot be used for both areas.

*One elective (3 hours) from pure mathematics, two (6 hours) from applied mathematics, and one (3 hours) from business must be chosen from the lists below.

**Area: Pure Mathematics**

MATH 513: Discrete Structures ................................... 3  
MATH 557: Analysis I ........................................... 3  
MATH 558: Vector Calculus ...................................... 3  
MATH 607: History of Mathematics ............................ 3  
MATH 613: Abstract Algebra .................................... 3  
MATH 635: The Geometry of Space-Time .................... 3  
MATH 636: Basic Concepts of Geometry ...................... 3

**Area: Applied Mathematics**

MATH 553: Differential Equations ............................. 3  
MATH 569: Numerical Analysis ................................. 3  
MATH 627: Linear Optimization Models ........................ 3  
MATH 656: Mathematical Modeling ........................... 3  
MATH 670: Topics in Mathematics: (____) ..................... 1-3  
MATH 674: Seminar: Actuarial Exam Number II .......... 1  
MATH 749: Time Series Analysis ............................... 3

MATH 670 Topics in Mathematics must be taken as Actuarial Science.

MATH 674 Seminar: Actuarial Exam Number II cannot be used for both core requirements and applied mathematics areas.

**Area: Business**

ECON 418: Intermediate Microeconomics .................... 3  
ECON 419: Intermediate Macroeconomics .................... 3  
FIN 627: Advanced Business Finance ........................ 3

The degree requirements for a B.S. Major in Mathematics with Emphasis in Actuarial Science requires a minimum of 124 semester hours. No minor is required.

**Bachelor of Science in Education Degree with a Major in Mathematics (Grades 6-12)**

All students preparing to teach must meet the general education requirements for all baccalaureate degrees as
well as the requirements for teacher licensure. The following plan will satisfy both requirements.

General Education Degree Requirements for students preparing to teach* (40-47 hours)

Basic Skills**,# (9 hours)

General Education Electives (31-38 hours)

- Sciences (8-9 hours)
- Social Studies (3 hours)
- Political Studies (3 hours)
- Producing and Consuming** (2-3 hours)
- Fine Arts and Aesthetic Studies (2-3 hours)
- Cultural Studies (3-5 hours)
- Health and Well-Being (4-6 hours)
- Human Heritage (6 hours)

* See General Education Requirements for Students Preparing to Teach Secondary School.

** Three hours of general education basic skills are satisfied by the requirements in Mathematics. Three hours of general education basic skills are satisfied by the required programming course in Computer Science.

# Must have a “C” or better in each of the Basic Skills courses.

Major (Mathematics) Core Requirements (46 hours)

MATH 143: Elementary Statistics .................................................. 3
MATH 150: Calculus I ................................................................. 5
MATH 155: Calculus II ............................................................. 5
MATH 212: Matrix Algebra ....................................................... 2
MATH 253: Calculus III ............................................................ 3
MATH 471: Manipulatives for Teaching
Mathematics ................................................................. 1
MATH 472: Calculators in Teaching Mathematics .............. 1
MATH 473: Mathematical Software ...................... 1
MATH 513: Discrete Structures ............................................. 3
MATH 543: Probability and Statistics ...................... 3
MATH 607: History of Mathematics ............................. 3

MATH 613: Abstract Algebra .................................................. 3
MATH 636: Basic Concepts of Geometry .......................... 3
MATH 656: Mathematical Modeling .................................. 3
MATH 699: Senior Seminar ................................................ 1
CIS 230: Visual Basic Programming .................................. 3
or CIS 240: C ++ Programming ........................................ 3
or a computer programming course approved by the mathematics department

- Electives, minimum of 3 hours***

***Electives must be selected from courses numbered above 253, exclusive of courses listed for elementary education majors MATH 304, MATH 307, MATH 503, MATH 705.

Professional Education**** (37-40@ hours)

EDUC 261: Explorations in Education ................................. 3
PSYCH 263: Developmental Psychology .......................... 3
PSYCH 357: Educational Psychology .............................. 3
MATH 479: Techniques for Teaching Mathematics .............. 1-3
MATH 480: Clinical Experience in Secondary Mathematics Teaching ........................................ 1
SPED 510: Overview of Special Education ........................ 3
EDUC 511: Methods and Materials in Middle Level Education ........................................ 3
EDUC 520: Methods and Materials for Academic Literacy ........................................ 3
MATH 679: Mathematics Education Seminar .................... 1

Professional Semester (17 hours)

EDUC 458: Methods and Curriculum .................................. 3
EDUC 462: Secondary and Middle Level Education .......... 2
EDUC 464: Foundations of Measurement and Evaluation ........................................ 2
EDUC 480: Supervised Teaching in the Secondary School .................................... 3
EDUC 482: Supervised Teaching in the Secondary School .................................... 5
MATH 579: Supervised Student Teaching and Follow-Up of Teachers .................................. 2

****See Admission to Professional Semester for professional education grade point requirements.
MATH 479 Techniques for Teaching Mathematics must be taken for 3 hours.

EDUC 511 Methods and Materials in Middle Level Education required of students seeking middle level certification.

The degree requirements for a B.S. in Education with a major in mathematics requires a minimum of 124 semester hours.

PSYCH 357 Education Psychology, MATH 479 Techniques for Teaching Mathematics, EDUC 511 Methods and Materials in Middle Level Education, EDUC 520 Methods and Materials for Academic Literacy require admission to Teacher Education to enroll in the class.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

Minor in Mathematics
A minor in mathematics is supportive of various areas, particularly the biological, physical, computer, managerial, and social sciences. Consult the department for recommended courses.

Required Courses (20 hours)
MATH 150: Calculus I ........................................... 5
MATH 212: Matrix Algebra ................................. 2
MATH 143: Elementary Statistics ......................... 3
or MATH 543: Probability and Statistics ............... 3
or CIS 230: Visual Basic Programming ................ 3
or CIS 240: C++ Programming ............................ 3
or A computer programming course approved by the mathematics department

- Electives from approved mathematics courses numbered 143 or above (10 hours)

Minor in Mathematics (Teaching Grades 5-8)
This minor in mathematics has been designed to satisfy mathematics teacher licensure requirements for Late Childhood/Early Adolescence (5-8). This minor is only available in conjunction with a Bachelor of Science in Education degree.

Mathematics for Grades 5-8 (27 hours)
MATH 126: Pre-Calculus ..................................... 4
MATH 143: Elementary Statistics ....................... 3
MATH 304: Mathematics for Education II ............ 3
MATH 307: Geometry for Education ................ 3
MATH 471: Manipulatives for Teaching
Mathematics .......................................................... 1
MATH 472: Calculators in Teaching Mathematics ...... 1
MATH 473: Mathematical Software ...................... 1
MATH 479: Techniques for Teaching Mathematics
............................................................................ 1-3
MATH 480: Clinical Experience in Secondary
Mathematics Teaching .......................................... 1
MATH 503: Introduction to Advanced
Mathematical Concepts for Education ................ 3
MATH 679: Mathematics Education Seminar ......... 1
CIS 230: Visual Basic Programming .................. 3
or CIS 240: C++ Programming ........................... 3
or A computer programming course approved by the mathematics department

MATH 479 Techniques for Teaching Mathematics requires admission to Teacher Education prior to enrolling in the course and must be taken for 3 hours.

Master of Science Degree with a Major in Mathematics
Community College Teaching Emphasis
Secondary Teaching Emphasis

The Department of Mathematics offers courses leading to the degree of Master of Science. Candidates for this degree must meet the requirements for Option I or Option II as described at Graduate Degrees and Options of this catalog. The prerequisite for starting a major is eight hours of acceptable courses in mathematics beyond MATH 253 Calculus III.
A minimum of 20 hours of acceptable courses in mathematics is required. MATH 890 Research and Thesis or MATH 891 Research Problem, and other 800-level courses for a minimum of 15 hours credit should be included. A program with an applied or theoretical emphasis is available.
Military Science

Chairperson: Lieutenant Colonel Christopher Lambert  
Professor(s): LTC Christopher Lambert  
Associate Professor(s):  
Assistant Professor(s): SSG Robert Graham, CPT Drew Polen, 1LT Timothy Wilkins  
Instructors: Forrest W. Robertson

Room Student Recreation Center  
Telephone: 620-235-4859  
Fax: 620-235-4862  
http://www.pittstate.edu/department/military/  
E-mail: dpolen@pittstate.edu

Undergraduate
Minor in Military Science

Army Reserve Officers' Training Corps (ROTC)

Army ROTC is a program open to all students that provides an introduction to the military and its role in our society. It provides training and laboratory experiences in leadership, goal orientations, time management, communications, survival and group dynamics. Extracurricular activities available for enrolled students include paintball, rappelling, parachute jumping and military skills competition. For students who progress through the program, it provides the opportunity to earn a commission as an officer in the Army, Army Reserve or Army National Guard.

The program is divided into two parts. The basic course is open to all students regardless of age or physical condition and may be taken at any point in the student’s college career. The focus is on introducing the student to the Army and providing skills to enhance performance in whatever career path is chosen. The advanced course is open only to juniors, seniors and graduate students who desire a commission and the opportunity to serve as an officer in the armed forces.

Basic Course

The basic course consists of five courses: three (3) one-hour credit courses and two (2) three-hour credit courses. These classes are open to all students and like any other course, may be dropped with no obligation. Students receive instruction and laboratory opportunities in leadership, communications, and confidence building.

Leaders Training Course

This is not basic training. It is a fully paid four week summer camp attended by potential ROTC students who have 55 or more college credit hours, but who do not have the requisite 10 semester hours of the basic course ROTC classes or prior military service. Students will learn basic military skills through hands-on practice such as first-aid, weapons familiarity, land navigation, drill and ceremony and many other subjects. You may compete, if eligible, for scholarships that can pay for tuition, books and fees. The opportunity to attend this camp is limited. If interested, students should talk to a military science representative starting in January through April. Students can also earn up to 10 (free) credit hours for attending this camp.

Leadership Assessment and Development Course

The advanced course is open by permission only to juniors, seniors and graduate students pursuing a commission in the Army, Army Reserve or National Guard. Students accepted into the advanced course must agree to meet the curriculum requirements including attendance at a five-week summer leadership development and assessment course between the junior and senior year. They also agree to accept a commission as a second lieutenant upon graduation. All advanced course students receive a $450 to $500 per month allowance during the academic year.

Scholarships

The military science department provides extensive scholarship opportunities. Available scholarships range from programs that cover all tuition and fees plus provide a book and monthly living allowance, to programs that cover just tuition. Special scholarship consideration is provided for nursing and engineering
students. Information on all scholarships may be obtained from military science faculty.

**Army Nurse Corps**

The military science department offers a special program for nursing students designed to complement and enhance Pittsburg State University nursing instruction. Nursing students completing this program will earn a commission as a second lieutenant in the Army Nurse Corps. The classes provide instruction and laboratory opportunities in leadership, supervisory, organizational and sensitivity skills. It also provides a unique opportunity to practice clinical skills under the mentorship of an army nurse. Special scholarship opportunities are available to all nursing students.

**Veterans**

Veterans from all branches including members of the Reserve and National Guard receive special consideration in the military science program. This includes credit for military experience and special leadership and scholarship opportunities.

**Student Organizations**

Students are organized into cadet led units that provide the framework for laboratory and extracurricular activities and offer leadership opportunities for all students. The Ranger Challenge Team is a voluntary organization that emphasizes cohesion, esprit de corp and military skills. This group travels to compete with other colleges and universities throughout the Midwest. Students also participate in the unit’s color guard and cannon crew that perform at PSU sporting events and other community events.

**Minor in Military Science**

Students who complete at least 28 hours in military science fulfill the requirement for a minor for any baccalaureate degree. Students not desiring a minor in military science may apply up to 10 hours of military science credit to general electives towards a degree.

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**Military Science**

- MIL 100: Military Science I ............................................ 1
- MIL 102: Military Science I ............................................ 1
- MIL 103: Military Science I Laboratory ................................. 1
- MIL 200: Military Science II ............................................ 3
- MIL 202: Military Science II ............................................ 3
- MIL 300: Advanced Military Science III .............................. 3
- MIL 302: Advanced Military Science III .............................. 3
- MIL 303: Leadership Assessment and Development Course ............................................ 4
- MIL 400: Advanced Military Science IV .............................. 3
- MIL 402: Advanced Military Science IV .............................. 3

**Professional Military Education history course chosen from:**

- HIST 510: Modern Middle East ............................................ 3
- HIST 515: World War I .................................................. 3
- HIST 520: World War II .................................................. 3
- HIST 522: Korean and Vietnam Wars ................................. 3
- HIST 626: U.S. Iraq and Afghanistan ................................. 3
- HIST 656: Sectional Conflict and Civil War .......................... 3
- HIST 673: American Military Experience, 1607-1898 ................. 3
- HIST 674: American Military Experience, 1898 to Present .......................... 3
Modern Languages and Literatures

Chairperson: Judy A. Berry-Bravo
Professor(s): Judy A. Berry-Bravo*, **, Bert Patrick*
Associate Professor(s): Myriam Krepps*
Assistant Professor(s): Grant Moss, Eric Rojas
Instructors: Roberta Susan Shilane
Lecturer: Brett Smith

*Graduate Faculty
**University Professor

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Fax: http://www.pittstate.edu/department/languages/
E-mail: jberry-b@pittstate.edu

Undergraduate
Bachelor of Arts Degree with a Major in French
Bachelor of Arts Degree with a Major in Spanish
Bachelor of Science in Education Degree with a Major in French
Bachelor of Science in Education Degree with a Major in Spanish
Minor in French
Minor in Spanish

The Department of Modern Languages and Literatures offers courses leading to the Bachelor of Arts degree and the Bachelor of Science in Education degree with majors in French and Spanish. Minors in these languages are also available.

The department strongly supports the recommendation made in the report A Nation At Risk that high school students in a college-track program study a foreign language for two years at the high school level.

First and second year language courses offered by the department can be used by non-majors to fulfill the general education requirements in the languages and cultures or electives areas.

Study Abroad

The department strongly recommends that all Modern Languages and Literatures majors and minors participate in an accredited study abroad program. PSU offers study abroad scholarships as well as assistance with other financial aid. To learn about accredited programs, contact PSU’s Study Abroad Coordinator at 235-4221. For information on transfer credits, consult with the Chair of Modern Languages and Literatures.

Retro-Credits Program

A departmental retro-credits program allows students with significant prior experience studying French, Korean, Portuguese, Spanish or Russian to benefit in several ways. It is designed to reward deserving students who have already spent years studying languages in high school and to encourage those students to seek university-level courses in order to complete a minor or major. Students desiring credit for language proficiency acquired before coming to Pittsburg State University should consult any member of the Department of Modern Languages and Literatures.

Native Speakers

Native speakers are encouraged to take courses in French or Spanish. Students who graduated from high school in a French- or Spanish-speaking country may fulfill coursework for a major in French or Spanish by completing 15 hours of upper-division courses in literature and civilization. Native speakers of any language taught in the department are not allowed to enroll in lower-division courses in that language. Consult with the chairperson of the department.

Graduate Studies

Although the Department of Modern Languages and Literatures offers no master's degree, the department does offer, in cooperation with the College of Education, a 15-hour foreign language emphasis for the candidate for a Master of Science degree with a major in secondary teaching granted by the Department of Teaching and Leadership. Students involved in this program should be jointly advised by the Department of Teaching and Leadership and the Department of Modern Languages and Literatures.
The Department also cooperates with the Department of Teaching and Leadership to offer a Spanish or French emphasis through the Education Specialist degree program. The degree is granted by the Teaching and Leadership Department.

**Bachelor of Arts Degree with a Major in French**

**Bachelor of Arts**

A student seeking a Bachelor of Arts degree in the Department of Modern Languages and Literatures must follow the program outlined below for the French major. A minor is required for this degree and may be completed in a second foreign language or in some other field (English, history, technology, business administration, etc.). All persons seeking the Bachelor of Arts degree should consult the appropriate section of the catalog for the general description of this degree.

A French major for the BA degree requires 32 hours in the target language.

- **General Education Requirements for a Bachelor of Arts degree with a major in French.* (43-48 hours)**

- **Basic Skills (12 hours)**

- **General Education Electives (31-36 hours)**
  - **Sciences (8-9 hours)**
  - **Social Studies (3 hours)**
  - **Political Studies (3 hours)**
  - **Producing and Consuming (5-6 hours)**
  - **Fine Arts and Aesthetic Studies (2-3 hours)**
  - **Cultural Studies (0 hours)**

  (satisfied by MLL 326 French Conversation II and MLL 328 Readings in French Literature)

- **Health and Well Being (4-6 hours)**

- **Human Heritage (6 hours)**

* For specific general education course requirements see General Education Requirements for All Baccalaureate Degrees.

**Core Requirements for B.A. French Majors**

1. MLL 222: French Conversation I .......................... 2
2. MLL 224: French Grammar and Composition I .......... 3
3. MLL 321: French Grammar and Composition II ........ 3
4. MLL 326: French Conversation II .......................... 2
5. MLL 328: Readings in French Literature and Civilization I .................................................. 3
6. MLL 420: Readings in French Literature and Civilization II .................................................... 3
7. MLL 421: Advanced French Conversation ................. 2
8. MLL 427: French Culture and Civilization ................ 3
9. MLL 525: French Phonetics and Oral Practice ........... 2

- Approved Electives (9 hours upper-division)

**Minor in French**

**Core Requirements for French Minor (22 hours)**

1. MLL 222: French Conversation I .......................... 2
2. MLL 224: French Grammar and Composition I .......... 3
3. MLL 321: French Grammar and Composition II ........ 3
4. MLL 326: French Conversation II .......................... 2
5. MLL 328: Readings in French Literature and Civilization I .................................................. 3
6. MLL 420: Readings in French Literature and Civilization II .................................................... 3

- Approved Electives (6 hours upper-division)

**Bachelor of Arts Degree with a Major in Spanish**

**Bachelor of Arts**

A student seeking a Bachelor of Arts degree in the Department of Modern Languages and Literatures must follow the program outlined below for the Spanish major. A minor is required for this degree and may be completed in a second foreign language or in some other field (English, history, technology, business administration, etc.). All persons seeking the Bachelor
of Arts degree should consult the appropriate section of the catalog for the general description of this degree.

A Spanish major for the BA degree requires 32 hours in the target language.

General Education Requirements for a Bachelor of Arts degree with a major in Spanish.* (43-48 hours)

Basic Skills (12 hours)

General Education Electives (31-36 hours)
- Sciences (8-9 hours)
- Social Studies (3 hours)
- Political Studies (3 hours)
- Producing and Consuming (5-6 hours)
- Fine Arts and Aesthetic Studies (2-3 hours)
- Cultural Studies (0 hours)

(satisfied by MLL 356 Spanish Conversation II and MLL 358 Readings in Hispanic Literature and Civilization I)

Health and Well Being (4-6 hours)

Human Heritage (6 hours)

* For specific general education course requirements see General Education Requirements for All Baccalaureate Degrees.

Core Requirements for B.A. Spanish Majors
MLL 252: Spanish Conversation I ........................................... 2
MLL 254: Spanish Grammar and Composition I ............... 3
MLL 351: Spanish Grammar and Composition II ............ 3
MLL 356: Spanish Conversation II .................................... 2
MLL 358: Readings in Hispanic Literature and Civilization I ................................................................. 3
MLL 450: Readings in Hispanic Literature and Civilization II ................................................................. 3
MLL 451: Advanced Spanish Conversation ....................... 2
MLL 457: Hispanic Culture and Civilization .................... 3
MLL 555: Spanish Phonetics and Oral Practice ................ 2

- Approved Electives (9 hours upper-division)

Minor in Spanish

Core Requirements for Spanish Minor (22 hours)
MLL 252: Spanish Conversation I ................................. 2
MLL 254: Spanish Grammar and Composition I ........ 3
MLL 351: Spanish Grammar and Composition II ....... 3
MLL 356: Spanish Conversation II .............................. 2
MLL 358: Readings in Hispanic Literature and Civilization I ................................................................. 3
MLL 450: Readings in Hispanic Literature and Civilization II ................................................................. 3

- Approved Electives (6 hours upper-division)

Bachelor of Science in Education Degree with a Major in French

Bachelor of Science in Education

The Bachelor of Science in Education degree is designed to train prospective K-12 foreign language teachers. Students pursuing this degree must follow the programs outlined below. A minor is required for this degree and may be completed in a second foreign language or in some other field: (English, history, mathematics, biology, technology, etc.)

All persons seeking the Bachelor of Science in Education degree should consult the appropriate sections of this catalog for the specific requirements for this degree and the regulations concerning admission to teacher education.

A French teaching major for the Bachelor of Science in Education degree requires 35 hours.

General Education and Professional Requirements for a Bachelor of Science in Education degree with a major in French.*

Basic Skills (12 hours)

General Education Electives (31-36 hours)
- Sciences (8-9 hours)
- Social Studies (3 hours)
Political Studies (3 hours)
Producing and Consuming (5-6 hours)
Fine Arts and Aesthetic Studies (2-3 hours)
Cultural Studies (0 hours)

(satisfied by MLL 326 French Conversation II and MLL 328 Readings in French Literature and Civilization I)
Health and Well Being (4-6 hours)
Human Heritage (6 hours)

* For specific general education course requirements for secondary education, see General Education Requirements for Students Preparing to Teach Secondary School.

**French Teaching core requirements**
MLL 222: French Conversation I ......................... 2
MLL 224: French Grammar and Composition I .......... 3
MLL 321: French Grammar and Composition II ........ 3
MLL 326: French Conversation II ........................... 2
MLL 328: Readings in French Literature and Civilization I ......................................................... 3
MLL 420: Readings in French Literature and Civilization II .......................................................... 3
MLL 421: Advanced French Conversation ................ 2
MLL 427: French Culture and Civilization ................ 3
MLL 479: The Teaching of Languages ..................... 3
MLL 525: French Phonetics and Oral Practice ........... 2

• Approved Electives (9 hours upper division)

MLL 479 The Teaching of Languages requires admission to Teacher Education to enroll in the class.

**Professional Education Requirements**

** (35 hours)
EDUC 261: Explorations in Education .................... 3
PSYCH 263: Developmental Psychology .................. 3
PSYCH 357: Educational Psychology ..................... 3
MLL 479: The Teaching of Languages ..................... 3
SPED 510: Overview of Special Education .............. 3
EDUC 520: Methods and Materials for Academic Literacy ......................................................... 3

**Professional Semester (senior) (17 hours)**
Admission to Teacher Education (sophomore)

**Admission to Professional Semester (junior)**
EDUC 458: Methods and Curriculum .......................... 3
EDUC 462: Secondary and Middle Level Education ........................................................................ 2
EDUC 464: Foundations of Measurement and Evaluation ............................................................... 2
EDUC 480: Supervised Teaching in the Secondary School ............................................................ 3
EDUC 482: Supervised Teaching in the Secondary School ............................................................ 3
MLL 579: Supervised Student Teaching and Follow-Up of Teachers .............................................. 2

**See Admission to Professional Semester** for professional education grade point requirements.

PSYCH 357 Education Psychology, MLL 479 The Teaching of Languages, EDUC 520 Methods and Materials for Academic Literacy require admission to Teacher Education to enroll in these classes.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

**Bachelor of Science in Education Degree with a Major in Spanish**

**Bachelor of Science in Education**

The Bachelor of Science in Education degree is designed to train prospective K-12 foreign language teachers. Students pursuing this degree must follow the programs outlined below. A minor is required for this degree and may be completed in a second foreign language or in some other field: (English, history, mathematics, biology, technology, etc.)

All persons seeking the Bachelor of Science in Education degree should consult the appropriate sections of this catalog for the specific requirements for this degree and
the regulations concerning admission to teacher education.

A Spanish teaching major for the Bachelor of Science in Education degree requires 35 hours.

General Education and Professional Requirements for a Bachelor of Science in Education degree with a major in Spanish.* (43-48 hours)

Basic Skills (12 hours)
General Education Electives (31-36 hours)
Sciences (8-9 hours)
Social Studies (3 hours)
Political Studies (3 hours)
Producing and Consuming (5-6 hours)
Fine Arts and Aesthetic Studies (2-3 hours)
Cultural Studies (0 hours)

(satisfied by MLL 356 Spanish Conversation II and MLL 358 Readings in Hispanic Literature and Civilization)

Health and Well Being (4-6 hours)
Human Heritage (6 hours)

* For specific general education course requirements for secondary education, see General Education Requirements for Students Preparing to Teach Secondary School.

Spanish Teaching core requirements

MLL 252: Spanish Conversation I ......................... 2
MLL 254: Spanish Grammar and Composition I ........ 3
MLL 351: Spanish Grammar and Composition II ........ 3
MLL 356: Spanish Conversation II .......................... 2
MLL 358: Readings in Hispanic Literature and Civilization I ............................................ 3
MLL 450: Readings in Hispanic Literature and Civilization II ............................................. 3
MLL 451: Advanced Spanish Conversation ............... 2
MLL 457: Hispanic Culture and Civilization ................ 3
MLL 479: The Teaching of Languages ...................... 3

MLL 555: Spanish Phonetics and Oral Practice .......... 2

- Approved Electives (9 hours upper division)

Professional Education Requirements**
(35 hours)
EDUC 261: Explorations in Education ........................... 3
PSYCH 263: Developmental Psychology ...................... 3
PSYCH 357: Educational Psychology ......................... 3
MLL 479: The Teaching of Languages ....................... 3
SPED 510: Overview of Special Education .................. 3
EDUC 520: Methods and Materials for Academic Literacy ................................................. 3

Professional Semester (senior) (17 hours)
Admission to Teacher Education (sophomore)

EDUC 458: Methods and Curriculum ......................... 3
EDUC 462: Secondary and Middle Level Education ......... 2
EDUC 464: Foundations of Measurement and Evaluation ............................................... 2
EDUC 480: Supervised Teaching in the Secondary School .................................................... 3
EDUC 482: Supervised Teaching in the Secondary School ................................................... 5
MLL 579: Supervised Student Teaching and Follow-Up of Teachers .............................. 2

**See Admission to Professional Semester for professional education grade point requirements.

PSYCH 357 Education Psychology, MLL 479 The Teaching of Languages, EDUC 520 Methods and Materials for Academic Literacy require admission to Teacher Education to enroll in these classes.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.
Music

Chairperson: Russell L. Jones
Professor(s): Todd Hastings*, David Hurley*, Russell L. Jones*, Robert G. Kehle*,**, Susan J. Marchant*
Associate Professor(s): Joanne Britz*, Craig A. Fuchs*, Stella Hastings*, Matthew G. Montague*, Reena Natenberg, John Ross*, A. Douglas Whitten*
Assistant Professor(s): Carol Deats*
Instructors: Jim Clanton, T. Patrick Howle
Lecturers: Loretta M. Kehle
Adjuncts: Charles Beard, Lisa Gerstenkorn, Matthew Herren, Christina Webster

*Graduate Faculty
**University Professor

Room 103 McCray Hall
Telephone: 620-235-4466
Fax: 620-235-4468
http://www.pittstate.edu/department/music/
E-mail: rjones@pittstate.edu

Undergraduate
Bachelor of Arts Degree with a Major in Music
Bachelor of Music Degree with an Emphasis in Instrumental Performance
Bachelor of Music Degree with an Emphasis in Vocal Performance
Bachelor of Music Education Degree with an Instrumental Emphasis
Bachelor of Music Education Degree with a Vocal Emphasis
Minor in Music

Graduate
Master of Music

Mission Statement
In consonance with the mission, vision, and core values of Pittsburg State University, the Mission of the Department of Music is to

- instruct and inspire those whose professional goals include the creation, performance, critical assessment, and teaching of music;
- offer courses to the general student body that will enhance their understanding as well as appreciation of all music;
- provide leadership within the University and the four-state region in all matters pertaining to the musical art and to music;
- make available to the university community and to area residents opportunities to participate in musical activities. These include individual and group study and performance for pre-college and college students, as well as continuing music learning and performance experiences for the music faculty and those in the surrounding region;
- maintain and enhance our outreach and program of service and assistance to area public schools and other educational/professional organizations by acting as adjudicators, clinicians, guest conductors, consultants, and performers; and
- contribute to the enhancement of the cultural life of the University and the region through the performance and sponsorship of frequent and varied concerts and recitals.

General Information

The Department of Music is a member of the National Association of Schools of Music.

In order to fulfill its educational and cultural responsibilities, the department combines the broader aspects of music as an important part of past and present human experience with the artistic and professional requirements necessary for a successful career in music. The department prepares students for elementary and secondary music teaching, and it serves students pursuing objectives leading to college teaching and professional performance. The department attempts to provide optimum opportunity for achievement of excellence in both applied and academic music subjects in all degree programs.

The department sponsors numerous ensembles: Chorale, University Choir, and Jazz Choir; the Wind Ensemble and Symphonic Band, Marching Band, Basketball Pep Band, and Jazz Ensembles; the Symphony Orchestra, Chamber Orchestra, and the
Opera Workshop. These organizations, along with soloists and small ensembles from the students and faculty of the Department of Music, provide numerous concerts throughout the school year. In addition, the university sponsors two outstanding concert series by national and international guest artists, the Performing Arts and Lecture Series and the Solo and Chamber Music Series. The annual PSU Jazz Festival brings in national jazz artists and groups each year.

Participation in appropriate organizations is considered an important part of the training of those majoring and minoring in music. Each full-time undergraduate music major is required to participate in one or more large organization each enrollment period. Each voice major must enroll in a choral organization, each string major in orchestra, each wind or percussion major in band. Keyboard majors will be placed in an ensemble after consultation with their academic advisors. Wind and percussion majors will be offered additional performance opportunities in Orchestra and Jazz Ensemble on the basis of audition. Voice students will be offered additional performance opportunities in Opera Workshop, Chorale and Jazz Choir on the basis of audition.

Details for all programs are available from the departmental office.

**Baccalaureate Degrees**

Three degrees are available at the undergraduate level for students majoring in music: The Bachelor of Music Education, the Bachelor of Music, and the Bachelor of Arts with a major in Music.

The Bachelor of Music Education prepares students for Kindergarten through 12th grade licensure as a public school music teacher. Because this degree program is a composite of music and education, it attracts many outstanding musical performers who wish to share with others the meaningful musical and educational experiences they have enjoyed. Graduates in Music Education may obtain a teaching position, pursue graduate work, or use the degree as professional training for other areas of specialization. The degree requires more than the minimum hours for graduation. Depending upon their academic and music preparation for college, students will take between four and five years to complete the degree.

The program leading to the professional degree Bachelor of Music in performance is designed for the gifted musical performer who aspires to a career in college teaching, private teaching, or professional performance. The student chooses piano, organ, harpsichord, voice, or a member of the string, wind, or percussion families of instruments as the performance medium. This degree should be considered as preparation for study at the masters level and beyond.

The Bachelor of Arts degree follows the broadest aspect of a college education with an emphasis in Music. In contrast to the Bachelor of Music or Bachelor of Music Education programs, the Bachelor of Arts students will complete a minor area of study and many will choose to declare a double major. The degree can prepare one for graduate study leading to the Master of Arts and Doctor of Philosophy degrees, as well as careers based on cultural concerns or in music-related fields. This degree can also be oriented toward pre-professional or social and/or business opportunities.

Both the Bachelor of Music Education and the Bachelor of Music degree programs may be pursued concurrently and may be completed in approximately five years, depending upon a student's academic and musical preparation before matriculating at PSU. Both degrees must be awarded simultaneously.

Each full-time major must also enroll in Recital Hour during each enrollment period or for seven semesters, whichever is less.

**Graduate Degrees**

The Department of Music offers courses leading to the degree of Master of Music with emphases in the following areas: performance (voice, piano, violin, etc.), instrumental music education, vocal music education, choral conducting and wind conducting. The prerequisite to work on the degree is the completion of a four-year degree program comparable to the Bachelor of Music or Bachelor of Music Education granted by this institution.
Admission to the graduate program in music is based upon satisfactory completion of the Graduate Entrance Examination, along with an evaluation of the undergraduate transcripts and personal interview. The departmental entrance exam is given prior to the first week of classes of each semester to entering degree and non-degree seeking graduate students. For all potential graduate majors, the exam consists of music theory, music history and music literature. Performance majors must audition.

The Masters degree is designed to provide advanced training to prepare students for enhanced career opportunities as well as for further study at the doctoral level. Although the training varies according to the emphasis, this preparation includes, for all students, improving interpretive and technical skills in performance and/or conducting, as well as the ability to analyze and write about music.

A minimum of twenty-eight hours of acceptable courses in music with four hours of thesis, totaling a minimum of thirty-two hours, satisfies the degree requirement. Full-time graduate students receiving departmental financial assistance through a scholarship or GTA position, as well as part-time graduate students who are not actively engaged in music making activities may be required to enroll in a major ensemble each semester of enrollment. These hours may or may not count towards the 32 candidacy hours for the degree, depending on the area of emphasis.

Bachelor of Arts Degree with a Major in Music

Applied Music (17 hours)
MUSIC 250: Applied Music (___) ....................... 1/2-3
and MUSIC 450: Applied Music (___) .................... 1-3
MUSIC 131: Piano Class ..................................... 1
and MUSIC 132: Piano Class .................................. 1
MUSIC 231: Intermediate Piano Class ..................... 1
and MUSIC 232: Intermediate Piano Class ............... 1
MUSIC 191: Recital Hour .................................... 0
and MUSIC 391: Recital Hour ............................... 0
MUSIC 492: Senior Recital (___) .......................... 1
or MUSIC 493: Senior Project .............................. 1

MUSIC 250/450 (six semesters of two credit lessons) (12 hours)

Students must pass MUSIC 131, 132 Piano Class and MUSIC 231, 232 Intermediate Piano Class with a "C" or better or pass the piano proficiency examination.

MUSIC 191/391 each semester for seven semesters

Music Theory (16 hours)
MUSIC 111: Aural Skills and Theory I .................... 4
MUSIC 113: Aural Skills and Theory II .................... 4
MUSIC 211: Aural Skills and Theory III ................... 4
MUSIC 213: Aural Skills and Theory IV ................... 4

A grade of “C” or better is required in all courses listed above.

New freshmen are given a placement test in music theory to determine whether they have sufficient background to enter MUSIC 111 Aural Skills and Theory I. Those lacking this background are advised to elect MUSIC 109 Aural Skills and Theory Fundamentals, 4 hours.

Music History and Literature (8 hours)
MUSIC 121: Introduction to Music Literature .......... 2
MUSIC 321: History of Music ............................... 3
MUSIC 322: History of Music ............................... 3

Music Ensembles (8 hours)

Instrumental
Wind or percussion majors take MUSIC 156, 356 Band (___), string majors take MUSIC 176, 376 Orchestra, keyboard majors choose between MUSIC 156, 356 Band, MUSIC 176, 376 Orchestra or MUSIC 187, 387 University Choir (minimum requirement). Required each semester for each full-time student.

Vocal
MUSIC 187/387 University Choir (minimum requirement) (8 hours)

Required each semester for each full-time student.
**Foreign Language (10 hours)**
10 hours in one language required for BA degree

**General Education (41-46 hours)**
Some general education courses are met by major requirements listed above.

**Required Minor (20 hours)**
- Each student must select one minor of at least 20 semester hours
- Electives (0-4 hours)

TOTAL MINIMUM HOURS REQUIRED (124-125 hours)

**Bachelor of Music Degree with an Emphasis in Instrumental Performance**
The student chooses piano, organ, harpsichord, or a member of the string, wind or percussion families of instruments as the performance medium.

**Applied Music (34 hours)**
- Applied Major (courses at the 200 and 400 levels) (24 hours)
- Secondary Applied (4 hours)

Those students having wind, string or percussion instrument as their applied major must enroll in MUSIC 131, 132 Piano Class and MUSIC 231, 232 Intermediate Piano Class and/or applied piano (this may exceed 4 hours). Students must pass MUSIC 131, 132 Piano Class and MUSIC 231, 232 Intermediate Piano Class with a “C” or better and/or pass the piano proficiency examination. The piano proficiency examination may be taken any semester. Those who pass will be excused from further piano requirements.

Keyboard majors, later in the program, substitute MUSIC 377 Accompanying Techniques, 2 hours, and MUSIC 723 Piano Literature (____), 3 hours, or MUSIC 710 Organ Seminar (____), 2 hours. They should take the piano proficiency examination early in their program.

MUSIC 131: Piano Class ........................................... 1
and MUSIC 132: Piano Class .................................... 1

MUSIC 231: Intermediate Piano Class ....................... 1
and MUSIC 232: Intermediate Piano Class .................. 1
MUSIC 377: Accompanying Techniques .................... 2
and MUSIC 723: Piano Literature (____) .................... 3
or MUSIC 710: Organ Seminar (____) ...................... 2
MUSIC 191: Recital Hour ...................................... 0
and MUSIC 391: Recital Hour .................................. 0
MUSIC 326: Pedagogy/Literature (____) .................... 1-3
or MUSIC 379: Piano Pedagogy I .............................. 3
MUSIC 378: Chamber Music (____) (subject such as Brass, Strings, etc) ................................................................. 1
MUSIC 392: Junior Recital (____) .............................. 0
MUSIC 492: Senior Recital (____) .............................. 1

MUSIC 191/391 each semester for seven semesters.

MUSIC 326 must be taken for 3 hours.
Keyboard Majors elect MUSIC 379
MUSIC 378 repeat for 2 hours

**Music Theory (27 hours)**
MUSIC 111: Aural Skills and Theory I ....................... 4
MUSIC 113: Aural Skills and Theory II .................... 4
MUSIC 211: Aural Skills and Theory III ................... 4
MUSIC 213: Aural Skills and Theory IV ................... 4
MUSIC 311: Composition ..................................... 3
MUSIC 413: Orchestration ................................... 3
MUSIC 414: Forms and Analysis ............................... 2
MUSIC 511: Counterpoint ................................. 3

A grade of "C" or better is required in MUSIC 111, MUSIC 113, MUSIC 211, and MUSIC 213.

**Music Education (4 hours)**
MUSIC 238: Basic Conducting .............................. 2
MUSIC 338: Instrumental Conducting .................... 2
or MUSIC 337: Choral Conducting ...................... 2

Keyboard majors may substitute MUSIC 337

**Music History and Literature (8 hours)**
MUSIC 121: Introduction to Music Literature ............ 2
MUSIC 321: History of Music ............................. 3
and MUSIC 322: History of Music ...................... 3
MUSIC 321 History of Music will satisfy the Fine Arts (2-3 hours) sections of the general education requirement for the music major with an Instrumental Performance emphasis.

**Music Ensembles (8 hours)**

Wind or percussion majors take MUSIC 156, 356 Band (___), string majors take MUSIC 176, 376 Orchestra, keyboard majors choose between MUSIC 156, 356 Band (___), MUSIC 176, 376 Orchestra or MUSIC 187, 387 University Choir (minimum requirement). Required each semester for each full-time student.

**Foreign Language (5 hours)**

MLL 124: French Language and Culture I .................5

MLL 124 French Language and Culture I will satisfy the Languages and Cultures (3-5 hours) section of the general education requirement for the music major with an Instrumental Performance emphasis.

**General Education Requirement (41-46 hours)**

TOTAL hours for Bachelor of Music Degree with an Instrumental Performance Emphasis (127-132 hours)

**Bachelor of Music Degree with an Emphasis in Vocal Performance**

**Applied Music (40 hours)**

- Applied Major (courses at 200 and 400 levels) (24 hours)
- Secondary Applied (4 hours)

MUSIC 131, 132 Piano Class and MUSIC 231, 232 Intermediate Piano Class and/or applied piano (this may exceed 4 hours). Students must enroll in and pass MUSIC 131, 132 Piano Class and MUSIC 231, 232 Intermediate Piano Class with a “C” or better and/or pass the piano proficiency examination. The piano proficiency examination may be taken any semester; those who pass will be excused from further secondary piano requirements.

MUSIC 131: Piano Class ......................................1
and MUSIC 132: Piano Class ..................................1
MUSIC 231: Intermediate Piano Class .....................1
and MUSIC 232: Intermediate Piano Class ................1
MUSIC 191: Recital Hour ....................................0
and MUSIC 391: Recital Hour .................................0
MUSIC 288: Applied Diction for Singers I ..............1
and MUSIC 289: Applied Diction for Singers II ........1
MUSIC 279: Opera Workshop ................................1-3
and MUSIC 479: Opera Workshop ..........................1-3
MUSIC 326: Pedagogy/Literature (___) ..................1-3
MUSIC 392: Junior Recital (___) .............................0
MUSIC 492: Senior Recital (___) .............................1

MUSIC 191/391 each semester for seven semesters

MUSIC 279/479 must be taken for six hours.

MUSIC 326 must be taken for 3 hours.

**Music Theory (21 hours)**

MUSIC 111: Aural Skills and Theory I .....................4
MUSIC 113: Aural Skills and Theory II ....................4
MUSIC 211: Aural Skills and Theory III ..................4
MUSIC 213: Aural Skills and Theory IV ..................4
MUSIC 414: Forms and Analysis ............................2
MUSIC 511: Counterpoint ....................................3

A grade of "C" or better is required in MUSIC 111, MUSIC 113, MUSIC 211, and MUSIC 213.

**Music Education (4 hours)**

MUSIC 238: Basic Conducting ...............................2
MUSIC 337: Choral Conducting ...............................2

**Music History and Literature (11 hours)**

MUSIC 121: Introduction to Music Literature ............2
MUSIC 321: History of Music .................................3
and MUSIC 322: History of Music ...........................3
MUSIC 722: History of Solo Vocal Repertoire ............3
Music Organization (8 hours)
MUSIC 187: University Choir ........................................... 1
and MUSIC 387: University Choir .................................... 1

Minimum requirement is eight hours. Required each semester for each full-time student.

Foreign Language (10 hours)
MLL 124: French Language and Culture I ...................... 5
MLL 128: French Language and Culture II .................... 5

MLL 124 French Language and Culture I will satisfy the Languages and Cultures (3-5 hours) section of the general education requirement for the music major with a Vocal Performance emphasis.

General Education Requirement (35-40 hours)

TOTAL hours required for Bachelor of Music Degree with a Vocal Performance Emphasis (129-134 hours)

Bachelor of Music Education Degree with an Instrumental Emphasis

Applied Music (19 hours)

- Applied Major (courses at the 200 and 400 levels) (14 hours)
- Secondary Applied (4 hours)

Those students having wind, string or percussion instrument as applied major enroll in MUSIC 131,132 Piano Class and MUSIC 231, 232 Intermediate Piano Class and/or applied piano (this may exceed 4 hours).

Students must pass MUSIC 131, 132 Piano Class and MUSIC 231, 232 Intermediate Piano Class with a “C” or better and/or pass the piano proficiency examination. The piano proficiency examination may be taken any semester; those who pass will be excused from further piano requirements. All students, including keyboard majors, must meet piano proficiency requirements before admission to the professional semester.

Music Theory (19 hours)
MUSIC 111: Aural Skills and Theory I ............................ 4
MUSIC 113: Aural Skills and Theory II .......................... 4
MUSIC 211: Aural Skills and Theory III ......................... 4
MUSIC 213: Aural Skills and Theory IV .......................... 4
MUSIC 413: Orchestration ........................................... 3

A grade of "C" or better is required in MUSIC 111, MUSIC 113, MUSIC 211, and MUSIC 213.

Music Education (24 hours)
MUSIC 238: Basic Conducting ........................................ 2
MUSIC 241: Introduction to Music Education .................. 1
MUSIC 330: Woodwind Techniques .............................. 2
MUSIC 331: Brass Techniques ..................................... 1
MUSIC 333: Percussion Techniques .............................. 1
MUSIC 336: Vocal Techniques ..................................... 1
MUSIC 337: Choral Conducting .................................... 2
MUSIC 338: Instrumental Conducting ............................ 2
MUSIC 340: Organization of the Instrumental Music Program ...................................................... 3
MUSIC 342: String Techniques ..................................... 1
MUSIC 344: Marching Band Techniques ......................... 1
MUSIC 345: Jazz Ensemble Techniques ......................... 1
MUSIC 431: Teaching Music in the Schools, Pre-K-8 .................................................... 3
MUSIC 432: Secondary Choral Methods ......................... 3

Music History and Literature (8 hours)
MUSIC 121: Introduction to Music Literature ............ 2
MUSIC 321: History of Music .................................... 3
and MUSIC 322: History of Music .............................. 3
MUSIC 321 History of Music will satisfy the Fine Arts area of general education.

**Music Ensembles (7 hours)**
Wind or percussion majors take MUSIC 156, 356 Band (___), string majors take MUSIC 176, 376 Orchestra; keyboard majors choose between MUSIC 156, 356 Band, MUSIC 176, 376 Orchestra or MUSIC 187, 387 University Choir (minimum requirement). Required each semester for each full-time student.

**General Education Requirement (38-45 hours)**

**Professional Education* (12 hours)**
PSYCH 263: Developmental Psychology .......................... 3
PSYCH 357: Educational Psychology ............................ 3
SPED 510: Overview of Special Education ...................... 3
EDUC 520: Methods and Materials for Academic Literacy ............................................................................. 3

* See Admission to Professional Semester for professional education grade point requirements.

PSYCH 357 Educational Psychology and EDUC 520 Methods and Materials for Academic Literacy require admission to Teacher Education prior to enrollment.

**Professional Semester (17 hours)**
EDUC 458: Methods and Curriculum ............................. 3
EDUC 462: Secondary and Middle Level Education ........... 2
EDUC 464: Foundations of Measurement and Evaluation ................................................................. 2
EDUC 475: Supervised Teaching in the Elementary School .................................................................. 3
EDUC 482: Supervised Teaching in the Secondary School .................................................................. 3
MUSIC 579: Supervised Student Teaching and Follow-Up of Teachers ............................................. 5

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

TOTAL hours for Bachelor of Music Education (144-151 hours)

**Bachelor of Music Education Degree with a Vocal Emphasis**

**Applied Music (21 hours)**
- Applied Major (courses at the 200 and 400 levels)* (14 hours)
- Secondary Applied**

Students must enroll in MUSIC 131,132 Piano Class and MUSIC 231, 232 Intermediate Piano Class and/or applied piano (this may exceed 4 hours). Students must pass MUSIC 131, 132 Piano Class and MUSIC 231, 232 Intermediate Piano Class with a “C” or better and/or pass the piano proficiency examination. The piano proficiency examination may be taken any semester; those who pass will be excused from further piano requirements. All students, including keyboard majors, must meet piano proficiency requirements before admission to the professional semester.

MUSIC 131: Piano Class ........................................... 1
and MUSIC 132: Piano Class .................................... 1
MUSIC 231: Intermediate Piano Class ....................... 1
and MUSIC 232: Intermediate Piano Class .............. 1
MUSIC 288: Applied Diction for Singers I ................. 1
MUSIC 289: Applied Diction for Singers II .............. 1
MUSIC 191: Recital Hour ....................................... 0
and MUSIC 391: Recital Hour ............................... 0
MUSIC 492: Senior Recital (___) .......................... 1

MUSIC 191/391 each semester for seven semesters
* Select either Voice or Piano.

**If Piano is selected for Applied Music area, Secondary Applied area must be Voice.

**Music Theory (16 hours)**
MUSIC 111: Aural Skills and Theory I ....................... 4
MUSIC 113: Aural Skills and Theory II .................... 4
MUSIC 211: Aural Skills and Theory III ...................... 4
MUSIC 213: Aural Skills and Theory IV ...................... 4

A grade of "C" or better is required.

Music Education (25 hours)
MUSIC 238: Basic Conducting .................................. 2
MUSIC 241: Introduction to Music Education ............. 1
MUSIC 326: Pedagogy/Literature (____) ................. 1-3
MUSIC 330: Woodwind Techniques ....................... 2
MUSIC 331: Brass Techniques .............................. 1
MUSIC 333: Percussion Techniques ......................... 1
MUSIC 337: Choral Conducting ............................. 2
MUSIC 338: Instrumental Conducting ..................... 2
MUSIC 340: Organization of the Instrumental Music Program .................................................. 3
MUSIC 342: String Techniques ............................... 1
MUSIC 344: Marching Band Techniques .................. 1
MUSIC 345: Jazz Ensemble Techniques .................... 1
MUSIC 431: Teaching Music in the Schools, Pre-K-8 ................................................................. 3
MUSIC 432: Secondary Choral Methods ................... 3

MUSIC 326 must be taken for two hours.

Music History and Literature (8 hours)
MUSIC 121: Introduction to Music Literature ........... 2
MUSIC 321: History of Music ................................ 3
and MUSIC 322: History of Music ........................ 3

MUSIC 321 History of Music will satisfy the Fine Arts area of general education.

Music Ensembles (7 hours)
MUSIC 187: University Choir .................................. 1
and MUSIC 387: University Choir .......................... 1

Minimum requirement is seven hours. Required each semester for each full-time student.

General Education Requirement (38-45 hours)

Professional Education* (12 hours)
PSYCH 263: Developmental Psychology ................. 3
PSYCH 357: Educational Psychology ...................... 3
SPED 510: Overview of Special Education .............. 3
EDUC 520: Methods and Materials for Academic Literacy ......................................................... 3

* See Admission to Professional Semester for professional education grade point requirements.

PSYCH 357 Educational Psychology and EDUC 520 Methods and Materials for Academic Literacy require admission to Teacher Education prior to enrollment.

Professional Semester (17 hours)
EDUC 458: Methods and Curriculum .................... 3
EDUC 462: Secondary and Middle Level Education ................................................................. 2
EDUC 464: Foundations of Measurement and Evaluation ......................................................... 2
EDUC 475: Supervised Teaching in the Elementary School ..................................................... 3
EDUC 482: Supervised Teaching in the Secondary School ....................................................... 5
MUSIC 579: Supervised Student Teaching and Follow-Up of Teachers .................................. 2

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburgh State University.

TOTAL hours for Bachelor of Music Education (144-151 hours)

Minor in Music
A minor in music (non-teaching, 20 hours minimum) is available in the various baccalaureate degrees. Hours earned at other institutions may count towards the minor if they fulfill the requirements. In some instances, adjustments may be made to the requirements. Details of the minor should be planned in consultation with a Department of Music faculty member and the approval of the Chairperson of the
Department of Music early in the student's academic program.

**Music Theory (4-8 hours)**
Students must complete MUSIC 111 Aural Skills and Theory I with a grade of C or better. Students may be required to pass MUSIC 109 Aural Skills and Theory Fundamentals as a pre-requisite to MUSIC 111 Aural Skills and Theory I. Additional hours, including MUSIC 109 Aural Skills and Theory Fundamentals, may be counted as electives if needed.

MUSIC 111: Aural Skills and Theory I ..........................4
MUSIC 109: Aural Skills and Theory Fundamentals
.............................................................................. 4

**Music History and Literature (5-6 hours)**
Students must complete two enrollments in this area, with a few possible combinations of courses available.

**Option 1 (5 hours)**
MUSIC 120: Music Appreciation (___) .........................3
MUSIC 121: Introduction to Music Literature ..................2

**Option 2 (6 hours)**
MUSIC 321: History of Music .....................................3
MUSIC 322: History of Music .....................................3

**Option 3 (6 hours)**
MUSIC 120: Music Appreciation (___) .........................3
MUSIC 321: History of Music .....................................3
MUSIC 322: History of Music .....................................3

**Applied Music (4 hours minimum)**
Students must complete four enrollments of applied lessons (1 credit each) with a grade of C or better in their primary performance area. Additional hours may be taken and counted as electives if needed.

**Music Ensemble (4 hours)**
Students must complete 4 credit hours of ensemble enrollments (1 credit each) with a grade of C or better. Additional hours may be taken and counted as electives if needed.

**Music Electives (2-3 hours)**
Students may select from any of the Department of Music course offerings to meet the required 20 hour minimum to achieve the Minor in Music.

**Master of Music**

**Core (Required of all graduate students in Music) (9 hours)**
MUSIC 810: Analytical Techniques .................................. 3
MUSIC 822: Introduction to Graduate Study in Music .................................................. 2
MUSIC 890: Thesis ..................................................... 1-6

1MUSIC 890 is needed for four hours.

**Performance- Orchestral Instrument Emphasis (32 hours)**
(Winds, Strings, Percussion)

- Core (9 hours)
- Major performance instrument (800 level) (4 hours)

MUSIC 756: Band (___) ........................................... 1
or MUSIC 776: Orchestra ............................................. 1
MUSIC 728: Pedagogy/Literature (___) ......................... 3
MUSIC 738: Advanced Instrumental Conducting I ........... 3
MUSIC 778: Advanced Chamber Music (___) (subject, such as Brass, Strings, etc) ......................... 1

- Guided Music Electives\(^3\) (9 hours)

MUSIC 756 or 776 repeat for 2 hours
MUSIC 778 repeat for 2 hours

**Performance- Emphasis in Organ, Piano or Harpsichord (32 hours)**

- Core (9 hours)
- Major performance instrument (800 level)\(^3\) (4 hours)
MUSIC 710: Organ Seminar (___) .......................... 2
or MUSIC 723: Piano Literature (___) .......................... 3
MUSIC 736: Advanced Choral Conducting .................. 3
or MUSIC 747: Piano Pedagogy I .............................. 2
MUSIC 777: Art of Accompanying ............................ 2
MUSIC 778: Advanced Chamber Music (___) (subject, such as Brass, Strings, etc) .................. 1

- Guided Music electives^2 (9-11 hours)

MUSIC 778 repeat for 2 hours

At the end of the first two semesters of study, a solo recital of 30 minutes minimum is required for piano emphasis.

**Vocal Performance Emphasis (32 hours)**

Conducting and Voice majors must complete an audition/interview.

- Core (9 hours)

MUSIC 722: History of Solo Vocal Repertoire ............ 3
MUSIC 779: Opera Workshop .................................. 1-3
MUSIC 819: History of Opera ................................. 3
MUSIC 828: Advanced Vocal Pedagogy .................... 3
MUSIC 850: Applied Music (___) ............................ 1-4

- Guided Music electives^2 (7 hours)

MUSIC 779 Opera Workshop must be taken for 3 hours.

MUSIC 850 Applied Music requires audition for Graduate Committee to enroll and must be taken for four hours.

**Instrumental Music Education Emphasis (32 hours)**

- Core (9 hours)

MUSIC 738: Advanced Instrumental Conducting I ........ 3
MUSIC 750: Applied Music (___) ............................ 1/2-3
MUSIC 832: Directed Study in Music Education (___) ......................................................... 3
MUSIC 835: Foundations of Music Education ............ 3
MUSIC 836: Psychology of Music Teaching ............... 3

- Guided Music electives^2 (8 hours)

MUSIC 750 should be taken for 3 hours.

**Vocal Music Education Emphasis (32 hours)**

- Core (9 hours)

MUSIC 731: Choral Techniques ............................... 3
MUSIC 736: Advanced Choral Conducting .............. 3
MUSIC 832: Directed Study in Music Education (___) ......................................................... 3
MUSIC 835: Foundations of Music Education ............ 3
MUSIC 836: Psychology of Music Teaching ............... 3

- Guided Music electives^2 (8 hours)

**Choral Conducting Emphasis (32 hours)**

Conducting and Voice majors must complete an audition/interview.

- Core (9 hours)

MUSIC 731: Choral Techniques ............................... 3
MUSIC 736: Advanced Choral Conducting .............. 3
MUSIC 831: Choral Literature (___) ........................... 3
MUSIC 837: Advanced Choral Conducting II ............. 3

- Music Theory, History, and Performance electives^2 (6 hours)
- Music Education electives (2 hours)
- Guided Music electives (3 hours)

**Wind Conducting Emphasis (32 hours)**

- Core (9 hours)

MUSIC 738: Advanced Instrumental Conducting I ........ 3
MUSIC 741: Band Literature and Methods .................. 3
MUSIC 829: The History of the Wind Band ................. 3
MUSIC 835: Foundations of Music Education ............ 3
MUSIC 836: Psychology of Music Teaching ............... 3
MUSIC 838: Advanced Instrumental Conducting II ........ 3
Music electives (5 hours)
MUSIC 750: Applied Music (___) .......................... 1/2-3
MUSIC 750: Applied Music (___) .......................... 1/2-3

- Music elective^4 (1 hour)

MUSIC 750 Applied Music: Candidates must take a semester of lessons in their primary area as well as a secondary area. For example, a woodwind person would take one semester of applied on their primary instrument, as well as a semester of applied percussion or applied brass. Additional enrollments of applied instruction are encouraged. A total of four hours is required.

1. For performance emphases, a one hour (50 minutes of music) graduate recital(s) and supporting document fulfill requirements for MUSIC 890 Thesis. For all others, a written thesis is required.

2. At least one three hour course in Music History is required in the electives.

3. Audition for Graduate Committee required to enroll.

4. Part-time students are required to participate in at least one enrollment of an ensemble. The Pittsburg Community Band or other community/professional ensembles can be accepted upon consultation with the advisor.
Nursing

Chairperson: Mary Carol Pomatto  
Professor(s): Cheryl Giefer*, **, Barbara R. McClaskey*, and Mary Carol Pomatto*, **  
Associate Professor(s): Janis Schiefelbein*  
Assistant Professor(s): Amy Hite  

*Graduate Faculty  
**University Professor

Room 101 McPherson  
Telephone: 620-235-4431  
Fax: 620-235-4449  
http://www.pittstate.edu/department/nursing/  
E-mail: nurs@pittstate.edu

Undergraduate  
Bachelor of Science in Nursing

Graduate  
Master of Science in Nursing

Bachelor of Science in Nursing  
The Department of Nursing offers a program leading to the degree Bachelor of Science in Nursing with a major in nursing, in two tracks, the Pre-RN Licensure Track and the RN to BSN Track.

The curriculum prepares students for professional nursing in acute care agencies and in community health settings.

Pre-RN Licensure Track

Graduates are eligible to write the NCLEX-RN examination in any state. After initial licensure, the nurse may be licensed by endorsement in other states.

The program in nursing is approved by the Kansas State Board of Nursing and is accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, 202-887-6791.

Students seeking the Bachelor of Science in Nursing degree must meet all requirements for baccalaureate degrees from this institution including general education (see General Education Requirements for All Baccalaureate Degrees). Department requirements for the degree include prescribed background courses and a 63-71 hour major in nursing. (RN to BSN Track students complete a 68-75 hour major in nursing).

Students are admitted to the upper division clinical nursing courses following satisfactory completion of 62-66 semester hours including the following required background courses: PSYCH 155 General Psychology, SOC 100 Introduction to Sociology, MATH 110 College Algebra with Review or MATH 113 College Algebra or MATH 126 Pre-Calculus, BIOL 257/258 Anatomy and Physiology/Laboratory, BIOL 371/372 General Microbiology/Laboratory, CHEM 105/106 Introductory Chemistry/Laboratory or CHEM 107/108 Chemistry for Life Sciences/Laboratory, PSYCH 263 Developmental Psychology or FCS 285 Lifespan Human Development, and FCS 301 Nutrition or FCS 203 Nutrition and Health. An overall grade point average of 2.50 or above, as well as a 2.50 or above grade point average for BIOL 111/112 General Biology/Laboratory, BIOL 257/258 Anatomy and Physiology/Laboratory, BIOL 371/372 General Microbiology/Laboratory, CHEM 105/106 Introductory Chemistry/Laboratory or CHEM 107/108 Chemistry for Life Sciences/Laboratory, and MATH 110 College Algebra with Review or MATH 113 College Algebra or MATH 126 Pre-Calculus, and a grade of “C” or above for all nursing prerequisite courses is necessary for an applicant to be considered. No more than two of these may be repeated to remove a “D” or “F” grade. Additional requirements include submission of Department of Nursing Health Form, documentation of immunizations, three professional references, transcripts, application form, application fee, and consent and fees for a state and national background check, and SRS Child Abuse background check. Applicants with a criminal history (includes diversions, misdemeanors and felonies) as well as arrests for which action is still pending will be evaluated on an individual basis, with no guarantee of admission. There are
specific requirements for reporting criminal history on the application for admission. A student who is born outside of the United States is required to submit proof that he or she has taken and passed the TOEFL iBT (Test of English as a Foreign Language-Internet Based Test). Minimum scores for the TOEFL iBT are as follows: Writing-20; Speaking-20; Reading-19; Listening-20, for a total of 79. Each area must meet the minimum requirement. A personal interview may be required.

**The Pittsburg State University nursing program requires applicants and admitted clinical nursing students to:**

Notify the Department of Nursing in writing of any disciplinary action against ALL licenses, certifications and/or registrations as well as disciplinary action by a state board or governmental agency. (Some examples are): Driver’s License; Fishing License; Hunting License; Day Care License; Nursing Home Administrator License; Nursing License in Kansas or another state; CNA/CMA/HHA certification; School Teacher certification; Dishonorable discharge and/or other than honorable discharge from any branch of the military, disciplinary sanction from any branch of the military.

If disciplinary action has ever been taken against your driver’s license or other license, registration or certification, in Kansas or any other state, (for any reason), you are required to provide an explanatory letter regarding the disciplinary action(s) taken against your driver’s license or other license, registration or certification. Your letter should include the following for each disciplinary action:

- Circumstances leading up to the disciplinary action;
- Date of the disciplinary action; actual disciplinary action; current status of the disciplinary action. The applicant may be required to provide certified/dated copies of disciplinary documents.

**Failure to notify the department on the application or within one day after admission, if a new action since application, may result in dismissal or suspension until the legal issue is resolved.** Continuance in the major will be individually evaluated and will be at the sole discretion of the Pittsburg State University Department of Nursing. **NOTE: The Kansas State Board of Nursing and other state nursing boards have specific procedures for reporting disciplinary action on nursing applications (initial, reinstatement and endorsement). The procedures are accessible by contacting the respective boards.**

Class sizes in clinical nursing courses are restricted; therefore, admission to the Department of Nursing is competitive. All pre-nursing students must file an application with the Department of Nursing for admission to upper division nursing courses. The application should be submitted by December 15 prior to the intended fall enrollment in the nursing program. Qualified late applicants will be accepted if spaces are available.

Any student request for exception or waiver of any published admission requirement including but not limited to specific course requirements must be made in writing in formal letter and addressed to the Chair of the Department of Nursing. Written requests will only be accepted per registered mail. The request must be accompanied by a written explanation to assist in arriving at a fair decision. Granted or denied waivers or exceptions will be made in writing in formal letter from the Chair of the Department of Nursing and will be sent per registered mail. The Department of Nursing assumes no responsibility to grant waivers or exceptions that are not made according to this protocol. Students are responsible for obtaining the information that they need in order to know, understand, and meet admission requirements.

Supervised experience in health agencies is an integral part of every clinical nursing course. The clinical assignments are in a variety of settings off-campus. Students are responsible for their own transportation, current certification in cardiopulmonary resuscitation (CPR), current certification as a state certified nurse aide (CNA), and liability insurance. Students can expect to spend 12-18 hours per week in the clinical areas in addition to class time. ACT exam results must be provided. All students will participate in a standardized testing program. Testing costs are the responsibility of the student. For full admission status, the national benchmark must be met on the Test of Essential Academic Skills (TEAS). The TEAS must be taken at PSU.
at applicant's cost. One retake is acceptable. TEAS test dates will be posted on the department website with program applications.

It is recommended that all clinical nursing majors have health insurance.

A grade below "C" represents work of insufficient quality, not adequate to pursue subsequent courses. For this reason, a student making a "D" or "F" grade in a required course will not be permitted to continue in the nursing major or to graduate. (No credit is allowed toward graduation for “Ds” or “Fs” in nursing courses.)

Unprofessional and/or unethical behavior is considered grounds for immediate dismissal from the nursing program.

The Department of Nursing reserves the right to make changes if necessary. Please consult the Department of Nursing website www.pittstate.edu/nurs and current BSN program booklet for any recent changes.

**Time Limit to Complete Degree**

Nursing credits toward the upper division major in nursing at Pittsburg State University which have been earned more than ten years prior to the time the candidate receives the degree cannot be counted to meet requirements for the degree unless validated by repeating coursework or by special examination.

**RN to BSN Track**

The Department of Nursing offers licensed Registered Nurses the opportunity to achieve the baccalaureate degree in an accelerated time frame. RN-BSN students who have completed all university general education and additional required nursing prerequisite courses for the nursing major can complete the upper division nursing courses in one year of full-time study. Completion of the RN-BSN courses in one year is NOT recommended for the registered nurse who is working full-time. Part-time study is an option for nurses who desire to complete the nursing courses over several years.

The RN-BSN courses are designed for the RN student whose long term career goals may extend beyond the bachelor’s degree. Upon completion of the courses, students will have completed 4-7 credit hours required in the Master of Science in Nursing degree program at Pittsburg State University.

All RN-BSN courses are offered as hybrids (on-campus and on-line attendance required) or on-line. RN students do have the option of enrolling in on-campus only classes. NURS 304 Transition into Baccalaureate Nursing Practice, a hybrid course, meets on-campus two times during the fall semester. As part of this course students orient to the PSU on-line CANVAS platform, the nursing department and the university, obtain parking permits, and network with faculty and other students.

The NURS 723 Client/Family Health: Theory, Assessment, and Promotion and NURS 724 Client/Family Health: Theory, Assessment, and Promotion Practicum, hybrid courses, meet during the fall semester or summer semester one evening a week for the on-campus portion of the courses. These are the last nursing courses taken before graduation. It is required that students complete all course work for the BSN degree before taking NURS 723 Client/Family Health: Theory, Assessment, and Promotion and NURS 724 Client/Family Health: Theory, Assessment, and Promotion Practicum. A nursing elective course is required for the BSN degree. Many RN’s choose to take the NURS 712 Issues and Roles in Advanced Nursing Practice course for their upper division nursing elective. This course meets in the fall and meets a requirement for the MSN degree.

Clinical requirements for the RN-BSN student are met through validation of current nursing practice as a registered nurse and through completion of integrated assignments and activities which meet the clinical objectives for the BSN degree.

It is strongly recommended that students desiring to proceed into the MSN program enroll, audit or engage in an in-depth self study review of Pathophysiology and Pharmacology before enrolling in the NURS 809 Advanced Pathophysiology or the NURS 818 Advanced Pharmacology courses in the MSN program.
PSU Policy Pertaining to the Last Thirty Hours

A maximum of six semester hours of credit completed at another college or university may be applied on the last 30 hours prior to graduation.

Students seeking admission to the RN to BSN courses must make application for admission to the Department of Nursing and make application for admission to the University. The application packet may be obtained from the Department of Nursing or be printed from nursing’s website. The application, with submitted fees, is applicable for only one academic year. If a student is considered to be an International Student, please contact the Admissions Office for applications and fee amounts.

RN to BSN students considering admission to the nursing program should send all official transcripts to the PSU Registrar for evaluation of previously earned credit. Following completion of the transcript evaluation, RN to BSN students should make an appointment for advisement for determination of a program plan of study with a member of the nursing department faculty.

RN to BSN applications are considered once per year. For timely processing, applications are due by March 15th of each calendar year for fall admission.

Completed applications must include the following:

Applicants are required to purchase a background check through CertifiedBackground.com. This is a National Background Check in current state of residence. Also required is a signed consent for background check form for the nursing department, SRS Child Abuse check form, and if NOT a resident of Kansas completion of a KBI background check form. The application packet specifies fee amounts to be remitted. Applicants with a criminal history (includes diversions, misdemeanors and felonies) as well as arrests for which action is still pending will be evaluated on an individual basis, with no guarantee of admission. There are specific requirements for reporting criminal history on the application for admission. Three satisfactory professional references from academic advisors, employers or teachers (references from friends, relatives and ministers are not acceptable references) are required. Additional requirements include, proof of current RN licensure, documentation of current immunization status, documentation of three months current nursing practice - as a registered nurse documented by letter from current employer, current CPR certification, documentation of a cumulative grade point average of 2.50 or better on a 4.00 scale (all transcripts on file with the university) and payment of all fees (application and fees are applicable for only one academic year). All students participate in the standardized testing program that includes a critical thinking pre test and post test. Testing costs are the responsibility of the student. A personal interview may be required.

A student who is born outside of the United States is required to submit proof that he or she has taken and passed the TOEFL iBT (Test of English as a Foreign Language-Internet Based Test). Minimum scores for the TOEFL iBT are as follows: Writing-20, Speaking-20; Reading-19; Listening-20, for a total of 79. Each area must meet the minimum requirement. All students will participate in the standardized testing program that includes a critical thinking pre test and post test. Testing costs are the responsibility of the student.

A grade of “C” or above is required in all of the following courses and their laboratories: BIOL 257/258 Anatomy and Physiology, CHEM 105/106 or 107/108 Chemistry, MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus, PSYCH 155 General Psychology, PSYCH 263 Developmental Psychology or FCS 285 Lifespan Human Development, BIOL 371/372 General Microbiology, FCS 301 Nutrition or FCS 203 Nutrition and Health and SOC 100 Introduction to Sociology.

Any student request for exception or waiver of any published admission requirement including but not limited to specific course requirements must be made in writing in formal letter and addressed to the Chair of the Department of Nursing. Written requests will only be accepted per registered mail. The request must be accompanied by a written explanation to assist in arriving at a fair decision. Granted or denied waivers or exceptions will be made in writing in formal letter from
the Chair of the Department of Nursing and will be sent per registered mail. The Department of Nursing assumes no responsibility to grant waivers or exceptions that are not made according to this protocol. Students are responsible for obtaining the information that they need in order to know, understand, and meet admission requirements.

The Pittsburg State University nursing program requires applicants and admitted clinical nursing students to:

Notify the Department of Nursing in writing of any disciplinary action against ALL licenses, certifications and/or registrations as well as disciplinary action by a state board or governmental agency. (Some examples are): Driver’s License; Fishing License; Hunting License; Day Care License; Nursing Home Administrator License; Nursing License in Kansas or another state; CNA/CMA/HHA certification; School Teacher certification; Dishonorable discharge and/or other than honorable discharge from any branch of the military, disciplinary sanction from any branch of the military.

If disciplinary action has ever been taken against your driver’s license or other license, registration or certification, in Kansas or any other state, (for any reason), you are required to provide an explanatory letter regarding the disciplinary action(s) taken against your driver’s license or other license, registration or certification. Your letter should include the following for each disciplinary action:

Circumstances leading up to the disciplinary action; date of the disciplinary action; actual disciplinary action; current status of the disciplinary action. The applicant may be required to provide certified/dated copies of disciplinary documents.

Failure to notify the department on the application or within one day after admission, if a new action since application, may result in dismissal or suspension until the legal issue is resolved. Continuance in the major will be individually evaluated and will be at the sole discretion of the Pittsburg State University Department of Nursing. NOTE: The Kansas State Board of Nursing and other state nursing boards have specific procedures for reporting disciplinary action on nursing applications (initial, reinstatement and endorsement). The procedures are accessible by contacting the respective boards.

Time Limit to Complete Degree

Nursing credits earned toward the upper division major in nursing at PSU which have been earned more than ten years prior to the time the candidate receives the degree cannot be counted to meet requirements for the degree unless validated by repeating coursework or by special examination.

The Department of Nursing reserves the right to make changes if necessary. Please consult the Department of Nursing website www.pittstate.edu/nurs and current RN to BSN program booklet for any recent changes.

Basic Skills (12-13 hours)

COMM 207: Speech Communication .................. 3
ENGL 101: English Composition ...................... 3
ENGL 190: Honors English Composition ............ 3
or ENGL 299: Introduction to Research Writing ...... 3
MATH 110: College Algebra with Review .......... 5
or MATH 113: College Algebra ...................... 3
or MATH 126: Pre-Calculus .......................... 4

General Education Electives (37-41 hours)

Sciences (9 hours)

BIOL 111: General Biology ............................. 3
and BIOL 112: General Biology Laboratory ........ 2
CHEM 105: Introductory Chemistry ................. 3
and CHEM 106: Introductory Chemistry Laboratory ......................................................... 1
or CHEM 107: Chemistry for the Life Sciences ...... 3
and CHEM 108: Chemistry for the Life Sciences Laboratory .................................................. 1

Social Studies

SOC 100: Introduction to Sociology ................. 3

Political Studies

POLS 101: U.S. Politics ............................... 3
Producing and Consuming (Select one from two of the following three categories)

Economy
ECON 191: Issues in Today's Economy ......................... 3
FCS 230: Consumer Education and Personal
Finance ......................................................................... 3

Technology
EET 247: Computer Programming for Electronic
Systems ........................................................................ 3
GT 190: Introduction to Technological Systems .......... 2
GT 350: Technology and Civilization ......................... 3
EDTH 330: Technology for the Classroom ................ 3
TE 551: Integrated Technology for Educators .......... 3
TM 350: Societal Influence of Technology ................. 3

Business
ACCTG 201: Financial Accounting .......................... 3
CIS 130: Computer Information Systems ................ 3
MGMKT 101: Introduction to Business ...................... 3

Fine Arts and Aesthetic Studies (select one)
ART 155: Printmaking and Paper Arts ....................... 3
ART 178: Introduction to the Visual Arts .................... 3
ART 188: The Designed World ................................... 3
ART 217: Crafts I ....................................................... 3
ART 222: Jewelry Design I .......................................... 3
ART 233: Drawing I .................................................... 3
ART 244: Ceramics I ................................................... 3
ART 266: Sculpture I ................................................. 3
ART 277: Painting I ..................................................... 3
ART 288: Western Art History I ................................. 3
ART 289: Western Art History II ............................... 3
ART 311: Art Education ............................................. 3
COMM 105: Performance Appreciation ..................... 3
COMM 205: Performance Studies ............................. 3
COMM 295: Theatre History (____) ............................. 3
ENGL 250: Introduction to Creative Writing .............. 3
HHP 151: Dance Appreciation ................................... 3
MUSIC 120: Music Appreciation (____) .................... 3
MUSIC 121: Introduction to Music Literature .............. 2
MUSIC 321: History of Music .................................... 3

Cultural Studies (Select one)
GEOG 106: World Regional Geography ................... 3
GEOG 300: Elements of Geography ........................ 3
GEOG 304: Human Geography ................................ 3
WOMEN 399: Global Women's Issues ..................... 3
MLL 114: Chinese Language and Culture I ............... 5
MLL 124: French Language and Culture I ............... 5
MLL 154: Spanish Language and Culture I ............... 5
MLL 184: Russian Language and Culture I ............... 5
MLL 194: Korean Language and Culture I ............... 5

Health and Well-Being
FCS 203: Nutrition and Health ............................... 3
or FCS 301: Nutrition ................................................ 3
PSYCH 155: General Psychology ............................ 3

Human Heritage (Select one from two of the following three categories)

History
HIST 101: World History to 1500 ............................ 3
HIST 102: World History from 1500 ......................... 3
HIST 201: American History to 1865 ....................... 3
HIST 202: American History from 1865 .................. 3

Literature
ENGL 113: General Literature ................................ 3
ENGL 114: General Literature (Genre) ...................... 3
ENGL 116: General Literature (Theme) .................... 3
ENGL 315: Mythology .............................................. 3
ENGL 320: Literature and Film ................................ 3

Philosophy
PHIL 103: Introduction to Philosophy ..................... 3
PHIL 105: Ethics ....................................................... 3
PHIL 111: Ethics: Applied Emphasis (____) ............... 3
PHIL 112: Biomedical Ethics ................................... 3
PHIL 113: Business Ethics .................................... 3
PHIL 114: Environmental Ethics ............................ 3
PHIL 208: Logic and Critical Thinking .................... 3
PHIL 231: World Religions ..................................... 3
Nursing Prerequisite Requirements
(Additional)
Nursing Prerequisites (13 hours)
BIOL 257: Anatomy and Physiology .................. 3
and BIOL 258: Anatomy and Physiology Laboratory .................................................. 2
BIOL 371: General Microbiology .................. 3
and BIOL 372: General Microbiology Laboratory ....... 2
PSYCH 263: Developmental Psychology .................. 3
or FCS 285: Lifespan Human Development .................. 3

Professional Nursing Degree Requirements
Required Hours (63-71 hours)
NURS 265: Health Promotion and Disease Prevention .................................................. 2
NURS 300: Foundations of Nursing Practice ....... 5
NURS 301: Professional Nursing Seminar ....... 1
NURS 302: Techniques for Nursing .................................................. 2
NURS 320: Health Assessment .................. 3
NURS 390: Pathophysiologic Bases of Nursing .................. 3
NURS 405: Health Alterations in Older Adults .................. 3
NURS 410: Nursing the Adult Medical-Surgical Client .................................................. 7
NURS 440: Pharmacology in Nursing I .......... 2
NURS 441: Pharmacology in Nursing II .......... 1
NURS 452: Nursing the Childbearing Family ........ 3
NURS 457: Nursing the Child and the Childbearing Family Practicum .................................. 3
NURS 462: Nursing the Child and Family ........ 3
NURS 470: Nursing the Psychiatric/Mental Health Client .................................................. 5
NURS 599: Internship in Nursing Practice .......... 3

Validation (37 hours) is accomplished by:
1. Achieving a passing score on the National Council’s Licensure Examination for Registered Nurses (NCLEX-RN), as evidenced by a current license to practice as a Registered Nurse.
2. Validation letter of a minimum of three months current nursing practice.
3. Successful completion of NURS 304 Transitions into Baccalaureate Nursing Practice with a “C” or above.
4. Successful completion of NURS 723 Client/Family Health: Theory, Assessment, and Promotion and NURS 724 Client/Family Health: Theory, Assessment, and Promotion Practicum with a “C” or above.

Additional Requirements
A mathematics course, CHEM 105 and 106, CHEM 107 and 108, SOC 100, FCS 203, FCS 301, PSYCH 155, BIOL 257 and 258, BIOL 371 and 372, PSYCH 263, FCS 285 are all nursing pre-requisites and must be completed prior to enrollment in upper division nursing courses.

Nursing Articulation in Kansas
The PSU Nursing Program participates in the Kansas Statewide Articulation Plan to promote educational mobility for nurses. As a participant of this program, Registered Nurses (RN’s) must validate learning in order to receive credit for BSN courses:
NURS 300: Foundations of Nursing Practice ........ 5
NURS 302: Techniques for Nursing .......... 2
NURS 390: Pathophysiologic Bases of Nursing .......... 3
NURS 410: Nursing the Adult Medical-Surgical Client ........ 7
NURS 440: Pharmacology in Nursing I ........ 2
NURS 441: Pharmacology in Nursing II ........ 1
NURS 452: Nursing the Childbearing Family .......... 3
NURS 457: Nursing the Child and the Childbearing Family Practicum .......... 3
NURS 462: Nursing the Child and Family .......... 3
NURS 470: Nursing the Psychiatric/Mental Health Client .......... 5
NURS 599: Internship in Nursing Practice .......... 3

Upper Division Nursing Electives (2-10 hours)
Total hours for Bachelor of Science in Nursing (125-138 hours)
In addition to 1-4, for nursing credits more than ten years old, validation can occur by verifying 1,000 hours of nursing experience in the last three years.

Upper Division Courses

RN to BSN courses are typically offered according to the following designated semesters.

Fall

NURS 265: Health Promotion and Disease Prevention .................................................. 2
NURS 304: Transition Into Baccalaureate Nursing Practice ........................................ 1
NURS 320: Health Assessment .......................................................... 3
NURS 405: Health Alterations in Older Adults .................. 3
NURS 482: Research in Nursing ................................................... 2

Spring

NURS 502: Community Nursing ........................................... 4
NURS 521: Leadership and Management Function .................................................. 3
NURS 525: Advanced Medical Surgical Nursing of the Adult Client ................................ 6

Fall and Summer

NURS 723: Client/Family Health: Theory, Assessment and Promotion Practicum ............. 2

• Upper Division Nursing Electives (3-10 hours)

NURS 723 and 724 are MSN courses.

Nursing Credit Hours Taken at PSU (31-38 hours)
Validated Nursing Credit Hours (37 hours)
Total Credit Hours for Upper Division Nursing Major (68-75 hours)
Total Credit Hours General Education and Nursing Prerequisites (62-66 hours)

The Bachelor of Science in Nursing degree at Pittsburg State University requires a minimum of 125 hours for graduation.

Master of Science in Nursing

The Department of Nursing offers the Master of Science in Nursing (MSN) degree with a major in nursing and an emphasis in family health. The Master of Science in Nursing program is designed to prepare students for careers as family nurse practitioners or as clinical nurse specialists in gerontology or family nursing. Clinical nurse specialist students select a functional area in either nursing administration or nursing education. Due to constrained resources and low enrollment, the Clinical Nurse Specialist Track is not being offered at this time.

Graduate Admission Requirements

Applicants must be fully admitted to the MSN degree program before taking nursing courses. Applicants for unconditional admission to the Master of Science in Nursing degree program must present evidence of: a baccalaureate degree from a nationally accredited nursing school; an undergraduate GPA of 3.00 (based on a 4.00 scale); completion of prerequisite courses (undergraduate research, physical assessment content, and graduate level statistics, students may be allowed to take graduate level statistics concurrently with enrollment in their first nursing courses in the program); evidence of current Kansas RN license and RN license in any state where clinical occurs; three references, resume and documentation of current nursing practice. Critical thinking testing and a proctored writing sample will be required as part of the application process. Applicants must submit the Department of Nursing Health Form and documentation of immunizations, departmental application form with an application fee and sign a consent form for a state and national background check, and SRS Child Abuse background check. Applicants with a criminal history (includes diversions, misdemeanors, and felonies) as well as arrests for which action is still pending will be evaluated on an individual basis with no guarantee of admission. There are specific requirements for reporting criminal history on the application for admission. The number of admissions is limited; therefore, acceptance into the program is competitive. Application deadlines for first consideration: March 15th for fall enrollment in the program. Admission may be granted to applicants with an undergraduate GPA of
2.70 to 2.999 on a space available basis. A student who is born outside of the United States is required to submit proof that he or she has taken and passed the TOEFL iBT (Test of English as a Foreign Language-Internet Based Test). Minimum scores for the TOEFL iBT are as follows: Writing-20; Speaking-20; Reading-19; Listening-20, for a total of 79. Each area must meet the minimum requirement. At completion of common core courses, students must have: current ACLS, minimum two years previous clinical experience, unconditional admission to graduate study at PSU, and unconditional admission to PSU graduate nursing department (and completed graduate folder). A personal interview may be required.

All students will participate in the standardized testing program that includes a critical thinking post test. Testing costs are the responsibility of the student.

The Pittsburg State University nursing program requires applicants and admitted clinical nursing students to:

Notify the Department of Nursing in writing of any disciplinary action against ALL licenses, certifications and/or registrations as well as disciplinary action by a state board or governmental agency. (Some examples are): Driver’s License; Fishing License; Hunting License; Day Care License; Nursing Home Administrator License; Nursing License in Kansas or another state; CNA/CMA/HHA certification; School Teacher certification; Dishonorablr discharge and/or other than honorable discharge from any branch of the military, disciplinary sanction from any branch of the military.

If disciplinary action has ever been taken against your driver’s license or other license, registration or certification, in Kansas or any other state, (for any reason), you are required to provide an explanatory letter regarding the disciplinary action(s) taken against your driver’s license or other license, registration or certification. Your letter should include the following for each disciplinary action:

Circumstances leading up to the disciplinary action; date of the disciplinary action; actual disciplinary action; current status of the disciplinary action. The applicant may be required to provide certified/dated copies of disciplinary documents.

Failure to notify the department on the application or within one day after admission, if a new action since application, may result in dismissal or suspension until the legal issue is resolved. Continuance in the major will be individually evaluated and will be at the sole discretion of the Pittsburg State University Department of Nursing. NOTE: The Kansas State Board of Nursing and other state nursing boards have specific procedures for reporting disciplinary action on nursing applications (initial, reinstatement and endorsement.) The procedures are accessible by contacting the respective boards.

Any student request for exception or waiver of any published admission requirement including but not limited to specific course requirements must be made in writing in formal letter and addressed to the Chair of the Department of Nursing. Written requests will only be accepted per registered mail. The request must be accompanied by a written explanation to assist in arriving at a fair decision. Granted or denied waivers or exceptions will be made in writing in formal letter from the Chair of the Department of Nursing and will be sent per registered mail. The Department of Nursing assumes no responsibility to grant waivers or exceptions that are not made according to this protocol. Students are responsible for obtaining the information that they need in order to know, understand, and meet admission requirements.

Degree Requirements

Students must complete 45-47 hours of coursework for the Master of Science in Nursing degree with a 3.00 GPA and no more than two “C’s” in 700 level and above course work in nursing taken as part of the BSN or MSN programs. According to PSU policy, only six hours may be repeated with no course repeated more than once. After completing nine hours of graduate coursework, each student is required to submit a program (plan) of study in consultation with the major advisor. All graduate students are required to pass a comprehensive examination in their last semester of enrollment.
Time Limit to Complete Degree

Credits earned more than six years before the date for granting the degree cannot be counted to meet requirements for the degree unless they are validated by special examination. Required courses more than six years old must be repeated unless they are validated. Examinations and grades for validated courses are given by the course instructor or departmental faculty.

Courses are eligible for validation only if they have been taken within a ten-year period from when the candidate’s degree will be completed. Courses from other institutions may not be validated; therefore, transferable courses must be no more than six years old at the time of granting the degree.

General Requirements

Students must satisfactorily complete 45-47 hours of approved coursework beyond the bachelor’s degree. No fewer than 35 hours must be in courses numbered 700 to 899. At least 15 hours must be in courses numbered 800 to 899.

Option I Thesis: (NURS 890) includes six hours of thesis credit.

Option II Applied Research: (NURS 891) includes six hours of research problem credit.

Option III Course Work: Successful completion of the functional area of Education or Administration (8 credit hours), which is not part of the student’s program plan of study.

The Department of Nursing reserves the right to make changes if necessary. Please consult the Department of Nursing website www.pittstate.edu/nurs and current MSN program booklet for any recent changes.

The graduate program for the Master of Science in Nursing degree includes 45-47 hours from the following list of courses:

I. Common Core (18 hours)
NURS 712: Issues and Roles in Advanced Nursing Practice ................................................................. 3
NURS 723: Client/Family Health: Theory, Assessment and Promotion .................................................. 2
NURS 724: Client/Family Theory, Assessment, and Promotion Practicum ............................................. 2
NURS 800: Theories Related to Nursing Practice .......... 2
NURS 892: Research Methods in Nursing ....................... 2
NURS 893: Nursing Research Seminar .......................... 1
NURS 890: Research and Thesis .............................................. 1-6
or NURS 891: Research Problem .......................................... 1-6

• or Option III Functional Area (8 hours)

II. Advanced Practice Core (9 hours)
NURS 803: Advanced Health Assessment ....................... 2
NURS 804: Advanced Health Assessment: Practicum ................................................................. 1
NURS 809: Advanced Pathophysiology ............................. 3
NURS 818: Advanced Pharmacology ................................. 3

III. Area of Emphasis (from one of the following two curriculum tracks) (18 hours)

A. Nurse Practitioner Track
Family Nurse Practitioner Specialty*

NURS 806: Primary Care I: Management of Common Health Problems Throughout the Life Span ................................................................. 3
NURS 807: Primary Care I Practicum: Management of Common Health Problems Throughout the Life Span ................................................................. 3
NURS 812: Primary Care II: Management of Complex Health Problems Throughout the Life Span ................................................................. 3
NURS 813: Primary Care II Practicum: Management of Complex Health Problems Throughout the Life Span ................................................................. 3
NURS 828: Nurse Practitioner Preceptorship I .................... 3
NURS 829: Nurse Practitioner Preceptorship II .................. 3

B. Clinical Nurse Specialty Track (includes specialty plus functional area)

1. Family Specialty

NURS 830: Family Process/Management of Acute Emergent Illness (____) ............................................. 1
NURS 831: Family Process/Management of Acute Emergent Illness: Practicum (____) ............................................. 3
NURS 835: Family Process/Management of Chronic Illness (___) ................................................................. 1
NURS 836: Family Process/Management of Chronic Illness: Practicum (___) .................................................. 3
NURS 840: Management of Clients/Families Within the Health Care System Practicum (___) ........ 2

The Clinical Nurse Specialty Track includes a choice of one of the following functional areas:

Administration Functional Area
NURS 760: Nursing and Health Care System Management ................................................................. 2
NURS 761: Nursing and Health Care System Management: Practicum .................................................... 1
NURS 865: Strategic Development .......................................................... 3
NURS 866: Administration Practicum (___) .................. 2

Educational Functional Area
NURS 850: Curriculum Development .................................................. 3
NURS 854: Teaching Strategies: Practicum ...................... 1
NURS 855: Teaching Strategies .......................................................... 2
NURS 856: Education Practicum (___) .................. 2

*Pittsburg State University cooperates with the University of Kansas, Wichita State University, and Fort Hays State University to offer a joint advanced practice curriculum.
Physics

Chairperson: Timothy Flood
Professor(s): Charles Blatchley*, Tim Flood, David M. Kuehn*,**, Assistant Chairperson
Associate Professor(s): Rebecca Butler*, Serif Uran*
Instructors: Kyla Scarborough

*Graduate Faculty
**University Professor

Room 307 Yates Hall
Telephone: 620-235-4391
Fax: 620-235-4050
http://www.pittstate.edu/department/physics
E-mail: phys@pittstate.edu

Undergraduate

Bachelor of Science Degree with a Major in Physics
  Professional Emphasis
  Solid State Physics Emphasis
  Astrophysics Emphasis
  Polymer Physics
  Engineering Technology Emphasis
  Customized Emphasis

Bachelor of Science in Education Degree with a Major in Physics

Minor in Earth and Space Science
Minor in Physics
Minor in Physical Science
Second Teaching Options

Graduate

Master of Science Degree with a Major in Physics

Pre-Engineering Programs

The Department of Physics offers pre-professional work in mechanical engineering, electrical engineering, engineering physics, agricultural engineering, aeronautical engineering, general engineering, and industrial engineering. Details concerning these programs can be obtained from the Department of Physics.

Special Facilities for Undergraduate and Graduate Research

The department's primary research focus continues to be in areas related to astrophysics, condensed matter and materials science, the latter particularly in support of related activities at the Business Technology Institute and in other departments. Funded research opportunities for both undergraduate and graduate projects within the department include accelerator applications in tribology, computational and imaging applications in astrophysics (NASA Fermi and Chandra programs as well as VERITAS), planetary science and nano-technology using scanning electron microscopy (SEM), atomic force microscopy (AFM), and scanning tunneling microscopy (STM). In addition to a dedicated computer laboratory, the department offers an internet equipped office area to graduate students. The department continues to operate the PSU-Greenbush Astrophysical Observatory located at the S.E. Kansas Educational Service Center in Greenbush, Kansas. The observatory's location and imaging instrumentation package make it ideal for spectroscopic or observational studies of planets, comets, and asteroids. This telescope and a collection of smaller telescopes are available for majors in physics, or science education and for graduate student projects.

Bachelor of Science Degree with a Major in Physics

General Education Component*(36-43 hours)

Basic Skills** (9 hours)

General Education Electives (30-37 hours)

Sciences** (4-5 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming** (2-3 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)
Human Heritage (6 hours)

* See General Education Requirements for All Baccalaureate Degrees for details and a list of specific course requirements.

** MATH 150, a computer programming course and PHYS 104/130 or PHYS 100/130 required in the major partially fulfill General Education requirements.

Core Physics Courses (35 hours)

(a) Physics
PHYS 110: Introductory Mathematical Physics .......... 1
PHYS 500: Mathematical Physics ......................... 3
PHYS 510: Analytical Mechanics I ....................... 3
PHYS 512: Electricity and Magnetism I .................. 3
PHYS 516: Modern Physics I .............................. 3
PHYS 530: Intermediate Physics Laboratory .......................... 3
PHYS 699: Senior Review and Assessment .............. 1

(b) Other
CHEM 215: General Chemistry I .......................... 3
and CHEM 216: General Chemistry I Laboratory ....... 2
CHEM 225: General Chemistry II .......................... 3
and CHEM 226: General Chemistry II Laboratory ..... 2
MATH 150: Calculus I .................................. 5
CIS 230: Visual Basic Programming ...................... 3
or CIS 240: C ++ Programming ............................ 3
or CIS 245: Java Programming ............................ 3

Choose one area of emphasis from the list below

Bachelor of Science Degree with a Major in Physics: Solid State Physics Emphasis (38 hours)

(a) Physics
PHYS 104: Engineering Physics I .......................... 4
and PHYS 130: Elementary Physics Laboratory I ...... 1
PHYS 105: Engineering Physics II .......................... 4
and PHYS 132: Engineering Physics Laboratory II ..... 1
PHYS 612: Electricity and Magnetism II .................. 3
PHYS 616: Modern Physics II ............................ 3
PHYS 691: Senior Research Project ...................... 2
PHYS 714: Statistical Thermodynamics .................. 3
PHYS 716: Introductory Quantum Mechanics .......... 3

(b) Electives
Choose three hours of upper-division electives from physics, mathematics, chemistry or technology subject to the approval of the Physics Department.

(c) Mathematics
MATH 155: Calculus II .................................. 5
MATH 253: Calculus III .................................. 3
MATH 553: Differential Equations ....................... 3

The Professional Physics emphasis area is for students seeking further study in graduate school. A minor in Mathematics is recommended.

Bachelor of Science Degree with a Major in Physics: Professional Emphasis (38 hours)

(a) Physics
PHYS 104: Engineering Physics I .......................... 4
and PHYS 130: Elementary Physics Laboratory I ...... 1
PHYS 105: Engineering Physics II .......................... 4
and PHYS 132: Engineering Physics Laboratory II ..... 1
PHYS 612: Electricity and Magnetism II .................. 3
PHYS 616: Modern Physics II ............................ 3
PHYS 691: Senior Research Project ...................... 2
PHYS 714: Statistical Thermodynamics .................. 3
PHYS 716: Introductory Quantum Mechanics .......... 3

(b) Mathematics
MATH 155: Calculus II .................................. 5
MATH 253: Calculus III .................................. 3
MATH 553: Differential Equations ....................... 3

The Solid State Physics emphasis area is for students seeking further study in graduate school. A minor in Mathematics is recommended.
Bachelor of Science Degree with a Major in Physics: Astrophysics Emphasis (38 hours)

(a) Physics
PHYS 104: Engineering Physics I ................................. 4
and PHYS 130: Elementary Physics Laboratory I .......... 1
PHYS 105: Engineering Physics II ............................... 4
and PHYS 132: Engineering Physics Laboratory II ....... 1
PHYS 502: Computational Physics .............................. 3
PHYS 518: Physical Optics ................................. 3
PHYS 575: Introductory Astrophysics .......................... 3
PHYS 691: Senior Research Project ......................... 2
PHYS 716: Introductory Quantum Mechanics .......... 3
PHYS 775: High-Energy Astrophysics ..................... 3

(b) Mathematics
MATH 155: Calculus II .............................................. 5
MATH 253: Calculus III ......................................... 3
MATH 553: Differential Equations ......................... 3

The Astrophysics emphasis area is for students seeking further study in graduate school. A minor in Mathematics is recommended.

Bachelor of Science Degree with a Major in Physics: Polymer Physics Emphasis (26 hours)

(a) Physics
PHYS 104: Engineering Physics I ................................. 4
or PHYS 100: College Physics I ............................... 4
and PHYS 130: Elementary Physics Laboratory I ........ 1
PHYS 105: Engineering Physics II ............................... 4
and PHYS 132: Engineering Physics Laboratory II ....... 1
or PHYS 101: College Physics II ............................... 4
and PHYS 131: College Physics Laboratory II ........... 1

(b) Physics Electives
Six hours of physics electives with course numbers greater than 500 subject to the approval of the Physics Department.

(c) Other
CHEM 320: Introductory Organic Chemistry .................. 3
or CHEM 325: Organic Chemistry I ............................ 3
CHEM 326: Organic Chemistry Laboratory .................. 2
CHEM 620: Polymer Chemistry ............................... 3
and CHEM 621: Polymer Chemistry Laboratory ........... 2

The Emphasis in Polymer Physics is an ideal double major with a BS in Chemistry with Emphasis in Polymer Chemistry or with a BSET in Plastics Engineering Technology.

Bachelor of Science Degree with a Major in Physics: Engineering Technology Emphasis (21-22 hours)

(a) Physics
PHYS 104: Engineering Physics I ................................. 4
or PHYS 100: College Physics I ............................... 4
and PHYS 130: Elementary Physics Laboratory I ........ 1
PHYS 105: Engineering Physics II ............................... 4
and PHYS 132: Engineering Physics Laboratory II ....... 1
or PHYS 101: College Physics II ............................... 4
and PHYS 131: College Physics Laboratory II ........... 1

(b) Physics Electives
Six hours of physics electives with course numbers greater than 500 subject to the approval of the Physics Department.

(c) Other (Choose two from the following)
EET 349: Linear Integrated Circuits ............................ 3
EET 447: Communications Theory and Circuits ............. 3
EET 449: Embedded Programmable Logic Devices ........ 3
EET 546: Electronic Controls ................................. 3
MECET 420: Kinematics ....................................... 2
MECET 423: Mechanics of Materials ......................... 3
MECET 524: Fluid Mechanics ................................. 3
MECET 682: Heat Transfer .................................... 3

The Emphasis in Engineering Technology is an ideal double major with a BSET in either Electronics Engineering Technology or Mechanical Engineering Technology.
Bachelor of Science Degree with a Major in Physics: Customized Emphasis (22 hours)

(a) Physics
PHYS 104: Engineering Physics I .............................................. 4
or PHYS 100: College Physics I ................................................. 4
and PHYS 130: Elementary Physics Laboratory I .......... 1
PHYS 105: Engineering Physics II ............................................. 4
and PHYS 132: Engineering Physics Laboratory II .......... 1
or PHYS 101: College Physics II ............................................ 4
and PHYS 131: College Physics Laboratory II .............. 1

(b) Physics Electives
Six hours of physics electives with course numbers
greater than 500 subject to the approval of the Physics
Department.

(c) Other
Six hours of upper-division electives from physics,
mathematics, chemistry, or technology subject to the
approval of the Physics Department.

The Customized Emphasis is an ideal double major with
a BS in Mathematics, Chemistry or a BSET in
Technology. This emphasis area also fits well for pre-
Medical and Health-related study areas.

Minor Requirements
A minor consists of 20 hours of course work in a field
different from the major field of study. Physics students
customarily minor in chemistry or mathematics, but
may want to select other minors as a way to improve
employment options.

Bachelor of Science in Education Degree
with a Major in Physics

Basic Skills (9 hours)
COMM 207: Speech Communication ......................... 3
ENGL 101: English Composition ............................. 3
ENGL 190: Honors English Composition .................... 3
or ENGL 299: Introduction to Research Writing ............ 3
MATH 113 is satisfied by MATH 150 and 155
requirement listed in content area of the BSEd in
Physics.

A grade of "C" or better in each of the basic skills
courses is required.

General Education Electives (23-29 hours)

Sciences** (0 hours)
**Sciences satisfied by BIOL 111/112 and PHYS 104/130
courses listed in content area.

Social Studies (Select one)
SOC 100: Introduction to Sociology ......................... 3
WOMEN 200: Introduction to Women's Studies ....... 3

Political Studies
POLS 101: U.S. Politics .................................................. 3
The higher course grade of SOC 100 or POLS 101 will be
used in calculating the 2.8 content core GPA.

Producing and Consuming (Select CIS and
one from the remaining two categories)

Economy
ECON 191: Issues in Today’s Economy ................... 3
FCS 230: Consumer Education and Personal
Finance ................................................................. 3

Technology
EET 247: Computer Programming for Electronic
Systems ................................................................. 3
GT 190: Introduction to Technological Systems .......... 2
GT 350: Technology and Civilization ...................... 3
EDTH 330: Technology for the Classroom .......... 3
TE 551: Integrated Technology for Educators ................ 3
TM 350: Societal Influence of Technology ................. 3

Business
CIS (satisfied by CIS 230 requirement listed in content
area)
Fine Arts and Aesthetic Studies (select one)
ART 155: Printmaking and Paper Arts .............................. 3
ART 178: Introduction to the Visual Arts ............................ 3
ART 188: The Designed World ........................................... 3
ART 217: Crafts I .............................................................. 3
ART 222: Jewelry Design I .................................................. 3
ART 233: Drawing I ......................................................... 3
ART 244: Ceramics I .......................................................... 3
ART 266: Sculpture I .......................................................... 3
ART 277: Painting I ............................................................ 3
ART 288: Western Art History I ............................................ 3
ART 289: Western Art History II ......................................... 3
ART 311: Art Education ...................................................... 3
COMM 105: Performance Appreciation ............................... 3
COMM 205: Performance Studies ........................................ 3
COMM 295: Theatre History (___) ........................................ 3
ENGL 250: Introduction to Creative Writing ......................... 3
HHP 151: Dance Appreciation ............................................ 3
MUSIC 120: Music Appreciation (___) ............................... 3
MUSIC 121: Introduction to Music Literature ......................... 2
MUSIC 321: History of Music .............................................. 3

Cultural Studies (Select one)
MLL 114: Chinese Language and Culture I .......................... 5
MLL 124: French Language and Culture I ............................ 5
MLL 154: Spanish Language and Culture I ............................ 5
MLL 184: Russian Language and Culture I ............................ 5
MLL 194: Korean Language and Culture I ............................ 5
GEOG 106: World Regional Geography .............................. 3
GEOG 300: Elements of Geography .................................... 3
GEOG 304: Human Geography .......................................... 3
WOMEN 399: Global Women’s Issues ................................. 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ........................................ 3

Physical (Select one)
FCS 203: Nutrition and Health .......................................... 3
FCS 301: Nutrition ............................................................ 3
HHP 150: Lifetime Fitness Concepts .................................... 1
NURS 303: Introduction to Public Health ............................ 3

Human Heritage (Select one from two of the following three categories)

History
HIST 101: World History to 1500 ........................................ 3
HIST 102: World History from 1500 .................................... 3
HIST 201: American History to 1865 .................................. 3
HIST 202: American History from 1865 .............................. 3

Literature
ENGL 113: General Literature ............................................ 3
ENGL 114: General Literature (Genre) ............................... 3
ENGL 116: General Literature (Theme) ............................... 3
ENGL 315: Mythology ....................................................... 3
ENGL 320: Literature and Film .......................................... 3

Philosophy
PHIL 103: Introduction to Philosophy .................................. 3
PHIL 105: Ethics ............................................................... 3
PHIL 111: Ethics: Applied Emphasis (___) ............................ 3
PHIL 112: Biomedical Ethics ............................................... 3
PHIL 113: Business Ethics .................................................. 3
PHIL 114: Environmental Ethics ......................................... 3
PHIL 208: Logic and Critical Thinking ................................. 3
PHIL 231: World Religions ................................................ 3

Professional Studies Component*
In addition to the professional education courses listed below, the student must complete the courses for the teaching specialty for physics.

Teaching and Learning Theory with Laboratory and Clinical Experience
EDUC 261: Explorations in Education .................................... 3
PSYCH 263: Developmental Psychology .............................. 3
PSYCH 357: Educational Psychology .................................... 3
PHYS 479: Techniques for Teaching Physics .......................... 3
SPED 510: Overview of Special Education ............................ 3
EDUC 520: Methods and Materials for Academic Literacy .......... 3

203
*See Admission to Professional Semester for professional education grade point requirements.

PSYCH 357, PHYS 479, and EDUC 520 require admission to Teacher Education prior to enrollment in the courses.

**Professional Semester (17 hours)**

EDUC 458: Methods and Curriculum ........................................... 3
EDUC 462: Secondary and Middle Level Education ...................................................... 2
EDUC 464: Foundations of Measurement and Evaluation ........................................... 2
EDUC 480: Supervised Teaching in the Secondary School ........................................... 3
EDUC 482: Supervised Teaching in the Secondary School ........................................... 5
PHYS 579: Supervised Student Teaching and Follow-Up of Teachers .......................... 2

**Content for the Teaching Specialty: Physics (61 hours)**

PHYS 104: Engineering Physics I ........................................... 4
and PHYS 130: Elementary Physics Laboratory I ........... 1
PHYS 105: Engineering Physics II ........................................... 4
and PHYS 132: Engineering Physics Laboratory II ........... 1
or PHYS 131: College Physics Laboratory II ........... 1
PHYS 375: Solar System Astronomy ........................................... 3
or PHYS 575: Introductory Astrophysics ........................................... 3
PHYS 516: Modern Physics I ........................................... 3
PHYS 530: Intermediate Physics Laboratory (___) ........................................... 3
PHYS 532: Electronic Circuits I ........................................... 3
PHYS 569: Laboratory Assistant Practicum ........................................... 2
PHYS 691: Senior Research Project ........................................... 2
PHYS 699: Senior Review and Assessment ........................................... 1
CHEM 215: General Chemistry I ........................................... 3
and CHEM 216: General Chemistry I Laboratory ........... 2
CHEM 225: General Chemistry II ........................................... 3
and CHEM 226: General Chemistry II Laboratory ........... 2
MATH 150: Calculus I ........................................... 5
MATH 155: Calculus II ........................................... 5
BIOL 111: General Biology ........................................... 3
and BIOL 112: General Biology Laboratory ........................................... 2
CIS 230: Visual Basic Programming ........................................... 3
PHYS 160: Physical Geology ........................................... 3

- One additional upper-division physics course (3 hours)

Students planning to teach should become familiar with the current regulations for licensure of school personnel prepared by the State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

**Minor Requirements**

Students preparing to teach physics must select a minor. The Earth and Space Science Minor is recommended for students wishing to obtain Earth and Space Science Licensure.

**Minor in Earth and Space Science**

**Earth and Space Science Minor (22 hours)**

PHYS 160: Physical Geology ........................................... 3
and PHYS 165: Physical Geology Laboratory ........................................... 1
PHYS 166: Meteorology ........................................... 3
and PHYS 167: Meteorology Laboratory ........................................... 1
PHYS 175: Descriptive Astronomy ........................................... 3
or PHYS 375: Solar System Astronomy ........................................... 3
and PHYS 176: Astronomy Laboratory ........................................... 1

An additional 10 hours from any of the following courses (when not used as part of the core)

BIOL 304: Soils Ecology ........................................... 3
BIOL 330: Principles of Ecology ........................................... 3
BIOL 515: Stream Ecology ........................................... 3
BIOL 537: Regional Natural History ........................................... 3
PHYS 162: Physical Oceanography ........................................... 3
and PHYS 163: Physical Oceanography Laboratory ........................................... 1
PHYS 175: Descriptive Astronomy ........................................... 3
PHYS 260: Historical Geology ........................................... 5
PHYS 264: Environmental Geology ........................................... 4
PHYS 375: Solar System Astronomy ........................................... 3
PHYS 540: Topics in Physics (___) ........................................... 1-3
PHYS 541: Topics in Astronomy (___) ........................................... 1-3
PHYS 542: Topics in Earth Science (___) ........................................... 1-3
PHYS 560: Field Studies in Earth and Space Science ........................................... 2-3
Minor in Physics

Physics Minor (22 hours)
This minor does not qualify students for licensure to teach physics. Students interested in physics as a second teaching option should refer to "Second Teaching Options" under the department information.

PHYS 100: College Physics I ............................... 4
or PHYS 104: Engineering Physics I ....................... 4
PHYS 130: Elementary Physics Laboratory I .......... 1
PHYS 101: College Physics II ............................... 4
or PHYS 105: Engineering Physics II ....................... 4
PHYS 132: Engineering Physics Laboratory II ........ 1
or PHYS 131: College Physics Laboratory II ........... 1
PHYS 516: Modern Physics I ............................... 3

- Electives in physics* (9 hours)

*The following courses cannot be used to satisfy electives in physics: PHYS 171 Physical Science, PHYS 172 Physical Science Laboratory, PHYS 114 Physical Science Laboratory for Teachers, PHYS 160/165 Physical Geology/Laboratory, PHYS 162/163 Physical Oceanography/Laboratory, PHYS 166/167 Meterology/Laboratory, PHYS 260 Historical Geology, PHYS 264 Environmental Geology, PHYS 479 Techniques for Teaching Physics, PHYS 542 Topics in Earth Science (___), PHYS 560 Field Studies in Earth and Space Science, PHYS 579 Supervised Student Teaching and Follow-up of Teachers and PHYS 741 Special Topics (___).

Minor in Physical Science
Twenty hours selected from both physics* and chemistry**. The physical science minor is not available to students who major in physics or chemistry.

*The following courses in physics cannot be applied toward the physical science minor: PHYS 114 Physical Science Laboratory for Teachers, PHYS 171 Physical Science, PHYS 172 Physical Science Laboratory, PHYS 479 Techniques for Teaching Physics, PHYS 569 Laboratory Assistant Practicum, PHYS 579 Supervised Student Teaching and Follow-up of Teachers and all 700 level courses.

**200 level and above.

Second Teaching Options
Those persons interested in physics, middle school science or earth and space science as a second teaching option should contact the Department of Physics or the Certification Officer in the College of Education, 115 Hughes Hall, for specific requirements.

Master of Science Degree with a Major in Physics
The MS degree program in physics consists of a core of three courses, PHYS 810 Classical Mechanics, PHYS 812 Electromagnetic Theory, and PHYS 816 Quantum Mechanics, plus electives appropriate to the student’s plans for employment in physics or related fields, further graduate study, or teaching physics or the physical sciences.

Elective courses, subject to approval of the department, are usually selected from physics, chemistry, mathematics, or biology. Incoming students must take a diagnostic examination on undergraduate physics no later than the first semester of enrollment without course deficiencies. Students must pass all components or department approved alternatives for full acceptance into the program.

Option I: Thesis

Professional Physics Emphasis
For students preparing for further graduate study or for physics or physics-related employment. A minimum of
thirty semester hours, including the three core courses, PHYS 810 Classical Mechanics, PHYS 812 Electromagnetic Theory, and PHYS 816 Quantum Mechanics, and at least six hours PHYS 890 Research and Thesis, as determined by the department as necessary to complete the thesis research and an oral defense. Concentration on a selected physics or interdisciplinary specialty is possible through a combination of listed courses and PHYS 890 Research and Thesis, which may cover areas as diverse as solid state chemistry, materials science, surface physics, or radiation effects.

**Option II: Research Problem**

**Applied Physics Emphasis**

For students preparing for physics or physics-related employment. A minimum of thirty-two semester hours, including the three core courses, PHYS 810 Classical Mechanics, PHYS 812 Electromagnetic Theory, and PHYS 816 Quantum Mechanics, and at least three hours of PHYS 891 Research Problem, as determined by the department as necessary to complete the problem research and both a written and oral report, are required.

**Pre-Service Teaching Emphasis**

For students preparing to teach physics or physical science at high school or junior college level. Elective courses may include up to nine hours professional education, which may substitute for one of the core courses, with department approval. A minimum of thirty-two semester hours including at least three hours of PHYS 891 Research Problem, as determined by the department as necessary to complete the problem research and both a written and oral report, are required.

**In-Service Teaching Emphasis**

For current teachers of high school physics seeking advanced physics-teacher training in conjunction with either Kansas licensure in physics or certification in another state. A minimum of 36 hours is required, including PHYS 760 History and Philosophy of Science, PHYS 832 Experimental Design in the Physical Sciences, PHYS 893 Research Grant Proposal Writing, and PHYS 882 Guided Inquiry for Science Fairs and Demonstrations. These four courses may replace some or all of the three core courses. Instead of writing a thesis or problem report, the student must submit a grant proposal for external funding. With permission of the student's advisor and department chairman, up to 12 hours may be taken outside the department, including a maximum of six in education. A minimum of 15 hours should be in courses numbered 800-899, and 30 hours must be in courses numbered 700-899.
Gladys A. Kelce College of Business

Dean: Paul Grimes
Room: 101 Kelce
Telephone: 620-235-4598
Fax: 620-235-4578
Email: mmorrison@pittstate.edu

Departments
Accounting and Computer Information Systems
Economics, Finance, and Banking
Management and Marketing

Accreditation
The degree programs offered by the Gladys A. Kelce College of Business are accredited by the North Central Association of Colleges and Schools of The Higher Learning Commission. In addition, the BBA and MBA degree programs have attained the prestigious accreditation awarded by The Association to Advance Collegiate Schools of Business (AACSB International).

Mission of the Gladys A. Kelce College of Business
The mission of the Kelce College of Business is to support Pittsburg State University and our stakeholders in our service area by:

- preparing undergraduate and MBA students for successful business careers;
- advancing business learning, theory, and practice through the production of intellectual contributions;
- supporting the professional development and service activities of faculty; and
- fostering a student-centered environment that focuses on ethical decision-making, a global perspective, and respect for diversity.

Board of Advisors
The Kelce College Board of Advisors provides external advice and consultation in both its instructional and service activities. This group of business and professional leaders meets several times each year. The members of this Board are:

Julie Allman, National Bank Examiner
Office of the Comptroller of the Currency, Joplin, Missouri

Doug Ball, Director of Finance, Wireline and Wholesale Business Units, Sprint, Overland Park, Kansas

Paul R. Bergant, Executive Vice-President; Chief Marketing Officer; President, Intermodal J.B. Hunt Transport, Inc., Lowell, Arkansas

Ken Brock, President
K.W. Brock Directories, Inc., Pittsburg, Kansas

Terry L. Calloway, President
Data Technique, Inc., Pittsburg, Kansas

Doug Eaton
Human Resource Consulting, Tulsa, Oklahoma

Nancy E. George, Audit and Review Manager
Girard National Bank, Girard, Kansas

June Harryman, Supervisory Benefits Advisor
U.S. Department of Labor, Kansas City, Missouri

Daniel F. Kjergaard, Director
CBIZ Accounting Tax & Advisory Services, Leawood, Kansas

Charles R. H. Myers, Vice President-CFO
Collins Investment, Inc., Tulsa, Oklahoma

Bill Neighbors, President
Tank Connection, Parsons, KS

Mark Paden, Executive Vice President and Chief Executive Officer
National American Insurance Company, Chandler, OK

Jerry Ross, General Manager
Triple-T-Foods, Frontenac, Kansas

H. Lee Scott, Chairman of the Executive Committee of the Board Wal-Mart Stores, Inc., Bentonville, Arkansas

Steven Thompson, President
ETCO-Specialty Products, Girard, Kansas

Rachel Vanzant, Director of Financial Reporting
NPC International, Inc., Pittsburg, Kansas
Scholarships for Business Students

Numerous businesses, professional organizations and individuals have contributed to scholarships for business students. To see a list of these scholarships, go to our scholarship website at http://www.pittstate.edu/affordability/scholarships and click on departmental scholarships.

Student Organizations

Leadership training is a vital component of the preparation for business professions. Several student organizations are available to assist business students in developing professional leadership skills.

The business student organizations include: Association of Certified Fraud Examiners’ Student Chapter, Beta Alpha Psi, Beta Gamma Sigma, Finance Club, Institute of Internal Auditors’ Student Chapter, Institute of Management Accountants’ Student Chapter, International Business Student Association, MBA Association, Omicron Delta Epsilon, Marketing Association, Young Entrepreneurs Association and Students in Free Enterprise. The Kelce Leadership Council coordinates activities of all Kelce College student organizations.

Departmental Academic Honors Program

The Kelce College participates in the university-wide departmental academic honors program. Requirements for the honors program are summarized in the general description of the departmental honors program on Departmental Academic Honors.

Kelce Business Scholars

Each semester, regular full-time upper division undergraduate students majoring in programs administered by the Kelce College who finish in the top three percent in cumulative GPA are designated as Kelce Business Scholars. Names of these scholars are prominently listed on a recognition board on the first floor of the Kelce College during the semester following their designation.

Admission to the Kelce College

Students desiring admission to a baccalaureate degree program in the Kelce College must meet the following admission requirements in addition to those of the university. Specifically, the student must have:

1. Completed 42 semester hours applicable to the degree which the student is seeking;
2. Completed the following foundation courses with a grade of "C" or better in each course:
   - ENGL 101 English Composition or equivalent course;
   - MATH 113 College Algebra or equivalent course;
3. Obtained a cumulative grade point average of 2.50 on all hours attempted (at Pittsburg State University and/or other institutions).

A student who meets these requirements will be admitted to Kelce College of Business by the Office of Academic Advising, 102 Kelce Hall.

Students pursuing a baccalaureate degree program in the Kelce College must be admitted to Kelce prior to enrolling in business courses numbered 400 and above. Students with other degree objectives will be allowed to take business courses numbered 400 and above if they meet the prerequisites as well as other university requirements.

As a residency requirement, a student must complete at least 24 hours of Kelce College courses after the student has been admitted to the Kelce College.

Junior Standing Prerequisite

All courses in the Common Body of Knowledge numbered 300 or above have a junior standing prerequisite. Junior standing is defined as the completion of 55 semester hours applicable to the student’s degree program.

Validation of Transfer Credit

Students must validate any lower division course which meets the following criteria:

1. Is offered by the Kelce College with a prerequisite of junior standing.
2. Is specifically required in the student’s degree program.

Validation may be accomplished in two ways. The student may either:

1. Complete an appropriate upper division course in the appropriate discipline (e.g., an upper division course in marketing would validate MGMKT 330 Basic Marketing) with a grade of "C" or better for which the course to be validated is a prerequisite, or

2. Receive a passing score (50th percentile) on the advanced appropriate test of the College Level Examination Program (CLEP).

Transfer Credit Limitation

At least 50 percent of the business credit hours (i.e., the credit hours from the areas of accounting, economics, finance, management, marketing, and computer information systems) that are required for the Bachelor of Business Administration degree must be earned at Pittsburg State University.

Technology Minors

Business majors may now take one of the following three technology minors, in conjunction with their business majors.

Manufacturing Management Minor (22 hours)

MFGET 160: Manufacturing Graphics .........................3
MFGET 263: Manufacturing Methods I .........................2
MFGET 367: Manufacturing Methods II ......................4
MFGET 268: Manufacturing Methods I Laboratory ..........1
ETECH 296: Materials in Industry .............................3
MFGET 405: Quality Control ....................................3
MFGET 661: Computer Aided Manufacturing ...............3
MFGET 690: Manufacturing Production Control and Management .........................................................3

Construction Management Minor (22-23 hours)

CMCET 234: The Construction Industry .........................3
CMCET 235: Methods of Construction-Light Frame and Finishes ..................................................................2
CMCET 334: Methods of Construction-Sitework and Steel ..........................................................3
CMCET 335: Methods of Construction-Concrete and Masonry ..........................................................3
CMCET 631: Construction Estimating I .........................3
CMCET 634: Construction Management ......................3
CMCET 635: Contract Administration ........................3
CMCET 639: Construction Estimating II ......................2
or EST 696: Construction Safety ..................................3

Automotive Technology Minor (25 hours)

AT 112: Engine Analysis ..............................................3
AT 210: Brake Systems ..............................................3
AT 211: Steering, Alignment and Suspension ................3
AT 215: Automotive Electrical/Electronic Equipment ..........................................................3
AT 216: Automotive Electrical/Electronic Equipment Laboratory ..........................................................3

Electives chosen from the following list (10 hours)

AT 314: Manual Transmission and 4WD Mechanisms ..........................................................3
AT 403: Current Topics in Automotive Technology (____) ..........................................................1-3
or AT 410: Emerging Developments in Automotive Technology ..........................................................1
AT 414: Automatic Transmissions .............................3
AT 510: Automotive Climate Systems ........................3
AT 511: Service Techniques Laboratory ....................3 or 5
AT 615: Engine Performance Laboratory ....................3
AT 690: Dealership and Manufacturer Management ..........................................................3
AT 691: Service Management Seminar ........................3
Accounting and Computer Information Systems

Chairperson: Rebecca Casey
Professor(s): Kailash Chandra*, Maeve Cummings*, **, Jack R. Fay*, David O'Bryan*, **
Associate Professor(s): Melvin Roush*, Wei Sha*
Assistant Professor(s): Jae Joon Choi*
Instructors: Rebecca Casey*, Mary Polfer, Dwight Strong, Gail Yarick

*Graduate Faculty
**University Professor

Room 201 Kelce
Telephone: 620-235-4561
Fax: 620-235-4558
http://www.pittstate.edu/department/accounting
E-mail: acctg@pittstate.edu

Undergraduate
Bachelor of Business Administration Degree with a Major in Accounting
Bachelor of Business Administration Degree with a Major in Computer Information Systems
Minor in Accounting
Minor in Computing
Minor in Fraud Examination
Minor in Internal Auditing

Graduate
Master of Business Administration Degree with a Concentration in Accounting

UNDERGRADUATE DEGREE PROGRAMS

Major in Accounting

The major in Accounting provides preparation for professional accounting careers in industry, government, non-profits, and in public accounting. The major in Accounting provides a sound foundation for those wishing to sit for the Certified Public Accountant (CPA) examination, Certified Management Accountant (CMA) examination, Certified Internal Auditor (CIA) examination, and Certified Fraud Examiner (CFE) examination. Effective July 1, 1997, candidates for the CPA examination in Kansas are required to have completed 150 semester hours of college credit. Those interested in sitting for either the CPA, CMA, CIA, or CFE examinations should consult the department chair for specific examination requirements.

Major in Computer Information Systems

The major in Computer Information Systems involves the study and analysis of information flow in an organization and the design of an information gathering and processing system using computers, which will facilitate planning and decision making in the organization. The typical graduate finds employment in business, industry, or government as a programmer, programmer/analysts, information technology support specialists or various other positions related to operating and managing a modern information technology installation. Some choose to continue their study as a graduate student. With experience or further study, a graduate may advance to positions such as systems analyst, software engineer, project manager, database administrator, or manager of information systems.

Students majoring in Computer Information Systems select an emphasis of either Information Assurance and Computer Security or System Design.

Information Assurance and Computer Security Emphasis

Information Assurance and Computer Security deals with the increasing need to provide for the protection of information that is stored and processed by computer systems and communicated using modern communication networks.

The basis for the program begins with an understanding of the role of information in contemporary society, the technological means to store, transmit, and generate information, and the importance of assuring that information will be accurate, confidential and available.

System Design Emphasis

The System Design program at Pittsburg State University draws upon the Bachelor of Business
Administration degree program to provide the environmental awareness of the role of information in the firm and combine it with the Information Systems program that provides a solid technological foundation that prepares the student for careers in computer programming, system design and analysis, database programming and administration, and information technology support.

Admission to Accounting and Computer Information Systems Program

Admission to the Kelce College of Business will automatically admit accounting majors to the accounting program and computer information systems majors to the computer information systems program.

Continued Progress in Accounting and Computer Information Systems Programs

Admission to all accounting and computer information systems courses numbered 400 or above requires a 2.50 GPA.* Accounting and Computer Information Systems majors must maintain a 2.50 GPA in order to continue with the program.

*The 2.50 GPA requirement is in addition to other course prerequisites.

Changes in Requirements

Baccalaureate degree curriculum offered by the Department of Accounting and Computer Information Systems are periodically revised and updated. Such revisions will be communicated by the department to currently enrolled students majoring in its programs. Each student is required to graduate under the most recent curriculum in effect at the time of that student's graduation unless those revisions would extend the student's graduation date. Requests for exceptions to such curriculum revisions should be filed in writing with the department chair.

Junior Standing Prerequisite

All undergraduate courses offered in the Department of Accounting and Computer Information Systems numbered 300 and above have a junior standing prerequisite. For purposes of this prerequisite, junior standing is defined as the completion of 55 semester hours applicable to the student's degree program. A student with fewer than 55 hours may petition the Department of Accounting and Computer Information Systems for admission to ACCTG 315 Intermediate Managerial Accounting and ACCTG 318 Intermediate Financial Accounting I.

Bachelor of Business Administration Degree with a Major in Accounting

Students seeking the BBA degree with a major in accounting must complete the following curriculum. At least 24 hours of required upper division business courses, including at least 12 hours of upper division accounting courses, must be taken at Pittsburg State University.

Basic Skills (15 hours)

COMM 207: Speech Communication .......................... 3
ENGL 101: English Composition .............................. 3
ENGL 190: Honors English Composition .................... 3
or ENGL 299: Introduction to Research Writing ............ 3
MATH 113: College Algebra .................................... 3
MATH 143: Elementary Statistics ........................... 3

General Education Electives (38-44 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)

BIOL 111: General Biology ..................................... 3
and BIOL 112: General Biology Laboratory ................. 2
BIOL 113: Environmental Life Science ..................... 4
BIOL 211: Principles of Biology I ............................ 4

BIOL 113 Environmental Life Science is recommended for Bachelor of Business Administration Degree.

Physical Sciences (Select one)

CHEM 105: Introductory Chemistry ............................ 3
and CHEM 106: Introductory Chemistry Laboratory .................. 1
CHEM 107: Chemistry for the Life Sciences .............. 3

211
and CHEM 108: Chemistry for the Life Sciences Laboratory .............................................................. 1
PHYS 160: Physical Geology ............................................. 3
and PHYS 165: Physical Geology Laboratory .................. 1
PHYS 162: Physical Oceanography .................................. 3
and PHYS 163: Physical Oceanography Laboratory ........... 1
PHYS 166: Meteorology .................................................. 3
and PHYS 167: Meteorology Laboratory ........................... 1
PHYS 171: Physical Science ............................................. 3
and PHYS 172: Physical Science Laboratory ..................... 1
PHYS 175: Descriptive Astronomy .................................... 3
and PHYS 176: Astronomy Laboratory .............................. 1
PHYS 375: Solar System Astronomy .................................. 3
and PHYS 176: Astronomy Laboratory .............................. 1

**Social Studies (Select one) (3 hours)**
SOC 100: Introduction to Sociology .................................. 3
WOMEN 200: Introduction to Women’s Studies ................. 3

**Political Studies (3 hours)**
POLS 101: U.S. Politics ..................................................... 3

**Producing and Consuming (9 hours)**
ECON 200: Introduction to Microeconomics ..................... 3
ECON 201: Introduction to Macroeconomics ..................... 3
CIS 130: Computer Information Systems .......................... 3

**Fine Arts and Aesthetic Studies (select one) (2-3 hours)**
ART 155: Printmaking and Paper Arts ................................. 3
ART 178: Introduction to the Visual Arts ............................. 3
ART 188: The Designed World ......................................... 3
ART 217: Crafts I .......................................................... 3
ART 222: Jewelry Design I .............................................. 3
ART 233: Drawing I ....................................................... 3
ART 244: Ceramics I ....................................................... 3
ART 266: Sculpture I ....................................................... 3
ART 277: Painting I ........................................................ 3
ART 288: Western Art History I ......................................... 3
ART 289: Western Art History II ....................................... 3
ART 311: Art Education .................................................. 3
COMM 105: Performance Appreciation ............................. 3
COMM 205: Performance Studies ...................................... 3
COMM 295: Theatre History (___) ...................................... 3

ENGL 250: Introduction to Creative Writing ......................... 3
HHP 151: Dance Appreciation ......................................... 3
MUSIC 120: Music Appreciation (___) ............................... 3
MUSIC 121: Introduction to Music Literature ...................... 2
MUSIC 321: History of Music ........................................... 3

**Cultural Studies (Select one) (3-5 hours)**
MLL 114: Chinese Language and Culture I .............. 5
MLL 124: French Language and Culture I .................. 5
MLL 154: Spanish Language and Culture I ................ 5
MLL 184: Russian Language and Culture I ................ 5
MLL 194: Korean Language and Culture I ................. 5
GEOG 106: World Regional Geography ....................... 3
GEOG 300: Elements of Geography ............................... 3
GEOG 304: Human Geography ......................................... 3
WOMEN 399: Global Women’s Issues ............................. 3

**Health and Well Being (4-6 hours)**

**Psychological**
PSYCH 155: General Psychology ...................................... 3

**Physical (Select one)**
FCS 203: Nutrition and Health ........................................ 3
FCS 301: Nutrition ....................................................... 3
HHP 150: Lifetime Fitness Concepts .............................. 1
NURS 303: Introduction to Public Health ......................... 3

**Human Heritage (Select one from two of the following three categories) (6 hours)**

**History**
HIST 101: World History to 1500 .................................. 3
HIST 102: World History from 1500 .............................. 3
HIST 201: American History to 1865 ............................. 3
HIST 202: American History from 1865 ......................... 3

**Literature**
ENGL 113: General Literature .......................................... 3
ENGL 114: General Literature (Genre) ............................ 3
ENGL 116: General Literature (Theme) ........................... 3
ENGL 315: Mythology .................................................... 3
ENGL 320: Literature and Film ......................................... 3
Philosophy
PHIL 103: Introduction to Philosophy ................. 3
PHIL 105: Ethics ........................................ 3
PHIL 112: Biomedical Ethics .......................... 3
PHIL 113: Business Ethics ............................. 3
PHIL 114: Environmental Ethics ....................... 3
PHIL 208: Logic and Critical Thinking ............... 3
PHIL 231: World Religions ............................ 3

Common Body of Knowledge
ACCTG 201: Financial Accounting .................... 3
ACCTG 202: Managerial Accounting ................... 3
MGMKT 310: Basic Quantitative Business Methods .................................................. 3
FIN 326: Business Finance ................................ 3
MGMKT 327: Organizational Theory and Behavior ........................................................................ 3
MGMKT 330: Basic Marketing ............................ 3

Economics- Three hours selected from the following
ECON 330: Money and Banking .......................... 3
ECON 418: Intermediate Microeconomics ........... 3
ECON 419: Intermediate Macroeconomics .......... 3
ECON 640: International Trade ......................... 3

ACCTG 420: Information Technology and Accounting Systems ........................................... 3
MGMKT 320: Business Statistics ........................ 3
MGMKT 444: Legal and Social Environment of Business ..................................................... 3
MGMKT 477: Quantitative Decision Making .......... 3
MGMKT 626: Operations Management ............... 3
MGMKT 645: Business Strategy ........................ 3

Major
ACCTG 315: Intermediate Managerial Accounting .... 3
ACCTG 410: Intermediate Financial Accounting II .... 3
ACCTG 416: Business Taxation ......................... 3
ACCTG 422: Internal Auditing ........................... 3
ACCTG 522: Information Systems Auditing and Controls .................................................. 3
ACCTG 585: Accounting Law ............................ 3

ACCTG 620: Advanced Financial Accounting ........... 3

- Electives in accounting numbered above 299 (3 hours)

General Electives (0-5 hours)

Total hours for Bachelor of Business Administration Degree with a Major in Accounting (124 hours)

Bachelor of Business Administration Degree with a Major in Computer Information Systems

Students seeking the BBA degree with a major in computer information systems must complete the following curriculum. At least 50 percent of the upper division business credit hours (i.e., the credit hours from the areas of accounting, economics, finance, management, marketing, and information systems) that are required for the Bachelor in Business Administration degree must be earned at Pittsburg State University.

Basic Skills (15 hours)
COMM 207: Speech Communication .................... 3
ENGL 101: English Composition ........................ 3
ENGL 190: Honors English Composition ............... 3
or ENGL 299: Introduction to Research Writing .......... 3
MATH 113: College Algebra .............................. 3
MATH 143: Elementary Statistics ........................ 3

General Education Electives (38-44 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)
BIOL 111: General Biology ............................... 3
and BIOL 112: General Biology Laboratory ............ 2
BIOL 113: Environmental Life Science ................... 4
BIOL 211: Principles of Biology I .......................... 4

BIOL 113 Environmental Life Science is recommended for Bachelor of Business Administration Degree.
Physical Sciences (Select one)

CHEM 105: Introductory Chemistry ........................................... 3
and CHEM 106: Introductory Chemistry Laboratory ........................................... 1
CHEM 107: Chemistry for the Life Sciences ........................................... 3
and CHEM 108: Chemistry for the Life Sciences Laboratory ........................................... 1
PHYS 160: Physical Geology ........................................... 3
and PHYS 165: Physical Geology Laboratory ........................................... 1
PHYS 162: Physical Oceanography ........................................... 3
and PHYS 163: Physical Oceanography Laboratory ........................................... 1
PHYS 166: Meteorology ........................................... 3
and PHYS 167: Meteorology Laboratory ........................................... 1
PHYS 171: Physical Science ........................................... 3
and PHYS 172: Physical Science Laboratory ........................................... 1
PHYS 175: Descriptive Astronomy ........................................... 3
and PHYS 176: Astronomy Laboratory ........................................... 1
PHYS 375: Solar System Astronomy ........................................... 1
and PHYS 176: Astronomy Laboratory ........................................... 1

Social Studies (Select one) (3 hours)

SOC 100: Introduction to Sociology ........................................... 3
WOMEN 200: Introduction to Women's Studies ........................................... 3

Political Studies (3 hours)

POLS 101: U.S. Politics ........................................... 3

Producing and Consuming (9 hours)

ECON 200: Introduction to Microeconomics ........................................... 3
ECON 201: Introduction to Macroeconomics ........................................... 3
CIS 130: Computer Information Systems ........................................... 3

Fine Arts and Aesthetic Studies (select one) (2-3 hours)

ART 155: Printmaking and Paper Arts ........................................... 3
ART 178: Introduction to the Visual Arts ........................................... 3
ART 188: The Designed World ........................................... 3
ART 217: Crafts I ........................................... 3
ART 222: Jewelry Design I ........................................... 3
ART 233: Drawing I ........................................... 3
ART 244: Ceramics I ........................................... 3
ART 266: Sculpture I ........................................... 3
ART 277: Painting I ........................................... 3
ART 288: Western Art History I ........................................... 3
ART 289: Western Art History II ........................................... 3
ART 311: Art Education ........................................... 3
COMM 105: Performance Appreciation ........................................... 3
COMM 205: Performance Studies ........................................... 3
COMM 295: Theatre History (____) ........................................... 3
ENGL 250: Introduction to Creative Writing ........................................... 3
HHP 151: Dance Appreciation ........................................... 3
MUSIC 120: Music Appreciation (____) ........................................... 3
MUSIC 121: Introduction to Music Literature ........................................... 2
MUSIC 321: History of Music ........................................... 3

Cultural Studies (Select one) (3-5 hours)

MLL 114: Chinese Language and Culture I ........................................... 5
MLL 124: French Language and Culture I ........................................... 5
MLL 154: Spanish Language and Culture I ........................................... 5
MLL 184: Russian Language and Culture I ........................................... 5
MLL 194: Korean Language and Culture I ........................................... 5
GEOG 106: World Regional Geography ........................................... 3
GEOG 300: Elements of Geography ........................................... 3
GEOG 304: Human Geography ........................................... 3
WOMEN 399: Global Women's Issues ........................................... 3

Health and Well Being (4-6 hours)

Psychological

PSYCH 155: General Psychology ........................................... 3

Physical (Select one)

FCS 203: Nutrition and Health ........................................... 3
FCS 301: Nutrition ........................................... 3
HHP 150: Lifetime Fitness Concepts ........................................... 1
NURS 303: Introduction to Public Health ........................................... 3

Human Heritage (Select one from two of the following three categories) (6 hours)

History

HIST 101: World History to 1500 ........................................... 3
HIST 102: World History from 1500 ........................................... 3
HIST 201: American History to 1865 ........................................... 3
HIST 202: American History from 1865 ........................................... 3

Literature

ENGL 113: General Literature ........................................... 3
ENGL 114: General Literature (Genre) .......................3
ENGL 116: General Literature (Theme) ......................3
ENGL 315: Mythology ........................................3
ENGL 320: Literature and Film ................................3

**Philosophy**
PHIL 103: Introduction to Philosophy ....................3
PHIL 105: Ethics ............................................3
PHIL 111: Ethics: Applied Emphasis (___) ...............3
PHIL 112: Biomedical Ethics ................................3
PHIL 113: Business Ethics ..................................3
PHIL 114: Environmental Ethics ..........................3
PHIL 208: Logic and Critical Thinking .......................3
PHIL 231: World Religions ..................................3

**Common Body of Knowledge**
ACCTG 201: Financial Accounting ........................3
ACCTG 202: Managerial Accounting ........................3
MGMKT 310: Basic Quantitative Business Methods ..................3
FIN 326: Business Finance ..................................3
MGMKT 327: Organizational Theory and Behavior ..........3
MGMKT 330: Basic Marketing ................................3

**ECON- Three hours selected from**
ECON 330: Money and Banking ..............................3
ECON 418: Intermediate Microeconomics ..................3
ECON 419: Intermediate Macroeconomics ..................3
ECON 640: International Trade ................................3

CIS 420: Management Information Systems ................3
MGMKT 320: Business Statistics ............................3
MGMKT 444: Legal and Social Environment of Business ..............................................3
MGMKT 477: Quantitative Decision Making ................3
MGMKT 626: Operations Management .......................3
MGMKT 645: Business Strategy ..............................3

**Information Systems Major Requirements**
CIS 230: Visual Basic Programming ........................3
and CIS 325: Advanced Visual Basic Programming ........3
or CIS 240: C++ Programming ...............................3
and CIS 250: Principles of Software Design ................3

CIS 380: Application Systems Analysis and Design Methods ........................................3
CIS 470: Computer Networking ...............................3
CIS 615: Database Management ..............................3

**Information Assurance and Computer Security Emphasis**
CIS 350: Introduction to System Administration ..........3
CIS 670: Information Assurance and Computer Security I ........................................3
CIS 671: Information Assurance and Computer Security II ........................................3
ACCTG 422: Internal Auditing ...............................3
ACCTG 522: Information Systems Auditing and Controls ........................................3

**System Design Emphasis**
CIS 345: Object Oriented Programming Using Java ........................................3
CIS 350: Introduction to System Administration ..........3
CIS 640: Software Engineering ...............................3

- CIS Elective numbered 300 and above (3 hours)

Unrestricted Electives (0-5 hours)

Total minimum hours required to receive Bachelor of Business Administration - Computer Information Systems (124 hours)

**Minor in Accounting**

**Minor in Accounting (21 hours)**
ACCTG 201: Financial Accounting ..........................3
ACCTG 202: Managerial Accounting ........................3
ACCTG 315: Intermediate Managerial Accounting ........3
ACCTG 420: Information Technology and Accounting Systems ........................................3

**Two courses from the following (6 hours)**
ACCTG 416: Business Taxation .................................3
ACCTG 422: Internal Auditing .................................3
ACCTG 625: Fraud Examination ...............................3
For the minor in accounting, CIS 420 Management Information Systems may be substituted for ACCTG 420 Information Technology and Accounting Systems.

Minor in Computing
The minor in Computing is available to students seeking the Bachelor of Arts or the Bachelor of Science degree. This minor will consist of a minimum of 21 semester hours chosen from Computer Information Systems courses. At least six hours must be upper division courses (numbered above 299). Students must complete a two course sequence in either C++ or Visual Basic.

Programming Sequence
Choose between CIS 240 and CIS 250 OR CIS 230 and CIS 325.

CIS 240: C++ Programming ........................................3
and CIS 250: Principles of Software Design .................3

CIS 230: Visual Basic Programming ..........................3
and CIS 325: Advanced Visual Basic Programming...........3

An Introduction to Computer Systems
CIS 350: Introduction to System Administration ........3

Electives from Computer Information Systems
Courses numbered above 199 (six hours above 299) (12 hours)

Minor in Fraud Examination
The Justice Studies program, in conjunction with the Department of Accounting and Computer Information Systems, offers a minor in Fraud Examination. Administered in the Department of Accounting and Computer Information Systems, the curriculum is patterned after the requirements found in the nationally recognized Certificate in Fraud Examination, providing coverage of the Certificate areas of: 

Criminology and Ethics; Legal Elements of Fraud;
Financial Transactions; and Fraud Investigation. The demand for persons in this field is expected to increase and the minor represents a significant opportunity for Justice Studies majors who are interested in fraud and other instances of white collar crime.

Core Classes (15 hours)
ACCTG 201: Financial Accounting ..............................3
ACCTG 422: Internal Auditing ..................................3
ACCTG 625: Fraud Examination ...............................3
JUST 223: Basic Interviewing and Counseling Skills
.................................................................3
JUST 522: Crime Scenes and the Law of Evidence ........3

Select one (3 hours)
JUST 528: White Collar Crime ................................3
SOC 547: Criminology ...........................................3

Select one (3 hours)
JUST 500: Criminal Law and Society ..........................3
JUST 501: Criminal Procedure ..................................3
POLS 562: Law and Politics .....................................3

NOTE: Currently, the Internal Revenue Service allows persons who have had a total of 15 hours of accounting and nine hours of other business related classes to apply for "Special Agent" positions. Justice Studies classes add to the qualifications of persons who are interested in such a career.

Minor in Internal Auditing
For the minor in internal auditing, CIS 420 Management Information Systems may be substituted for ACCTG 420 Information Technology and Accounting Systems.

ACCTG 201: Financial Accounting ..............................3
JUST 223: Basic Interviewing and Counseling Skills
..............................................................................3
ENGL 301: Technical/Professional Writing ................3
ACCTG 420: Information Technology and Accounting Systems ........................................3
ACCTG 422: Internal Auditing ..................................3
<table>
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<th>Course Title</th>
<th>Credits</th>
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<td>ACCTG 522</td>
<td>Information Systems Auditing and</td>
<td>3</td>
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<tr>
<td>ACCTG 625</td>
<td>Fraud Examination</td>
<td>3</td>
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</table>

**Master of Business Administration Degree with a Concentration in Accounting**

A concentration in accounting is available with the Masters of Business Administration degree, offered through the Department of Management and Marketing.
Economics, Finance, and Banking

Chairperson: Bienvenido Cortes
Professor(s): Kevin Bracker*, Bienvenido Cortes*;**, Charles C. Fischer*, Paul Grimes*, Anil Lal*, Michael Muoghalu*;**, Connie Shum*
Associate Professor(s):
Assistant Professor(s):
Instructors: June Freund, Michael McKinnis

*Graduate Faculty
**University Professor

Room 211 Kelce
Telephone: 620-235-4547
Fax: 620-235-4572
http://www.pittstate.edu/department/economics/
E-mail: econ@pittstate.edu

Undergraduate

Bachelor of Business Administration Degree with a
Major in Economics or Finance
Minor in Economics

The Department of Economics, Finance and Banking offers baccalaureate degree programs with majors in economics and finance. A minor is offered in economics. The major in economics and the major in finance lead to the Bachelor of Business Administration degree. All students majoring in economics or finance must be admitted to the Kelce College of Business.

Students already admitted to the Kelce College of Business wishing to transfer their major to economics or finance must have a 2.50 GPA on all hours attempted at that time.

A major in economics is designed for students who wish careers in bank management, business forecasting, labor relations, operations analysis, or who wish to pursue managerial positions in governmental and corporate organizations. A major in finance prepares students for careers in banking, investment houses, savings and loan institutions, credit unions, credit management, and for managerial positions in governmental and corporate organizations. The study of economics and finance requires a blend of analytical, evaluative and descriptive skills and can be very rewarding.

Changes in Requirements

Baccalaureate degree curriculums offered by the Department of Economics, Finance and Banking are periodically revised and updated. Such revisions will be communicated by the department to currently enrolled students majoring in its programs. Each student is required to graduate under the most recent curriculum in effect at the time of that student's graduation unless those revisions would extend the student's graduation date. Requests for exceptions to such curriculum revisions should be filed in writing with the department chairperson.

Junior Standing Prerequisite

Most undergraduate courses offered in the Department of Economics, Finance and Banking numbered 300 and above have a junior standing prerequisite. For purposes of this prerequisite, junior standing is defined as the completion of 55 semester hours applicable to the student's degree program.

Bachelor of Business Administration Degree with a Major in Economics or Finance

Students seeking the Bachelor of Business Administration (BBA) degree with a major in economics or finance must complete the following curriculum. At least 50 percent of the business credit hours (i.e., the credit hours from the areas of accounting, economics, finance, management, marketing, and information systems) that are required for the Bachelor in Business Administration degree must be earned at Pittsburg State University.

Due to the growth of multinational corporations and the increased interest in international trade, students preparing for business are encouraged to consider foreign language courses when selecting electives in the area of the humanities.
The general education degree requirements consist of 56-63 credit hours of course work.

**Basic Skills (15 hours)**
COMM 207: Speech Communication ..............................................3
ENGL 101: English Composition ..............................................3
ENGL 190: Honors English Composition ..............................................3
or ENGL 299: Introduction to Research Writing ..............................................3
MATH 113: College Algebra ..............................................3
MATH 143: Elementary Statistics ..............................................3

**General Education Electives (38-44 hours)**

**Sciences (8-9 hours)**

**Natural Sciences (Select one)**
BIOL 111: General Biology ..............................................3
and BIOL 112: General Biology Laboratory ..............................................2
BIOL 113: Environmental Life Science ..............................................4
BIOL 211: Principles of Biology I ..............................................4

**Physical Sciences (Select one)**
CHEM 105: Introductory Chemistry ..............................................3
and CHEM 106: Introductory Chemistry Laboratory ..............................................1
CHEM 107: Chemistry for the Life Sciences ..............................................3
and CHEM 108: Chemistry for the Life Sciences Laboratory ..............................................1
PHYS 160: Physical Geology ..............................................3
and PHYS 165: Physical Geology Laboratory ..............................................1
PHYS 162: Physical Oceanography ..............................................3
and PHYS 163: Physical Oceanography Laboratory ..............................................1
PHYS 166: Meteorology ..............................................3
and PHYS 167: Meteorology Laboratory ..............................................1
PHYS 171: Physical Science ..............................................3
and PHYS 172: Physical Science Laboratory ..............................................1
PHYS 175: Descriptive Astronomy ..............................................3
and PHYS 176: Astronomy Laboratory ..............................................1
PHYS 375: Solar System Astronomy ..............................................3
and PHYS 176: Astronomy Laboratory ..............................................1

**Social Studies (Select one) (3 hours)**
SOC 100: Introduction to Sociology ..............................................3
WOMEN 200: Introduction to Women's Studies ..............................................3

**Political Studies (3 hours)**
POLS 101: U.S. Politics .................................................................3

**Producing and Consuming (9 hours)**
ECON 200: Introduction to Microeconomics ..............................................3
ECON 201: Introduction to Macroeconomics ..............................................3
CIS 130: Computer Information Systems ..............................................3

**Fine Arts and Aesthetic Studies (select one) (2-3 hours)**
ART 155: Printmaking and Paper Arts ..............................................3
ART 178: Introduction to the Visual Arts ..............................................3
ART 188: The Designed World ..............................................3
ART 217: Crafts I .................................................................3
ART 222: Jewelry Design I ...........................................................3
ART 233: Drawing I .................................................................3
ART 244: Ceramics I .................................................................3
ART 266: Sculpture I .................................................................3
ART 277: Painting I .................................................................3
ART 288: Western Art History I ...........................................................3
ART 289: Western Art History II ...........................................................3
ART 311: Art Education .................................................................3
COMM 105: Performance Appreciation ..............................................3
COMM 205: Performance Studies ...........................................................3
COMM 295: Theatre History (___) .........................................................3
ENGL 250: Introduction to Creative Writing ..............................................3
HHP 151: Dance Appreciation ............................................................3
MUSIC 120: Music Appreciation (___) ......................................................3
MUSIC 121: Introduction to Music Literature ..............................................2
MUSIC 321: History of Music ...............................................................3

**Cultural Studies (Select one) (3-5 hours)**
MLL 114: Chinese Language and Culture I ..............................................5
MLL 124: French Language and Culture I ..............................................5
MLL 154: Spanish Language and Culture I ..............................................5
MLL 184: Russian Language and Culture I ..............................................5
MLL 194: Korean Language and Culture I ..............................................5
GEOG 106: World Regional Geography ..............................................3
GEOG 300: Elements of Geography ...........................................................3
GEOG 304: Human Geography ...............................................................3
WOMEN 399: Global Women's Issues .........................................................3
Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ................................................. 3

Physical (Select one)
FCS 203: Nutrition and Health .................................................. 3
FCS 301: Nutrition ................................................................. 3
HHP 150: Lifetime Fitness Concepts .................................. 1
NURS 303: Introduction to Public Health ..................................... 3

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ........................................... 3
HIST 102: World History from 1500 ....................................... 3
HIST 201: American History to 1865 .................................. 3
HIST 202: American History from 1865 ................................. 3

Literature
ENGL 113: General Literature .................................................. 3
ENGL 114: General Literature (Genre) ...................................... 3
ENGL 116: General Literature (Theme) ..................................... 3
ENGL 315: Mythology .............................................................. 3
ENGL 320: Literature and Film .................................................. 3

Philosophy
PHIL 103: Introduction to Philosophy ....................................... 3
PHIL 105: Ethics ................................................................. 3
PHIL 111: Ethics: Applied Emphasis (___) ................................ 3
PHIL 112: Biomedical Ethics ................................................... 3
PHIL 113: Business Ethics ....................................................... 3
PHIL 114: Environmental Ethics .............................................. 3
PHIL 208: Logic and Critical Thinking .................................. 3
PHIL 231: World Religions ...................................................... 3

Common Body of Knowledge
ACCTG 201: Financial Accounting ............................................. 3
ACCTG 202: Managerial Accounting ......................................... 3
MGMT 310: Basic Quantitative Business
Methods ................................................................. 3
FIN 326: Business Finance ..................................................... 3
MGMT 327: Organizational Theory and Behavior
........................................................................................................... 3
MGMT 330: Basic Marketing ...................................................... 3

ECON- Three hours selected from
ECON 330: Money and Banking .............................................. 3
ECON 418: Intermediate Microeconomics ................................ 3
ECON 419: Intermediate Macroeconomics .............................. 3
ECON 640: International Trade .................................................. 3

Students planning to enter the MBA program should take ECON 418.
CIS 420: Management Information Systems ............................ 3
MGMT 320: Business Statistics ............................................... 3
MGMT 444: Legal and Social Environment of Business .......... 3
MGMT 477: Quantitative Decision Making .............................. 3
MGMT 626: Operations Management ........................................ 3
MGMT 645: Business Strategy .................................................. 3

Major selected from the following

Major in Economics (18 hours)
ECON 418: Intermediate Microeconomics ................................ 3
ECON 419: Intermediate Macroeconomics ................................ 3
ECON 650: Econometrics .......................................................... 3
ECON 665: Seminar in Applied Economics ............................... 3

• Electives in Economics (Restricted to ECON 330, 465, 468, 485, and 640; ECON 330 or ECON 640
cannot be applied here if taken under Common Body of Knowledge) (6 hours)

Major in Finance (18 hours)
FIN 621: Investments ............................................................... 3
FIN 623: Financial Institutions and Markets ............................. 3
FIN 624: Investments II .............................................................. 3
FIN 627: Advanced Business Finance ....................................... 3
FIN 631: Seminar in Financial Management .............................. 3
ACCTG 315: Intermediate Managerial Accounting ............... 3
or ACCTG 318: Intermediate Financial Accounting I ............... 3
or ACCTG 520: Advanced Managerial Accounting ................. 3
Minor in Economics
The minor in economics consists of 21 hours of economics including ECON 200 Introduction to Microeconomics and ECON 201 Introduction to Macroeconomics (other courses restricted to ECON 330, 418, 419, 465, 468, 485, 640, 650, and 693; these courses cannot be applied, or counted twice, as elective for another Kelce major program). One course in statistics may be applied to a minor in economics.
Management and Marketing

Chairperson: Eric G. Harris
Associate Professor(s): Eric G. Harris*, Jay van Wyk*, Lynn M. Murray
Assistant Professor(s): Linden Dalecki, Stephen V. Horner, Sang-Heui Lee, Kristen Maceli
Instructors: Shipra Paul, Mary K. Wachter

*Graduate Faculty
**University Professor

Room 110 Kelce
Telephone: 620-235-4588
Fax: 620-235-4513
http://www.pittstate.edu/department/marketing/
E-mail: mgmkt@pittstate.edu

Undergraduate
Bachelor of Business Administration Degree with a
Major in Management or Marketing
Bachelor of Business Administration Degree with a
Major in International Business
Minor in Business Administration
Minor in International Business
Minor in Marketing

Graduate
Master of Business Administration
Master of Business Administration Degree with a Concentration in Accounting

The Department of Management and Marketing offers baccalaureate and masters degree programs. Baccalaureate degree programs are offered in management, marketing and international business. Minors are offered in business administration, international business and marketing. A graduate program is available leading to the Master of Business Administration degree with an emphasis in general administration, international business or a concentration in accounting.

Undergraduate Degree Programs

The department offers majors in management, marketing and international business leading to the Bachelor of Business Administration degree. See Admission to the Kelce College.

Major in Management is designed for students who want a broad background for management positions in business, service industries, manufacturing or government.

Major in Marketing prepares students for positions in sales, merchandising, retail management, and market research in manufacturing, wholesaling and retailing institutions.

Major in International Business is designed for students who wish to pursue global business opportunities and positions.

Changes in Requirements

Baccalaureate degree curricula offered by the Department of Management and Marketing are periodically revised and updated. Such revisions will be communicated by the department to currently enrolled students majoring in its programs. Each student is required to graduate under the most recent curriculum in effect at the time of that student's graduation unless those revisions would extend the student's graduation date. Requests for exceptions to such curriculum revisions should be filed in writing with the department chairperson.

Junior Standing Prerequisite

Many undergraduate courses offered in the Department of Management and Marketing numbered 300 and above have a junior standing prerequisite. For purposes of this prerequisite, junior standing is defined as the completion of 55 semester hours applicable to the student's degree program.

Admission to Management, Marketing or International Business Programs

Students already admitted to the Kelce College of Business wishing to transfer their major to management, marketing or international business must
have a 2.50 grade point average on all hours attempted at that time.

**Bachelor of Business Administration**  
**Degree with a Major in Management or Marketing**  
Students seeking the Bachelor of Business Administration (BBA) degree with a major in management or marketing must complete the following curriculum. At least 24 semester hours of required upper division business courses must be taken at Pittsburg State University.

Due to the growth of multi-national corporations and the increased interest in international trade, students preparing for careers in business are encouraged to consider foreign language courses when selecting electives in the area of the humanities.

**Basic Skills (15 hours)**  
COMM 207: Speech Communication .................................. 3  
ENGL 101: English Composition .................................... 3  
ENGL 190: Honors English Composition .......................... 3  
or ENGL 299: Introduction to Research Writing ............ 3  
MATH 113: College Algebra ......................................... 3  
MATH 143: Elementary Statistics ................................... 3

**General Education Electives (38-44 hours)**

**Sciences (8-9 hours)**

**Natural Sciences (Select one)**  
BIOL 111: General Biology ........................................... 3  
and BIOL 112: General Biology Laboratory ...................... 2  
BIOL 113: Environmental Life Science ........................... 4  
BIOL 211: Principles of Biology I .................................. 4

**Physical Sciences (Select one)**  
CHEM 105: Introductory Chemistry ................................. 3  
and CHEM 106: Introductory Chemistry Laboratory .......... 1  
CHEM 107: Chemistry for the Life Sciences .................... 3  
and CHEM 108: Chemistry for the Life Sciences Laboratory .................................................................................. 1

**PHYS 160: Physical Geology .......................................... 3  
and PHYS 165: Physical Geology Laboratory .................... 1  
PHYS 162: Physical Oceanography ................................ 3  
and PHYS 163: Physical Oceanography Laboratory .......... 1  
PHYS 166: Meteorology .................................................. 3  
and PHYS 167: Meteorology Laboratory ......................... 1  
PHYS 171: Physical Science ............................................ 3  
and PHYS 172: Physical Science Laboratory .................... 1  
PHYS 175: Descriptive Astronomy .................................. 3  
and PHYS 176: Astronomy Laboratory ......................... 1  
PHYS 375: Solar System Astronomy ............................... 3  
and PHYS 176: Astronomy Laboratory ......................... 1

**Social Studies (Select one) (3 hours)**  
SOC 100: Introduction to Sociology ............................... 3  
WOMEN 200: Introduction to Women's Studies ............... 3

**Political Studies (3 hours)**  
POLS 101: U.S. Politics .................................................. 3

**Producing and Consuming (9 hours)**  
ECON 200: Introduction to Microeconomics .................... 3  
ECON 201: Introduction to Macroeconomics .................... 3  
CIS 130: Computer Information Systems ........................ 3

**Fine Arts and Aesthetic Studies (select one) (2-3 hours)**  
ART 155: Printmaking and Paper Arts ............................ 3  
ART 178: Introduction to the Visual Arts ....................... 3  
ART 188: The Designed World ...................................... 3  
ART 217: Crafts I ....................................................... 3  
ART 222: Jewelry Design I ............................................ 3  
ART 233: Drawing I ..................................................... 3  
ART 244: Ceramics I .................................................... 3  
ART 266: Sculpture I .................................................... 3  
ART 277: Painting I ..................................................... 3  
ART 288: Western Art History I .................................... 3  
ART 289: Western Art History II .................................. 3  
ART 311: Art Education ................................................ 3  
COMM 105: Performance Appreciation .......................... 3  
COMM 205: Performance Studies .................................. 3  
COMM 295: Theatre History (___) ................................. 3  
ENGL 250: Introduction to Creative Writing .................... 3  
HHP 151: Dance Appreciation .................................... 3
MUSIC 120: Music Appreciation (___) ................. 3
MUSIC 121: Introduction to Music Literature .......... 2
MUSIC 321: History of Music ................................ 3

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I ........... 5
MLL 124: French Language and Culture I ........... 5
MLL 154: Spanish Language and Culture I ........... 5
MLL 184: Russian Language and Culture I ........... 5
MLL 194: Korean Language and Culture I ........... 5
GEOG 106: World Regional Geography ................ 3
GEOG 300: Elements of Geography ..................... 3
GEOG 304: Human Geography ........................... 3
WOMEN 399: Global Women's Issues .................. 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology .......................... 3

Physical (Select one)
FCS 203: Nutrition and Health .......................... 3
FCS 301: Nutrition ........................................ 3
HHP 150: Lifetime Fitness Concepts ..................... 1
NURS 303: Introduction to Public Health ............... 3

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ....................... 3
HIST 102: World History from 1500 .................... 3
HIST 201: American History to 1865 ................... 3
HIST 202: American History from 1865 ............... 3

Literature
ENGL 113: General Literature ........................... 3
ENGL 114: General Literature (Genre) .................. 3
ENGL 116: General Literature (Theme) .................. 3
ENGL 315: Mythology ..................................... 3
ENGL 320: Literature and Film ........................... 3

Philosophy
PHIL 103: Introduction to Philosophy .................. 3
PHIL 105: Ethics ........................................... 3
PHIL 111: Ethics: Applied Emphasis (___) ............ 3
PHIL 112: Biomedical Ethics ............................. 3
PHIL 113: Business Ethics ............................... 3
PHIL 114: Environmental Ethics ......................... 3
PHIL 208: Logic and Critical Thinking .................. 3
PHIL 231: World Religions .............................. 3

Common Body of Knowledge
ACCTG 201: Financial Accounting ...................... 3
ACCTG 202: Managerial Accounting .................... 3
FIN 326: Business Finance ............................... 3
MGMKT 310: Basic Quantitative Business Methods ........................................ 3
MGMKT 327: Organizational Theory and Behavior .... 3
MGMKT 330: Basic Marketing ............................ 3

ECON- Three hours selected from
ECON 330: Money and Banking ......................... 3
ECON 418: Intermediate Microeconomics .............. 3
ECON 419: Intermediate Macroeconomics ............. 3
ECON 640: International Trade .......................... 3

Students planning to enter the MBA program should take ECON 418.

CIS 420: Management Information Systems ............ 3
MGMKT 320: Business Statistics ......................... 3
MGMKT 444: Legal and Social Environment of Business ..................................... 3
MGMKT 477: Quantitative Decision Making ............ 3
MGMKT 626: Operations Management .................. 3
MGMKT 645: Business Strategy .......................... 3

Major in Management (21 hours)
MGMKT 628: Advanced Organizational Behavior ....... 3
MGMKT 629: Human Resource Management .......... 3
MGMKT 650: Quality Management ..................... 3
MGMKT 439: International Business .................... 3
or MGMKT 611: International Marketing ............... 3

Two courses selected from:
COMM 450: Small Group Communication ................ 3
COMM 629: Theories of Human Communication .......... 3
COMM 755: Organizational Communication ............. 3
ECON 465: Collective Bargaining ........................................ 3
ECON 468: Labor Economics ........................................... 3
EST 393: Introduction to Industrial Safety ......................... 3
HRD 596: Introduction to Human Resource Development ........................................ 3
PSYCH 575: Industrial and Organizational Psychology ........................................................................ 3

- One elective course selected from Kelce upper division courses (3 hours)

**Major in Marketing (21 hours)**

MGMKT 430: Consumer Behavior .................................... 3
MGMKT 534: Marketing Research ..................................... 3
MGMKT 631: Advanced Marketing Management ............. 3

**Two courses selected from:**

MGMKT 435: Retail Management ...................................... 3
MGMKT 481: Advertising Management ............................ 3
MGMKT 482: Sales Management ...................................... 3
MGMKT 532: Marketing Channel Management ............... 3
MGMKT 600: Topics in Business (____) ........................... 3
MGMKT 611: International Marketing .............................. 3
or MGMKT 439: International Business .......................... 3

- One elective course selected from Kelce upper division courses (3 hours)

General Electives (electives either in Kelce College or outside Kelce) (4-11 hours)

Total minimum hours required for the degree (124 hours)

**Bachelor of Business Administration**

**Degree with a Major in International Business**

The goal of the International Business major is to provide high-quality, in-depth education in international affairs, to cultivate foreign language and inter-cultural communications skills, to provide opportunities for study abroad, to enhance students’ vocational skills in an increasingly interconnected world, and to provide an intellectual climate that cultivates curiosity, tolerance and an eagerness to learn about the world.

**Basic Skills (15 hours)**

COMM 207: Speech Communication ............................. 3
ENGL 101: English Composition ................................... 3
ENGL 190: Honors English Composition ....................... 3
or ENGL 299: Introduction to Research Writing ............ 3
MATH 113: College Algebra .......................................... 3
MATH 143: Elementary Statistics ................................... 3

**General Education Electives (51-55 hours)**

**Sciences (8-9)**

**Natural Sciences (Select one)**

BIOL 111: General Biology ........................................... 3
and BIOL 112: General Biology Laboratory .................... 2
BIOL 113: Environmental Life Science .......................... 4
BIOL 211: Principles of Biology I ................................... 4

**Physical Sciences (Select one)**

CHEM 105: Introductory Chemistry .............................. 3
and CHEM 106: Introductory Chemistry Laboratory ....... 1
CHEM 107: Chemistry for the Life Sciences .................. 3
and CHEM 108: Chemistry for the Life Sciences Laboratory ........................................ 1
PHYS 160: Physical Geology ......................................... 3
and PHYS 165: Physical Geology Laboratory ................. 1
PHYS 162: Physical Oceanography ............................... 3
and PHYS 163: Physical Oceanography Laboratory ....... 1
PHYS 166: Meteorology ............................................. 3
and PHYS 167: Meteorology Laboratory ....................... 1
PHYS 171: Physical Science ......................................... 3
and PHYS 172: Physical Science Laboratory ................. 1
PHYS 175: Descriptive Astronomy ............................... 3
and PHYS 176: Astronomy Laboratory ....................... 1
PHYS 375: Solar System Astronomy ............................ 3
and PHYS 176: Astronomy Laboratory ....................... 1

**Social Studies (Select one) (3 hours)**

SOC 100: Introduction to Sociology ............................. 3
WOMEN 200: Introduction to Women's Studies ............ 3
**Political Studies (3 hours)**
POLS 101: U.S. Politics ................................................. 3

**Producing and Consuming (9 hours)**
ECON 200: Introduction to Microeconomics ................. 3
ECON 201: Introduction to Macroeconomics ................. 3
CIS 130: Computer Information Systems .................. 3

**Fine Arts and Aesthetic Studies (select one)**
* (2-3 hours)
ART 155: Printmaking and Paper Arts .................... 3
ART 178: Introduction to the Visual Arts .................. 3
ART 188: The Designed World .......................... 3
ART 217: Crafts I ......................................... 3
ART 222: Jewelry Design I .................................. 3
ART 233: Drawing I ....................................... 3
ART 244: Ceramics I ...................................... 3
ART 266: Sculpture I ..................................... 3
ART 277: Painting I ....................................... 3
ART 288: Western Art History I .......................... 3
ART 289: Western Art History II ......................... 3
ART 311: Art Education .................................. 3
COMM 105: Performance Appreciation ..................... 3
COMM 205: Performance Studies .......................... 3
COMM 295: Theatre History (____) ....................... 3
ENGL 250: Introduction to Creative Writing .............. 3
HHP 151: Dance Appreciation ........................... 3
MUSIC 120: Music Appreciation (____) ................. 3
MUSIC 121: Introduction to Music Literature ............ 2
MUSIC 321: History of Music .................................. 3

**Cultural Studies (16 hours)**
GEOG 106: World Regional Geography .................... 3

- Area Study Course or Cultural Study Course (3 hours)*
- Foreign Language or Equivalent (10 hours)**

*Students must obtain approval of the course from the International Business Major advisor.

**Students already proficient in a foreign language may take a departmentally approved language proficiency test. The students will be required to pay for any applicable costs of the exam. A passing score on the test, as deemed appropriate by the international business advisor, will be required. Students are not given PSU credit for passing the proficiency exam, nor do they earn PSU credit hours for passing the exam. Students may be required to take approved electives in lieu of the 10 hour foreign language requirement if a passing grade on the exam is achieved. The International Business adviser, or departmental representative, will determine substitution courses. In all cases, students must earn the minimum number of credit hours required for the major.

**Health and Well Being (4-6 hours)**

**Psychological**
PSYCH 155: General Psychology .......................... 3

**Physical (Select one)**
FCS 203: Nutrition and Health .......................... 3
FCS 301: Nutrition ......................................... 3
HHP 150: Lifetime Fitness Concepts .................... 1
NURS 303: Introduction to Public Health ............. 3

**Human Heritage (Select one from two of the following three categories) (6 hours)**

**History**
HIST 101: World History to 1500 ....................... 3
HIST 102: World History from 1500 ................... 3
HIST 201: American History to 1865 .................. 3
HIST 202: American History from 1865 ............. 3

**Literature**
ENGL 113: General Literature .......................... 3
ENGL 114: General Literature (Genre) ............... 3
ENGL 116: General Literature (Theme) ............... 3
ENGL 315: Mythology .................................... 3
ENGL 320: Literature and Film .......................... 3

**Philosophy**
PHIL 103: Introduction to Philosophy .................. 3
PHIL 105: Ethics ........................................... 3
PHIL 111: Ethics: Applied Emphasis (____) ........... 3
PHIL 112: Biomedical Ethics ............................ 3
PHIL 113: Business Ethics ............................... 3
PHIL 114: Environmental Ethics ........................................ 3
PHIL 208: Logic and Critical Thinking .............................. 3
PHIL 231: World Religions ............................................... 3

**Common Body of Knowledge**

ACCTG 201: Financial Accounting .................................. 3
ACCTG 202: Managerial Accounting ............................... 3
CIS 420: Management Information Systems ..................... 3
FIN 326: Business Finance .............................................. 3
ECON 640: International Trade ........................................ 3
MGMKT 310: Basic Quantitative Business Methods ............ 3
MGMKT 320: Business Statistics ....................................... 3
MGMKT 327: Organizational Theory and Behavior ............. 3
MGMKT 330: Basic Marketing .......................................... 3
MGMKT 444: Legal and Social Environment of Business .... 3
MGMKT 477: Quantitative Decision Making ...................... 3
MGMKT 626: Operations Management ............................. 3
MGMKT 645: Business Strategy ...................................... 3

**Major in International Business (18 hours)**

MGMKT 439: International Business ................................. 3
MGMKT 601: Special Topics (International Experience) ........ 3
MGMKT 605: Cross Cultural Analysis ............................... 3
MGMKT 611: International Marketing ............................... 3

**Two courses selected from related electives:**

MGMKT 625: Emerging Markets .................................... 3
COMM 601: Intercultural Communication .......................... 3
GEOG 507: Geography of the Global Economy .................. 3
POLS 530: International Relations ................................. 3
POLS 630: International Political Economy ...................... 3

MGMKT 601 Special Topics (International Experience)- A number of experiences may meet this requirement (e.g. study abroad and so forth). All International Experiences must be approved in advance by the International Business Major advisor.

**General electives to meet 124 hour minimum requirement (0-1 hours)**

Total hours for Bachelor of Business Administration Degree with a Major in International Business (124-128 hours)

**Minor in Business Administration**

Students with a major in other colleges or departments may wish to minor in business. The minor in business administration may be used to satisfy the minor requirement for the Bachelor of Arts degree. It may also be used to satisfy the minor requirement for several majors under the Bachelor of Science degree.

The Department of Management and Marketing welcomes students from those areas.

The minor in business administration may not be applied to the Bachelor of Business Administration degree.

**Minor in Business Administration**

- Accounting (6 hours)*

ECON 200: Introduction to Microeconomics ......................... 3
FIN 326: Business Finance .............................................. 3
MGMKT 327: Organizational Theory and Behavior ............... 3
MGMKT 330: Basic Marketing .......................................... 3
MGMKT 444: Legal and Social Environment of Business .... 3

* Prerequisite for Accounting and ECON 200: sophomore standing

** Prerequisites for FIN 326: ECON 200 Introduction to Microeconomics, ACCTG 202 Managerial Accounting and junior standing.

***Prerequisite for MGMKT 327, MGMKT 330, MGMKT 444: junior standing.
Minor in International Business
Students with a major in other colleges may wish to minor in international business. The minor in international business may be used to satisfy the minor requirement for the Bachelor of Arts degree. It may also be used to satisfy the minor requirement for several majors under the Bachelor of Science degree. The Department of Management and Marketing welcomes students from those areas.

The following minor is available for business majors and non-business majors.

International Business Minor (For College of Business Majors)
• Introduction to a foreign language or equivalent** (5 hours)

MGMKT 439: International Business .......................... 3
MGMKT 601: Special Topics (International Experience) ................................................................. 3
MGMKT 605: Cross Cultural Analysis .......................... 3
or MGMKT 611: International Marketing .......................... 3

Two courses selected from related electives:
MGMKT 625: Emerging Markets .......................... 3
COMM 601: Intercultural Communication .......................... 3
ECON 640: International Trade .......................... 3
GEOG 507: Geography of the Global Economy .......................... 3
POLS 530: International Relations .......................... 3
POLS 630: International Political Economy .......................... 3

Test, as deemed appropriate by the international business advisor, will be required. Students are not given PSU credit for passing the proficiency exam, nor do they earn PSU credit hours for passing the exam. Students may be required to take approved electives in lieu of the 5 hour foreign language requirement if a passing grade on the exam is achieved. The International Business advisor, or departmental representative, will determine substitution courses. In all cases, students must earn the minimum number of credit hours required for the minor.

International Business Minor (For Non-Business Majors)
ECON 201: Introduction to Macroeconomics .................. 3
MGMKT 327: Organizational Theory and Behavior ......................................................... 3
MGMKT 330: Basic Marketing .......................... 3
MGMKT 439: International Business .......................... 3
MGMKT 444: Legal and Social Environment of Business .......................... 3
MGMKT 601: Special Topics (International Experience) .......................... 3

• Introduction to a foreign language or equivalent .......................... (5 hours)**

MGMKT 601 Special Topics (International Experience)- A number of experiences may meet this requirement (e.g. study abroad and so forth). All International Experiences must be approved in advance by the International Business Major advisor.

** Students already proficient in a foreign language may take a departmentally approved language proficiency test. The students will be required to pay for any applicable costs of the exam. A passing score on the test, as deemed appropriate by the international business advisor, will be required. Students are not given PSU credit for passing the proficiency exam, nor do they earn PSU credit hours for passing the exam. Students may be required to take approved electives in lieu of the 5 hour foreign language requirement if a passing grade on the exam is achieved. The International Business advisor, or departmental representative, will determine substitution courses. In
all cases, students must earn the minimum number of credit hours required for the minor.

Minor in Marketing
Students with a major in other colleges or departments may wish to minor in marketing. The minor in marketing may be used to satisfy the minor requirement for the Bachelor of Arts degree. It may also be used to satisfy the minor requirement for several majors under the Bachelor of Science degree. The Department of Management and Marketing welcomes students from those areas.

The minor in marketing is available to all BBA degree seekers except marketing majors.

Minor in Marketing
MGMKT 327: Organizational Theory and Behavior .......................................................... 3
MGMKT 330: Basic Marketing ............................................................................. 3
MGMKT 430: Consumer Behavior ............................................................................. 3
MGMKT 444: Legal and Social Environment of Business ............................................. 3

Choose three of the following seven electives
MGMKT 435: Retail Management ................................................................. 3
MGMKT 481: Advertising Management ................................................................. 3
MGMKT 482: Sales Management ............................................................................. 3
MGMKT 532: Marketing Channel Management ......................................................... 3
MGMKT 600: Topics in Business (___) ..................................................................... 3
MGMKT 611: International Marketing ...................................................................... 3

Master of Business Administration
The Master of Business Administration degree is a graduate professional program which emphasizes breadth of preparation in the various competencies required of business executives. Depth is provided through the selection of a limited concentration in accounting and general administration. The MBA program is ideally suited for individuals whose undergraduate degrees were in areas other than business, as well as for students with the degree in business. Additional information regarding admission and degree requirements may be obtained from the MBA program director.

MBA Program Mission
The mission of the Kelce College of Business' Masters in Business Administration (MBA) Program is to support the University and College missions by providing quality graduate business education. The program serves students, employers, and citizens in southeast Kansas and the surrounding Tri-state region, as well as a number of international constituencies.

Admissions
All students seeking admission to the MBA program must take the Graduate Management Admission Test (GMAT) prior to admission to the MBA program. Admission to the MBA program requires the following: (1) an undergraduate degree from an accredited college or university; (2) a minimum GMAT score of 400; and (3) a minimum of 1050 points based on the formula: 200 times the overall undergraduate grade point average plus the Graduate Management Admission Test (GMAT) score or at least 1100 points based on the formula: 200 times the upper division undergraduate GPA plus the GMAT score.

Applicants who have at least 950 total points based on the GMAT score and the undergraduate grade point average or at least 1000 points based on the GMAT score and the junior/senior average may petition the MBA Admissions Committee for admission to the program. The evaluation of such petitions will be based on factors such as work experience, educational background, personal and/or professional references, personal interviews and other data which the student may develop to show evidence of high promise in the program. The decision of the MBA Admissions Committee on such petitions is final.

A student whose native language is not English must submit a minimum TOEFL score of 550. Further information concerning the GMAT and admission requirements may be obtained from the MBA program director.
Senior/Graduate Admissions

Seniors at PSU may apply for admission to the MBA program. They may take graduate work and receive graduate credit if they are in their final semester of undergraduate work. In addition, the following requirements must be met: (a) overall grade point average (GPA) of at least 3.25; (b) a minimum GMAT score of 400. A student whose native language is not English must submit a minimum TOEFL score of 550 on the paper-based exam, 213 on the computer-based exam, 79 on the internet based exam, or be completing a baccalaureate degree at Pittsburg State University.

The planned academic program for senior-graduate semester will not exceed sixteen semester hours including the graduate work. Upon application to the Dean of Graduate and Continuing Studies, the student may be approved as a senior-graduate student and may register for no more than six hours of graduate work. The specific courses available for senior-graduate status are MGMKT 839 (Marketing Strategy) and FIN 836 (Financial Strategy). If the senior-graduate does not complete the undergraduate degree in the semester in which they are enrolling in courses for graduate credit, graduate credit will not be awarded for the courses taken.

Academic Actions

An MBA student must maintain a B average (at least a 3.00 GPA) in all foundation courses taken at Pittsburg State University after admission to the MBA Program. An MBA student is issued a warning letter upon receipt of a grade of "C" or lower. An MBA student is placed on probation upon receipt of a second grade of "C" or lower. An MBA student is issued a letter indicating that his or her graduate status is in jeopardy at any point when his or her cumulative grade point average in graduate work falls below 3.00.

Curriculum Requirements

The course requirements for the MBA degree consist of a minimum of 34 hours and a maximum of 64 hours. The 30 semester hours of foundation courses may be waived if appropriate undergraduate courses have been taken. None of the decision and strategy, integrating or elective courses may be waived.

A minimum of 31 hours beyond the foundation courses must be numbered 800 and above. No more than three hours of graduate work may be taken in courses numbered between 500 and 699.

Additional information regarding admission and degree requirements may be obtained from the MBA program director.

The following courses must be taken unless specifically waived by the MBA program director based on previous academic work. The equivalency of courses presented as waivers to corresponding courses at Pittsburg State University will be determined on an individual basis by the MBA program director.

General Administrative Emphasis (64 hours)

Foundation Courses (30 hours)

ACCTG 201: Financial Accounting ......................... 3
ACCTG 202: Managerial Accounting ......................... 3
CIS 420: Management Information Systems ................. 3
FIN 326: Business Finance ........................................ 3
MGMKT 320: Business Statistics ................................ 3
MGMKT 327: Organizational Theory and Behavior ........... 3
MGMKT 330: Basic Marketing .................................... 3
MGMKT 444: Legal and Social Environment of Business ........................................ 3
MGMKT 626: Operations Management ......................... 3
ECON 805: Economic Analysis ................................ 3
or 9 hours of economics including 3 hours of intermediate microeconomics

Decision and Strategy Courses (22 hours)

ACCTG 814: Management Control Systems .................. 3
FIN 836: Financial Strategy ....................................... 3
MGMKT 801: MBA Experience .................................. 1
MGMKT 826: Quantitative Business Analysis ................. 3
MGMKT 828: Leadership and Behavioral Management ......................... 3
MGMT 830: Business, Government and Society ..........3
MGMT 831: International Business ..........................3
MGMT 839: Marketing Strategy ...............................3

Integrating Course
MGMT 895: Strategic Management ............................3

Approved Electives (choose any three courses)
CIS 801: Topics: (___) .............................................1-3
ETECH 804: Quality: Management and Control .............3
PSYCH 816: Group Dynamics ....................................3
ACCTG 819: Cost Management ..................................3
MGMT 821: Topics in Business (___) .........................1-3
ECON 827: Seminar in Economics (___) ......................3
ETECH 831: Value Engineering ...................................3
TE 841: Production Technology: Manufacturing (___) .................................................................3
GRT 888: Product Design and Management ....................3

• One elective may be taken at the 500-600 level subject to Advisor approval.

If CIS 801 or MGMT 821 is chosen, the course must be taken for three hours.

International Business Emphasis (73 hours)

Foundation Courses (39 hours)

• Foreign Language or Equivalent (9 hours)

ACCTG 201: Financial Accounting ............................3
ACCTG 202: Managerial Accounting ..........................3
CIS 420: Management Information Systems ..................3
FIN 326: Business Finance .......................................3
MGMT 320: Business Statistics ...................................3
MGMT 327: Organizational Theory and Behavior ...........3
MGMT 330: Basic Marketing ......................................3
MGMT 444: Legal and Social Environment of Business .................................................................3
MGMT 626: Operations Management ..........................3
ECON 805: Economic Analysis ..................................3

or 9 hours of economics including 3 hours of intermediate microeconomics

Decision and Strategy Courses (25 hours)
ACCTG 814: Management Control Systems ..................3
FIN 836: Financial Strategy ........................................3
MGMT 801: MBA Experience .....................................1
MGMT 821: Topics in Business (___) .........................1-3
MGMT 826: Quantitative Business Analysis ..................3
MGMT 828: Leadership and Behavioral Management .....................3
MGMT 830: Business, Government and Society ............3
MGMT 831: International Business ............................3
MGMT 839: Marketing Strategy ...............................3

MGMT 821 Topics in Business (International Experience)- A number of experiences may meet this requirement (e.g. study abroad and so forth). All international experiences must be approved in advance by the International Business Emphasis advisor. This course must be taken for three hours.

Integrating Course
MGMT 895: Strategic Management ............................3

Approved Electives (Choose any two courses) (6 hours)
ACCTG 811: Seminar in Accounting (___) ....................1-3
CIS 801: Topics: (___) .............................................1-3
ECON 827: Seminar in Economics (___) ......................3
MGMT 605: Cross Cultural Analysis ...........................3
MGMT 611: International Marketing ...........................3
MGMT 821: Topics in Business (___) .........................1-3
POLS 630: International Political Economy ..................3
SOC 676: Global Sociology .......................................3

• One elective may be taken at the 500-600 level subject to advisor approval.

If ACCTG 811, CIS 801 or MGMT 821 is chosen, the course must be taken for three hours.

ACCTG 811 Seminar in Accounting must be taken as International Accounting
CIS 801 Topics must be taken as Global Information MGT

ECON 827 Seminar in Economics must be taken as Seminar in International Economics or Finance

MGMKT 821 Topics in Business must be taken as International

Master of Business Administration Degree with a Concentration in Accounting
Concentration in Accounting

The Master of Business Administration degree is a graduate professional program which emphasizes breadth of preparation in the various competencies required of business executives. Depth is provided through the selection of a limited concentration in accounting or general administration. The MBA program is ideally suited for individuals whose undergraduate degree was in business as well as for students whose undergraduate major was in mathematics, technology, engineering, nursing, social work, natural science, or one of the physical sciences. Students whose undergraduate degree includes an accounting major may, through careful planning, complete the BBA degree and the MBA degree with a concentration in accounting in five years.

MBA Program Mission

The mission of the College of Business’ Masters of Business Administration (MBA) Program is to support the University and College missions by providing quality graduate business education. The program serves students, employers, and citizens in southeast Kansas and the surrounding tri-states region, as well as a number of international constituencies.

Admissions

Admission to the MBA program requires the following:

1. an undergraduate degree from an accredited college or university;
2. a minimum Graduate Management Admission Test (GMAT) score of 400; and
3. a minimum of 1050 points based on the formula: 200 times the overall undergraduate grade point average (GPA) plus the GMAT score or at least 1100 points based on the formula: 200 times the upper division undergraduate GPA plus the GMAT score.

Applicants who have at least 950 total points based on the GMAT score and the undergraduate GPA or at least 1000 points based on the GMAT score and the junior/senior GPA may petition the MBA Admissions Committee for probationary admission to the program. The evaluation of such petitions will be based on factors such as work experience, educational background, personal and/or professional references, personal interviews and other data which the student may develop to show evidence of high promise in the program. The decision of the MBA Admissions Committee on such petitions is final.

A student whose native language is not English must submit a minimum TOEFL score of 550. Further information concerning the GMAT and admission requirements may be obtained from the MBA program director.

If probationary admission is granted, the following minimum conditions must be met:

1. The student is limited to enrollment in 12 or fewer hours in the first semester of enrollment, and
2. The student is required to attain grades of "B" or better for the first semester for full-time students and for the first nine hours completed for part-time students. (If a part-time student is enrolled in more than three hours during the semester in which nine cumulative hours are completed, the entire enrollment for that semester will be included in the requirement for grades of "B" or better.)

Students admitted on probationary status under this policy will be fully admitted after satisfying the above conditions. Students failing to satisfy these conditions will be dismissed from the program until all unconditional admission requirements are met.

Admission - Senior Graduate

Seniors at PSU may apply for admission to the MBA program. They may take graduate work and receive graduate credit if they are in their final semester of
undergraduate work. In addition, the following requirements must be met: (a) overall grade point average (GPA) of at least 3.25; (b) minimum GMAT score of 400. A student whose native language is not English must submit a minimum TOEFL score of 550 on the paper-based exam or 213 on the computer-based exam or be completing a baccalaureate degree at Pittsburg State University.

The planned academic program for the senior-graduate semester will not exceed sixteen semester hours including the graduate work. Upon application to the Dean of Graduate and Continuing Studies, the student may be approved as a senior-graduate student and may register for no more than six hours of graduate work. The specific courses available for senior-graduate status are MGMKT 839 (Marketing Strategy) and FIN 836 (Financial Strategy). If the senior-graduate does not complete the undergraduate degree in the semester in which they are enrolling in courses for graduate credit, graduate credit will not be awarded for the courses taken.

**Academic Actions**

An MBA student must maintain a “B” average (at least a 3.00 GPA) in all foundation courses taken at Pittsburg State University after admission to the MBA Program. An MBA student is issued a warning letter upon receipt of a grade of “C” or lower. An MBA student is placed on probation upon receipt of a second grade of "C" or lower. An MBA student is issued a letter indicating that his or her graduate status is in jeopardy at any point when his or her cumulative grade point average in graduate work falls below 3.00.

**Curriculum Requirements**

The course requirements for the MBA degree consist of a minimum of 34 hours and a maximum of 82 hours. The 48 semester hours of foundation courses may be waived if appropriate undergraduate courses have been taken. None of the decision and strategy, integrating or elective courses may be waived.

A minimum of 31 hours beyond the foundation courses must be numbered 800 and above. No more than three hours of graduate work may be taken in courses numbered between 500 and 699.

Additional information regarding admission and degree requirements may be obtained from the MBA program director or from the chairperson of the Department of Accounting.

The following courses must be taken unless specifically waived by the MBA program director based on previous academic work. The equivalency of courses presented as waivers to corresponding courses at Pittsburg State University will be determined on an individual basis by the MBA program director.

**Foundation Courses (48 hours)**

MGMKT 320: Business Statistics ....................................... 3
MGMKT 327: Organizational Theory and Behavior ........................................... 3
MGMKT 330: Basic Marketing ........................................... 3
MGMKT 444: Legal and Social Environment of Business ........................................... 3
MGMKT 626: Operations Management ....................................... 3
ACCTG 201: Financial Accounting ........................................... 3
ACCTG 202: Managerial Accounting ....................................... 3
ACCTG 315: Intermediate Managerial Accounting ....................................... 3
ACCTG 410: Intermediate Financial Accounting II ....................................... 3
ACCTG 416: Business Taxation ........................................... 3
ACCTG 420: Information Technology and Accounting Systems ....................................... 3
ACCTG 422: Internal Auditing ........................................... 3
ACCTG 585: Accounting Law ........................................... 3
FIN 326: Business Finance ........................................... 3
ECON 805: Economic Analysis ........................................... 3
or 9 hours of economics including an upper division economics course (3 hours)

**Decision and Strategy Courses (22 hours)**

MGMKT 801: MBA Experience ....................................... 1
ACCTG 814: Management Control Systems ....................................... 3
MGMKT 826: Quantitative Business Analysis ....................................... 3
MGMKT 828: Leadership and Behavioral Management ....................................... 3
MGMKT 830: Business, Government and Society ....................................... 3
MGMKT 831: International Business .........................3
MGMKT 839: Marketing Strategy .................................3
FIN 836: Financial Strategy ........................................3

**Integrating Course**
MGMKT 895: Strategic Management ............................3

**Approved Electives* (choose any three courses)**
ACCTG 805: Internship in Accounting .........................1-3
ACCTG 811: Seminar in Accounting (___) ......................1-3
ACCTG 812: Tax Research ........................................3
ACCTG 813: Financial Statement Analysis ....................3
ACCTG 815: Financial Statement Auditing ....................3
ACCTG 819: Cost Management ................................3

If ACCTG 805 or ACCTG 811 is chosen, the course must be taken for three hours.

*All electives must be taken from the Department of Accounting and approved by the MBA Director. Candidates wishing to sit for the CPA examination should consult with the Chairperson of the Accounting Department with respect to curriculum requirements.

Total Degree Requirement hours (82 hours)
College of Education
Dean: Howard W. Smith
Room: 115 Hughes Hall
Telephone: 620-235-4518
Fax: 620-235-4520
Email: edsc@pittstate.edu

Departments
Health, Human Performance and Recreation
Psychology and Counseling
Teaching and Leadership

Mission, Programs, and Accreditation

The mission of the College of Education is to prepare competent, committed, caring professionals, provide service to the various communities of which we are a part, and expand the body of knowledge through research and dissemination activities.

The programs of the College are designed (1) to provide professional curricula for the preparation of teachers, administrators, various school services, psychologists, counselors, and recreationists; (2) to offer undergraduate work leading to the baccalaureate degree with majors in early childhood/late childhood K-6, early childhood unified, exercise science, physical education, psychology, and recreation; (3) to offer graduate work for elementary and secondary teachers; school and college service personnel; administrators; psychologists; counselors; and recreational therapists. The College of Education is also organized to provide professional services to schools and to other educational and social agencies. An important role is to encourage and to conduct educational research.

Pittsburg State University is a member of the American Association of Colleges for Teacher Education, and both undergraduate and graduate preparation programs for teaching and school service positions are accredited by the National Council for Accreditation of Teacher Education. The Clinical Mental Health Counseling Program is accredited by the Council for Accreditation of Counseling and Related Educational Programs. The Clinical Psychology program is accredited by the Masters of Psychology Accreditation Council.

Baccalaureate Degrees
Curricula are offered leading to the Bachelor of Arts, the Bachelor of Science, and the Bachelor of Science in Education degrees. The following baccalaureate degrees are offered through the College and the respective departments:

Bachelor of Arts Degree
Psychology

Bachelor of Science Degree
Exercise Science
Psychology
Recreation

Bachelor of Science in Education Degree
Early Childhood/Late Childhood (K-6)
Early Childhood Unified (ECU) Birth Through Third Grade Licensure
Physical Education
Psychology

Graduate Degrees
The Departments within the College offer the following graduate degrees, majors and emphases:

Master of Arts Degree
Teaching (Secondary or Special Education Emphases)

Master of Science Degree
Counseling (Community or School Emphases)
Educational Leadership
Educational Technology (Technology Facilitator-Industrial Setting; Technology Facilitator-Educational Setting; Library Media Licensure Emphases)
Physical Education
Psychology (General or Clinical)
Reading (Reading Specialist-Licensure and Classroom Reading Teacher Emphases)
Special Education Teaching
Teaching (Elementary, English for Speakers of Other Languages or Secondary Emphases)

Specialist in Education Degree
Advanced Studies in Leadership (General School Administration and Special Education Emphases)
Counseling
School Psychology
Admission to Teacher Education

All students who wish to prepare to teach and to meet licensure requirements should obtain a Teacher Education Handbook from the Office of Teacher Education, 110 Hughes Hall. This handbook guides students in the necessary admission requirements to teacher education and the professional semester. The application for admission to teacher education should be made during the first semester of the sophomore year, or in the case of community college transfers, early in the first semester of attendance at PSU. A student must file an application for admission to teacher education before he/she can receive credit for pre-professional laboratory experiences counting toward a BSE degree at Pittsburg State University. Application forms for admission to teacher education may be obtained from the Office of Teacher Education, 110 Hughes Hall.

Requirements For Admission For Early Childhood/Late Childhood K-6 Majors and Early Childhood Unified (ECU) Birth Through Third Grade Licensure

1. Complete the Admission Application.

2. Be recommended for Teacher Education by advisor and three college instructors.

3. Meet a Basic Skills Requirement:
   a. PPST: Reading = 173, Writing = 172, Mathematics = 172,
   b. A composite score of 24 or higher on the ACT,
   c. College-Base scores: Reading, Writing and Mathematics = 235 or higher on each section,
   d. A score of 1730 or greater on the SAT.

4. Complete EDUC 261 Explorations in Education with a minimum grade of “C” and a positive recommendation for continuance from the cooperating school-based teacher.

5. Complete UGS 101 Transitions (for students transferring credit for EDUC 261).

6. Earn a “C” or better in ENGL 101 English Composition, ENGL 299 Introduction to Research Writing, COMM 207 Speech Communication, and three credit hours of mathematics numbered MATH 110 or higher.

7. Cumulative grade point average of 2.50.


9. Complete initial electronic portfolio requirements.

Requirements for Admission For Secondary/PK-12 Education Majors

1. Complete the Admission Application.

2. Be recommended for Teacher Education by advisor and three college instructors.

3. Meet a Basic Skills Requirement:
   a. PPST: Reading = 173, Writing = 172, Mathematics = 172,
   b. A composite score of 24 or higher on the ACT,
   c. College-Base scores: Reading, Writing and Mathematics = 235 or higher on each section,
   d. A score of 1730 or greater on the SAT.

4. Complete EDUC 261 Explorations in Education with a minimum grade of “C” and a positive recommendation for continuance from the cooperating school-based teacher.

5. Complete UGS 101 Transitions (for students transferring credit for EDUC 261).

6. Earn a “C” or better in ENGL 101 English Composition, ENGL 299 Introduction to Research Writing, COMM 207 Speech Communication, and three credit hours of mathematics numbered MATH 110 or higher.

7. Cumulative GPA of 2.80.


9. Complete initial electronic portfolio requirements.

Before applying for admission to teacher education, the student and advisor should prepare a tentative plan of the full scope of the student’s remaining program. The plan should ensure that all courses and requirements for admission to teacher education are met prior to the final year of study. Otherwise the student cannot enroll in restricted courses.
Students must be admitted to teacher education before they can enroll in the following courses:

**Early Childhood/Late Childhood (K-6)**

- EDUC 361 Elementary School Mathematics (3 hours)
- EDUC 363 Elementary School Social Studies (3 hours)
- EDUC 367 Intermediate Reading and Language Arts with Practicum (4 hours)
- EDUC 368 Effective Classroom Management (2 hours)

**Early Childhood Unified (ECU) Birth through Third Grade**

- EDUC 361 Elementary School Mathematics (3 hours)
- EDUC 366 Primary Reading and Language Arts with Practicum (4 hours)
- PSYCH 357 Educational Psychology (3 hours)
- SPED 550 Methods, Primary Children with Disabilities (2 hours)

**Secondary/K-12 Majors**

- (____) 479 Techniques for Teaching (____) (3 hours)
- EDUC 520 Methods and Materials for Academic Literacy (3 hours)
- PSYCH 357 Educational Psychology (3 hours)

Teacher candidates must be admitted to teacher education prior to application for the professional semester.

At least six hours of resident credit at Pittsburg State University must have been completed before admission to the professional semester.

**Basic Skills Requirement**

Admission to the Teacher Education Program at Pittsburg State University requires successful completion of a Basic Skills requirement. Students who receive a 24 or higher on the ACT or a score of 1730 or greater on the SAT have fulfilled this obligation. Others will need to choose between the Pre-Professional Skills Test (PPST) and the College Base Test. The PPST assessments measure competency in reading, writing, and mathematics skills. The PPST required scores are:

<table>
<thead>
<tr>
<th>Required Component</th>
<th>Required Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>173</td>
</tr>
<tr>
<td>Writing</td>
<td>172</td>
</tr>
<tr>
<td>Mathematics</td>
<td>172</td>
</tr>
</tbody>
</table>

*College BASE* assesses knowledge and skills in Reading, Writing and Mathematics.

<table>
<thead>
<tr>
<th>Required Component</th>
<th>Required Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>235</td>
</tr>
<tr>
<td>Writing</td>
<td>235</td>
</tr>
<tr>
<td>Mathematics</td>
<td>235</td>
</tr>
</tbody>
</table>

Registration information can be obtained from the Teacher Education Office, 110 Hughes Hall, or the Testing Center, 206B Whitesitt Hall.

Note: For early childhood/late childhood (K-6) majors, enrollment in courses with the EDUC prefix will not be allowed, with the exception of EDUC 261 Explorations in Education, until the Basic Skills requirement has been met.

**Scholastic Achievement in Common Core**

For admission to teacher education, the Early Childhood/Late Childhood (K-6) teacher candidate must have a minimum cumulative grade point average of 2.80 on a common core of general education courses underlined below.

**General Education Curriculum for Early Childhood/Late Childhood (K-6)**

**33-36 total hours - Required GPA 2.80**

Basic Skills (15 hours)

- COMM 207 Speech Communication* (3 hours)
- ENGL 101 English Composition* (3 hours)
ENGL 190 Honors English Composition* or
ENGL 299 Introduction to Research Writing* (3 hours)

MATH 204 Mathematics for Education I* (3 hours)
MATH 304 Mathematics for Education II (3 hours)

*Must have a “C” or better in each of these Basic Skills courses.

General Education Electives (39-41 hours)

**The higher course grade of SOC 100 or POLS 101 will be used in calculating the 2.75 content core GPA.

Producing and Consuming (6 hours)

Economy (Select One) (3 hours)

ECON 191 Issues in Today’s Economy (3 hours)
FCS 230 Consumer Education and Personal Finance (3 hours)

Technology (3 hours)

EDTH 330 Technology for the Classroom (3 hours)

Fine Arts and Aesthetic Studies (3 hours)

ART 311 Art Education (3 hours)

Cultural Studies (Select one) (3 hours)

GEOG 106 World Regional Geography (3 hours)
GEOG 300 Elements of Geography (3 hours)

Health and Well Being (4-6 hours)

Psychological

PSYCH 155 General Psychology (3 hours)

Physical (Select one)

FCS 203 Nutrition and Health (3 hours)
FCS 301 Nutrition (3 hours)
HHP 150 Lifetime Fitness Concepts (1 hour)
NURS 303 Introduction to Public Health (3 hours)

Human Heritage (6 hours)

History (Select One)

HIST 101 World History to 1500 (3 hours)
HIST 102 World History from 1500 (3 hours)
HIST 201 American History to 1865 (3 hours)
HIST 202 American History from 1865 (3 hours)
Literature (Select One)
ENGL 113 General Literature (3 hours)
ENGL 114 General Literature (Genre) (3 hours)
ENGL 116 General Literature (Theme) (3 hours)

**TOTAL (54-56 hours)**

For admission to teacher education, the Early Childhood Unified (ECU) Birth Through Third Grade Licensure must have a minimum cumulative grade point average of 2.80 on a common core of general education courses underlined below.

**General Education Curriculum for Early Childhood Unified (ECU) Birth Through Third Grade Licensure**

**33-36 total hours - Required GPA 2.80**

**Basic Skills (15 hours)**

COMM 207 Speech Communication* (3 hours)
ENGL 101 English Composition* (3 hours)
ENGL 190 Honors English Composition* or
ENGL 299 Introduction to Research Writing* (3 hours)

MATH 204 Mathematics for Education I* (3 hours)
MATH 304 Mathematics for Education II (3 hours)

*Must have a “C” or better in each of these Basic Skills courses.

**General Education Electives (38-41 hours)**

**Sciences (11 hours)**

*Natural Sciences*

BIOL 113 Environmental Life Science (4 hours)

BIOL 114 Environmental Life Science Laboratory for Teachers (1 hour)

or

BIOL 111 General Biology (3 hours)

**Physical Sciences (Select one)**

PHYS 171 and 172 Physical Science and Laboratory (4 hours)

CHEM 105 and 106 Introductory Chemistry and Laboratory (4 hours)

AND

PHYS 114 Physical Science Laboratory for Teachers (2 hours)

(PHYS 171/172 or CHEM 105/106 are prerequisites for PHYS 114)

**Social Studies ** (3 hours)

SOC 100 Introduction to Sociology (3 hours)

**Political Studies** (3 hours)

POLS 101 U.S. Politics (3 hours)

**The higher course grade of SOC 100 or POLS 101 will be used in calculating the 2.75 content core GPA.**

**Producing and Consuming (6 hours)**

*Economy (Select One) (3 hours)*

ECON 191 Issues in Today’s Economy (3 hours)

FCS 230 Consumer Education and Personal Finance (3 hours)

**Technology (3 hours)**

EDTH 330 Technology for the Classroom (3 hours)

**Fine Arts and Aesthetic Studies (2-3 hours)**

Any Fine Arts course listed for the general education requirements (2-3 hours)

**Cultural Studies** (Select one) (3 hours)

GEOG 106 World Regional Geography (3 hours)

GEOG 300 Elements of Geography (3 hours)
Health and Well Being (4-6 hours)

Psychological

PSYCH 155 General Psychology (3 hours)

Physical (Select one)

FCS 203 Nutrition and Health (3 hours)
FCS 301 Nutrition (3 hours)
HHP 150 Lifetime Fitness Concepts (1 hours)
NURS 303 Introduction to Public Health (3 hours)

Human Heritage (6 hours)

History (Select One)

HIST 101 World History to 1500 (3 hours)
HIST 102 World History from 1500 (3 hours)
HIST 201 American History to 1865 (3 hours)
HIST 202 American History from 1865 (3 hours)

Literature (Select One)

ENGL 113 General Literature (3 hours)
ENGL 114 General Literature (Genre) (3 hours)
ENGL 116 General Literature (Theme) (3 hours)

TOTAL (53-56 hours)

Secondary/K-12 Majors

Undergraduate students preparing to teach secondary or K-12 must meet University general education requirements and earn a minimum grade of “C” in ENGL 101, 190 or 299, COMM 207, and three credit hours of mathematics (College Algebra or above).

Courses meeting general education requirements may also satisfy major, minor, emphasis or program requirements.

Refer to curriculum guides in the department of your major for additional course requirements.

Basic Skills (12-13 hours)

COMM 207 Speech Communication* (3 hours)
ENGL 101 English Composition* (3 hours)
ENGL 190 Honors English Composition* or
ENGL 299 Introduction to Research Writing* (3 hours)

Mathematics (Select one) (3-4 hours)

MATH 110 College Algebra with Review* (3 hours)
MATH 113 College Algebra* (3 hours)
MATH 126 Pre-Calculus* (4 hours)
MATH 133 Quantitative Reasoning* (3 hours)
MATH 143 Elementary Statistics* (3 hours)

*Must have a “C” or better in each of these Basic Skills courses.

General Education Electives (34-41 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)

BIOL 111 and 112 General Biology and Laboratory (5 hours)
BIOL 113 Environmental Life Science (4 hours)
BIOL 211 Principles of Biology I (4 hours)

Physical Sciences (Select one)

CHEM 105 and 106 Introductory Chemistry and Laboratory (4 hours)
CHEM 107 and 108 Chemistry for Life Sciences and Laboratory (4 hours)
PHYS 160 and 165 Physical Geology and Laboratory (4 hours)
PHYS 162 and 163 Physical Oceanography and Laboratory (4 hours)
PHYS 166 and 167 Meteorology and Laboratory (4 hours)
PHYS 171 and 172 Physical Science and Laboratory (4 hours)
PHYS 175 and 176 Descriptive Astronomy and Laboratory (4 hours)
PHYS 375 and 176 Solar System Astronomy and Laboratory (4 hours)

Social Studies (Select one) (3 hours)
SOC 100 Introduction to Sociology (3 hours)
WOMEN 200 Introduction to Women’s Studies (3 hours)

Political Studies (3 hours)
POLS 101 U.S. Politics (3 hours)

Producing and Consuming (Select one from two of the following three categories) (5-6 hours)

Economy
ECON 191 Issues in Today’s Economy (3 hours)
FCS 230 Consumer Education and Personal Finance (3 hours)

Technology
EET 247 Computer Programming for Electronic Systems (3 hours)
GT 190 Introduction to Technological Systems (2 hours)
GT 350 Technology and Civilization (3 hours)
EDTH 330 Technology for the Classroom (3 hours)
TE 551 Integrated Technology for Educators (3 hours)
TM 350 Societal Influence of Technology (3 hours)

Business
ACCTG 201 Financial Accounting (3 hours)
CIS 130 Computer Information Systems (3 hours)
MGMKT 101 Introduction to Business (3 hours)

Fine Arts and Aesthetic Studies (Select one) (2-3 hours)
ART 155 Printmaking and Paper Arts (3 hours)
ART 178 Introduction to the Visual Arts (3 hours)
ART 188 The Designed World (3 hours)
ART 217 Crafts I (3 hours)
ART 222 Jewelry Design I (3 hours)
ART 233 Drawing I (3 hours)
ART 244 Ceramics I (3 hours)
ART 266 Sculpture I (3 hours)
ART 277 Painting I (3 hours)
ART 288 Western Art History I (3 hours)
ART 289 Western Art History II (3 hours)
ART 311 Art Education (3 hours)
COMM 105 Performance Appreciation (3 hours)
COMM 205 Performance Studies (3 hours)
COMM 295 Theatre History (___) (3 hours)
ENGL 250 Introduction to Creative Writing (3 hours)
HHP 151 Dance Appreciation (3 hours)
MUSIC 120 Music Appreciation (Classical, Jazz, or World Music) (3 hours)
MUSIC 121 Introduction to Music Literature (2 hours)
MUSIC 321 History of Music (3 hours)

Cultural Studies (Select one) (3-5 hours)
MLL 114 Chinese Language and Culture I (5 hours)
MLL 124 French Language and Culture I (5 hours)
MLL 154 Spanish Language and Culture I (5 hours)
MLL 184 Russian Language and Culture I (5 hours)
MLL 194 Korean Language and Culture I (5 hours)
GEOG 106 World Regional Geography (3 hours)
GEOG 300 Elements of Geography (3 hours)
GEOG 304 Human Geography (3 hours)
WOMEN 399 Global Women’s Issues (3 hours)

**Health and Well Being (4-6 hours)**

*Psychological*

PSYCH 155 General Psychology (3 hours)

*Physical (Select one)*

FCS 203 Nutrition and Health (3 hours)
FCS 301 Nutrition (3 hours)
HHP 150 Lifetime Fitness Concepts (1 hour)
NURS 303 Introduction to Public Health (3 hours)

**Human Heritage** (Select one from two of the following three categories) (6 hours)

*History*

HIST 101 World History to 1500 (3 hours)
HIST 102 World History from 1500 (3 hours)
HIST 201 American History to 1865 (3 hours)
HIST 202 American History from 1865 (3 hours)

*Literature*

ENGL 113 General Literature (3 hours)
ENGL 114 General Literature (Genre) (3 hours)
ENGL 116 General Literature (Theme) (3 hours)
ENGL 315 Mythology (3 hours)
ENGL 320 Literature and Film (3 hours)

*Philosophy*

PHIL 103 Introduction to Philosophy (3 hours)
PHIL 105 Ethics (3 hours)
PHIL 111 Ethics: Applied Emphasis (___) (3 hours)
PHIL 112 Biomedical Ethics (3 hours)
PHIL 113 Business Ethics (3 hours)
PHIL 114 Environmental Ethics (3 hours)
PHIL 208 Logic and Critical Thinking (3 hours)
PHIL 231 World Religions (3 hours)

**TOTAL** (46-54 hours)

**Proficiency in English Usage**

The teacher candidate must complete ENGL 101 English Composition, ENGL 299 Introduction to Research Writing, or its equivalent, as well as COMM 207 Speech Communication or its equivalent, with a grade of “C” or higher.

**Physical Fitness**

The teacher candidate must meet the same requirements of physical condition as those pertaining to regularly employed school personnel.

This criterion is met by submitting a certification of health signed by a licensed physician on a form prescribed by the Kansas State Board of Health, which includes a statement that there is no evidence of a physical condition that would conflict with the health, safety, or welfare of pupils. Forms are distributed in professional education classes.

**Emotional Stability**

The office of the Associate Vice President for Campus Life and Auxiliary Services and the faculty advisor will be responsible for reporting any evidence of lack of emotional stability on the part of the applicants for admission to teacher education.

**Dispositions for Teaching**

The teacher candidate’s faculty advisor, EDUC 261 or UGS 101 instructor and two other instructors selected by the student will complete an evaluation sheet on which they provide information with reference to the student’s dispositions and other characteristics for teaching. In those cases where sufficient reservations
are indicated, the student’s application will be formally reviewed by the Committee on Admission To and Retention In Teacher Education (CARTE).

Field Experiences (on-site in PK-12 classrooms)

Laboratory experiences are required for all students preparing to teach. Such experiences normally begin in the sophomore year. To be approved for admission to teacher education, students must successfully complete the pre-professional laboratory experience.

Successful completion requires the successful completion of EDUC 261 Explorations in Education, with a letter grade of “C” or higher, and a positive recommendation for continuance from the cooperating school-based teacher.

Those enrolled in teacher preparation programs take EDUC 261 Explorations in Education during the first semester of the sophomore year. An application for admission to teacher education must be submitted prior to placement at a school site for the field experience requirement in EDUC 261 Explorations in Education.

EDUC 307 Clinical Experience is taken during the junior year. EDUC 307 Clinical Experience is required for students preparing to teach at the elementary level; some secondary education majors are also required to complete a second pre-lab experience.

EDUC 308 Specialized Clinical Experience provides additional field experiences for students who are focusing on learners with special needs or learners in early childhood or middle school programs.

Retention in Teacher Education

After a student has been admitted to teacher education, the student must continue to meet the criteria established in the several areas indicated above.

Upon conclusion of pre-professional laboratory experiences, the cooperating teacher prepares a formal evaluation and recommendation which is utilized in the review of files for admission to teacher education and the professional semester.

In the area of scholastic achievement, the specified requirements for admission to the professional semester must be met. The record of each student admitted to teacher education is reviewed with regularity.

Reviews assure the successful continued progress of each student toward the goal of recommendation for licensure to the Kansas State Department of Education.

Teacher Education Transfer Credit

Students currently enrolled at Pittsburg State University who wish to enroll in professional education courses at another institution for transfer back to Pittsburg State University must have written approval of the student's advisor, the department chair, and the Dean of the College of Education prior to registration for the courses. It is the student's responsibility to have the grades on these transfer credits reported to the Registrar's Office as soon as possible after the completion of the course(s).

Admission to Professional Semester

All students preparing to teach are required to successfully complete the professional semester.

Criteria for Admission to the Professional Semester

An applicant for the professional semester must meet the following criteria at the time of enrollment for the professional semester. Application for the professional semester must be made by February 15 for the fall semester and September 15 for the spring semester.

1. Admission to teacher education prior to application for the professional semester.

2. At least six hours of resident credit at PSU must have been completed before admission to the professional semester.

3. Successful completion of Multi-Cultural Experiences in:

   a. PSYCH 357 Educational Psychology
   b. SPED 510 Overview of Special Education or SPED 511 Overview of Special Education (Birth through 6th
Grade) (Secondary Education majors must choose SPED 510).

4. Signed Disclosure Statement

5. Approval from the Major Academic Department

Additional Professional Semester Admission
Requirement for Early Childhood/Late Childhood K-6 Majors

1. Successful completion of the following Academic Standards:

   a. Cumulative GPA = 2.80

   b. In-Major GPA = 3.00 with no grade below “C”

   c. Completion of ALL courses listed under the Education, Psychology, and Lab Experiences section (50 hours)

   d. Completion of a minimum of 100 credit hours

   e. A 2.00 GPA in each field of concentration - English, Speech and Literature; History and Social Science; and Science and Mathematics

   f. A grade of “C” or higher in PSYCH 263 Developmental Psychology and PSYCH 357 Educational Psychology

   g. Successful completion of EDUC 307 Clinical Experience

   h. Completion of MATH 304 Mathematics for Education II

2. Satisfactory completion of specific components of the electronic portfolio.

3. Successful completion of the following Praxis II exams:

   1. Principles of Learning and Teaching: K-6 (0622 or 5622)

   2. Elementary Education: Curriculum, Instruction and Assessment (0011 or 5011)

Additional Professional Semester Admission
Requirements for Early Childhood Unified (ECU) Majors

1. Successful completion of the following Academic Standards:

   a. Cumulative GPA = 2.80

   b. In-Major GPA = 3.00 with no grade below “C”

   c. Completion of ALL courses listed under the Education, Psychology and Lab Experiences section (62 hours)

   d. Completion of a minimum of 100 credit hours

   e. A grade of “C” or higher in PSYCH 263 Developmental Psychology and PSYCH 357 Educational Psychology

   f. Completion of MATH 304 Mathematics for Education II

2. Satisfactory completion of specific components of the electronic portfolio.

Additional Professional Semester Admission
Requirements for Secondary and PK-12 Majors

1. Successful completion of the following academic standards:

   a. Cumulative GPA = 2.50

   b. In-Major GPA = 2.75

   c. A minimum grade of “C” in PSYCH 263 Developmental Psychology

   d. A minimum grade of “B” in PSYCH 357 Educational Psychology

   e. A GPA of 3.00 in 15 hours of Professional Education courses with no grade below a “C” in the following:

      EDUC 261 Explorations in Education

      SPED 510 Overview of Special Education

      PSYCH 357 Educational Psychology* (minimum of “B”)

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EDUC 520 Methods and Materials for Academic Literacy*

( ) 479 Techniques for Teaching Middle and Secondary School*

f. Completion of a minimum of:

95 cumulative hours

30 hours in major

2. Satisfactory completion of specific components of the electronic portfolio.

*Must be admitted to Teacher Education.

For more specific information about the professional semester and procedures for enrolling in it, the student should consult the Director of Teacher Education in the Office of Teacher Education, Room 110, Hughes Hall.

Additional Requirements

The teacher candidate must complete a course relating to the teaching of the exceptional child. The courses offered at Pittsburg State University which meets this requirement are SPED 510 Overview of Special Education and SPED 511 Overview of Special Education (Birth through 6th Grade).

The Kansas State Department of Education requires all applicants for initial issuance of licensure to take and satisfactorily pass the Principles of Learning and Teaching Test (PLT) and a content test in each teaching area for which licensure is sought.

Information regarding testing dates on the Pittsburg State University campus is available in the Testing Center, Whitesitt Hall or 110 Hughes Hall.

RECOMMENDATION FOR A KANSAS LICENSE TO TEACH

All licenses to teach in Kansas are issued by the Kansas State Department of Education.

Each application for an initial license, or for additional subject matter licensure, must be supported by (1) an official transcript of all college work completed, and (2) the recommendation of the Licensing Officer. It is the policy of Pittsburg State University that every applicant recommended to the Kansas State Board of Education, or to the State Department of Education of other states, for initial licensure, has complied with the policies and regulations of this university for admission to and retention in teacher education, has completed a teaching program, and has met the general and professional educational requirements for teacher licensure. The recommendation will reflect the confidence of university authorities (i.e., Dean of the College of Education and Director of Teacher Education) in the professional promise of the applicant. It is not based solely on the fact that the applicant has completed a specified program or sequence of courses. The Registrar shall certify to the Licensing Officer that the applicant has complied with requirements for the teaching major.

The application for Kansas licensure is submitted in the following manner:

1. Obtain the web address for online application from the Office of Teacher Education, 110 Hughes Hall or at the student teacher licensure seminar held at the end of each semester.

2. Order a transcript from the Registrar’s Office, Room 103, Russ Hall, verifying completion of program requirements and degree to be submitted to Teacher Licensing, 110 Hughes Hall.

3. Complete the online application and submit to Pittsburg State University.

4. Remit payment to the Kansas State Department of Education upon notification.

Further information relative to requirements for licensure and renewal may be obtained from the Licensing Officer, 110 Hughes Hall.

Title II Disclosure Concerning Teacher Education Graduates

The United States Department of Education requires that teacher education programs report on the success of the teacher education graduates as measured by pass rates on licensure tests. The pass rates for Pittsburg State University graduates on standardized
licensure tests for years 2008-2011 are listed below. To receive additional information regarding the Title II report, contact the Director of Teacher Education, 110 Hughes Hall.

The following lists the number of program completers per year, the pass rate for the Principles of Learning and Teaching (PLT) and the Praxis II content area tests:

<table>
<thead>
<tr>
<th>Year</th>
<th># Completers</th>
<th>% Pass</th>
<th>% Pass Content Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>244</td>
<td>95%</td>
<td>94%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>185</td>
<td>95%</td>
<td>94%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>242</td>
<td>92%</td>
<td>88%</td>
</tr>
</tbody>
</table>

**SPECIAL UNITS AND SERVICE FACILITIES**

**Interactive Distance Learning Classroom**

The College of Education houses a fully functioning interactive distance learning (IDL) classroom. The classroom, Room 315, Hughes Hall, contains the latest in distance learning technologies.

While the IDL classroom serves the entire University, the College of Education has been active in using IDL to deliver classes, conduct inservices, and hold statewide and regional meetings via this technology. The IDL is an essential component in the delivery of entire degree programs.

The system provides for full motion two-way audio and video connections for up to four locations. A computer system has been integrated into the system, providing an avenue for delivering computer mediated instruction to the distance sites. An important benefit of the computer is access for IDL instructors to full World Wide Web resources and the ability to display these resources to all connected sites. In addition, the configuration of the IDL classroom allows it to be used locally as a mediated classroom. This enables undergraduate and graduate students majoring in education to be exposed to the very latest in instructional delivery systems.

**Pittsburg State University Internship**

The Pittsburg State University Internship is an optional program for both Early Childhood Unified (Birth through 3rd Grade) and the Early Childhood/Late Childhood (K-6) majors that enables senior level students to participate in a semester long internship prior to the professional semester. Partnerships have been established with local schools to provide placements and support for teacher interns. In order to participate, the teacher intern must be admitted to Teacher Education and complete an application requesting permission to serve as an intern. During the internship, the teacher intern is allowed to enroll in one course in addition to the restricted course work for their declared major.

Mentor teachers must be recommended for participation in the partnership by their building level principal. During the internship semester, participants work eight (8) to ten (10) clock hours per week in a classroom with their mentor teacher in addition to completing required coursework on campus. Additionally, faculty from Pittsburg State University supervise the interns and work with the mentor teachers. The interns then have the opportunity to conclude their teacher education program with a sixteen-week student teaching experience in the same classroom during the fall or spring semester.

The mission of the partnership between Pittsburg State University and the PK-12 schools is to:

- Continue to improve the quality of education for area PK-12 students by utilizing research-based techniques and teaching strategies;
- Provide pre-service teachers with an authentic experience which effectively utilizes unique elements of a diverse student population and experienced professional staff in area schools;
- Stimulate and encourage the participating PK-12 schools and PSU faculties to develop professionally through continuous collaboration and interaction so that the community of life long learners is better prepared to live and work in an ever-changing society.
Instructional Resource Center (IRC)

The Instructional Resource Center (IRC) located in B25 Hughes Hall serves as a major instructional resource in all areas of teacher and school service personnel preparation. While its primary use has been by prospective teachers, it is designed to serve experienced teachers and administrators in school systems in the service area of Pittsburg State University.

The IRC occupies approximately 2200 square feet of floor space with facilities to accommodate substantial numbers of students in the main library area with conference, audio-visual, and individual work spaces provided. Services available for student's use include a photocopier, laminating machine, computers, and printers. A wide variety of instructional resource materials is available.

The primary purpose of the IRC is to provide experience with unit planning, selection, organization and effective use of multiple instructional resources, and to encourage curriculum development and improvement. The IRC has been added as a branch library to the university's on-line library catalog.

College of Education Computer Laboratory

The College of Education Computer Laboratory, located in B22 Hughes Hall, houses the computing services available to education majors at Pittsburg State University. The laboratory contains hardware and software representative of computing environments which exist in area schools. Through experiences in the laboratory, education majors acquire the skills and knowledge associated with educational technologies.

More than 24 of the most up-to-date computers are available in the lab in Windows platform. Word processing, spreadsheet, and data base software are accessible through all computer platforms. The Windows computers are connected to campus-wide networks which allow for the sharing of numerous and varied software products, including instructional software, statistics software, and drawing and painting packages. The networked computers also support research and communications by education majors by providing access to the World Wide Web.

Laboratories for Psychology and Counseling

Specialized laboratory areas in Whitesitt Hall are provided in support of the programs in psychology and counseling. Facilities include a diagnostic psychological assessment clinic, classroom-laboratory areas and counseling/therapy observation suites, complete with dual cameras and split screen video equipment for observation and recording.

Field Experiences

Field experiences for prospective and practicing teachers and other school service personnel are provided through cooperative arrangements with public schools and other educational or education-related agencies in the area.

Pre-student teaching experiences, student teaching, practicum experience, and internships are included.

Center for Economic Education

The Center for Economic Education is located in the Instruction Resource Center (IRC), Room B25 Hughes Hall. The center is a member of the Joint Council on Economic Education and is linked to 300 university-based centers. The mission of the PSU Center for Economic Education is to assume a leadership role in promoting economic literacy in the elementary and secondary schools of Southeast Kansas. To accomplish this mission, the center utilizes the following vehicles:

1. Teacher Education

The center provides both on-campus and off-campus in-service experiences for classroom teachers and administrators. These activities normally involve academic credit. Individualized seminars are developed around the specific needs of a school district or a consortium.

2. Materials Dissemination

The center provides instructional materials to teachers wishing to integrate economics into their instructional units. Nationally and state developed materials are loaned to teachers at no cost.

3. Research
The effectiveness of innovative economics instruction can be determined by the center staff. This research can take the form of a needs assessment or a complete curricula evaluation. The user fee is deposited into the center account and is utilized to purchase additional materials for teacher use.

**MASTER OF ARTS DEGREE**

The Master of Arts in Teaching is a program for individuals holding a non-teaching BA or BS degree in a content area and who are seeking licensure to teach in a 6-12 or PK-12 school setting. The purpose of the program is to train teachers for positions in high need content areas in both urban and rural schools. For specific admission and degree requirements, please see [Graduate Degrees and Options](#).

**MASTER OF SCIENCE DEGREE**

**Admission**

The minimum admission requirements for master’s degree curricula offered in the College of Education may be obtained from the respective departments, the College, or from the Dean of Graduate and Continuing Studies. (See, also, general requirements for Admission to Study for the master's degree listed elsewhere in this catalog.)

**Options**

Option I of the Master of Science degree requires satisfactory completion of a minimum of 30 semester hours, including thesis credit of three to six semester hours. Of the 30 hours, no fewer than 15 should be in courses numbered 800 to 899, including 890 and 891, and 24 must be in courses numbered 700 to 899. Students with strong academic records who plan to do advanced work beyond the master’s degree are particularly encouraged to follow this option.

Option II of the Master of Science degree may be elected by the student upon the recommendation of the major advisor. This option requires satisfactory completion of a minimum of 32 semester hours of approved course work. Of these, no fewer than 16 semester hours should be in courses numbered 800 to 899, including Methods of Research 891, and no fewer than 26 should be in courses numbered 700 to 899.

Option III of the Master of Science degree may be elected in special cases by the student upon recommendation of the advisor and approval of the department chairperson. This option requires completion of at least six semester hours in graduate research seminars with an average grade of "B" and satisfactory completion of a minimum of 32 semester hours of approved course work. Of these no fewer than 15 semester hours should be in courses numbered 800 to 899, and no fewer than 26 should be in courses numbered 700 to 899.

**Comprehensive Examinations/Special Project**

Candidates for a graduate degree in fall or spring semester must satisfactorily pass a comprehensive examination or a special project in the field of their major graduate work not later than four weeks prior to the date on which the degree is to be conferred. For summer term candidates, the examination or special project must be passed not later than two weeks prior to the degree conference date. The examination may be either oral or written or both. The format is at the discretion of the department which prepares, administers, and evaluates the examination/special project. Registration for the comprehensive examination must be completed in the department office of your major at least two weeks prior to the examination.

**Advisement**

Each graduate student is assigned to an advisor at the time of admission to graduate study. It is essential that the student plan tentatively the entire program in consultation with the advisor and that the advisor be consulted prior to each enrollment. Specific curriculum designs, incorporating the common requirements as well as required and recommended courses for a particular curriculum, are available from the chairperson of the department or the advisor.

**Education Programs**

The applicant for admission to study for the Master of Science degree with a major in teaching must present

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evidence of successful completion of a minimum of 18 semester hours of undergraduate credit in education and psychology, distributed so as to furnish an adequate background for the work proposed in the graduate level. For admission to a major at the master's degree level in elementary teaching, secondary teaching, school counseling, special education, library media, or elementary and secondary school administration and supervision, an applicant must hold or be eligible for a standard teaching license. Special exception to the requirement for licensure may be made for candidates preparing for employment in higher education or other agencies.

Candidates for the degree must complete a minimum of 15 semester hours in education and psychology. The course in Methods of Research 891 should be taken early in the graduate program, preferably in the first enrollment. This course is required both under Option I and Option II. It may be required under Option III.

*Special requirements.* Candidates preparing for work in special professional fields should select their courses under the guidance of the advisor with a view to meeting licensure requirements.

**Health, Human Performance, and Recreation**

The application for admission to study for the Master of Science degree with a major in health, human performance and recreation must present evidence of successful completion of a minimum of 20 semester hours of acceptable undergraduate foundation credit and a grade point average of 2.70 from an appropriate field. These credit hours should be so distributed to furnish an adequate background for the work required in the graduate major.

Candidates for the degree must complete a minimum of 32 hours, which includes core and emphasis hours, for either Option I: Research and Thesis or Option II: Coursework. A minimum of 27 semester hours must be completed within the Department of Health, Human Performance, and Recreation (see departmental section for listing of specific courses required.)

**Psychology and Counseling**

The applicant for admission to study for the Master of Science degree with a major in psychology or counseling must present evidence of successful completion of a minimum of 20 semester hours of undergraduate credit in psychology and closely related subjects distributed so as to furnish an adequate background for the work proposed on the graduate level.

Candidates for the degree must complete a minimum of 32 semester hours in psychology at the graduate level.

The General Aptitude Test of the Graduate Record Examination is required for admission to the programs (see department section for specific admission requirements).

**SPECIALIST IN EDUCATION DEGREE**

The program leading to the Specialist in Education (Ed.S.) degree is a professional program in education requiring two years of intensive work in specialized graduate study beyond the master's degree. Although the degree is normally earned in the area of the individual's master's degree, the experience, background and professional aims of the candidate for admission may indicate modifications of this general plan.

The student's program is formulated on the basis of requirements common to all Specialist in Education degree curricula in the college and course work selected through advisement appropriate to the student's background and to the particular specialization.

Option I of the Specialist in Education degree requires satisfactory completion of a minimum of 30 semester hours including an Ed.S. Thesis (Special Research Project 990).

Option II of the Specialist in Education degree requires completion of a minimum of 32 semester hours, including TCHL 930 Seminar in Research Skills (or other approved 900 level research course).
Admission

The applicant for admission to study for the Specialist in Education degree must present evidence of successful completion of a master's degree in the area in which specialization is proposed or in a closely related area. The applicant who lacks required specific background in the proposed area of specialization must complete satisfactorily not less than 10 graduate hours in such study before beginning the specialist degree program. A significant practicum experience shall be completed prior to completion of the degree. (See, also, Requirements for Admission to Study and Requirements for the Degree under the Specialist in Education Degree in the general requirements section of this catalog.)

Comprehensive Examination/Special Project

Candidates must satisfactorily pass a comprehensive examination or special project in the field of their graduate major not later than four weeks before the date on which the degree is to be conferred. The examination may be either oral or written or both. The major department shall prepare and give the examination over the formal and informal study required for the degree. The department will then certify on the Petition for the Degree to the Office of Graduate and Continuing Studies that the student has satisfactorily passed the examination or special project. Registration for the comprehensive examination must be completed in the department office of your major at least two weeks prior to the examination.

Advisement

Each applicant, admitted to graduate study for the Specialist in Education degree, is assigned to a major advisor. It is expected that those admitted to this program will be mature graduate students who are knowledgeable and responsible with respect to program and research requirements. The student should take the initiative, in consultation with the advisor, in planning the degree program and in meeting fully all requirements. Specific curriculum designs incorporating the common requirements, as well as required and recommended courses for a particular area, are available from the chairperson of the department or the advisor.
Health, Human Performance and Recreation

Chairperson: John H. Oppliger
Professor(s): Sandra L. Bauchmoyer*, Tom W. Bryant*, Dan Ferguson*, R. Scott Gorman*,**,***, Robert Hefley*, Charles Killingsworth*, John H. Oppliger*, Julia Spresser*, Bill Stobart*
Associate Professor(s): Janice Jewett*, Mike Leiker*
Assistant Professor(s): Mike Carper*, Laura Covert*
Instructors: Shelly Grimes

*Graduate Faculty
**University Professor
***Graduate Coordinator

Room 101 Student Recreation Center
Telephone: 620-235-4665
Fax: 620-235-4385
http://www.pittstate.edu/department/health/
E-mail: jopplige@pittstate.edu

Undergraduate
Bachelor of Science in Education Degree with a Major in Physical Education
Bachelor of Science Degree with a Major in Exercise Science
Bachelor of Science Degree with a Major in Recreation

Undergraduate Minors
Minor in Coaching
Minor in Exercise Science
Minor in Physical Education
Minor in Recreation
Second Teaching Option in Physical Education

Graduate
Master of Science Degree with a Major in Health, Human Performance and Recreation

Policy Statement
It is the belief of the Department of Health, Human Performance and Recreation that students preparing for careers in education, wellness and recreation fields possess both the academic qualifications and professional ethics necessary for success.

All students in the department are expected to maintain satisfactory ethical standards and adequate self-understanding. Student performance is monitored by means of semester grades and behavioral evidence of appropriate adjustment and professional conduct.

Evidence of unsatisfactory progress will result in the department informing the student and suggesting possible steps toward remediation. Unethical behavior is considered grounds for immediate dismissal from all departmental programs.

Advisement
All students are expected to understand the steps involved in completion of their chosen programs. Students are assigned a faculty advisor upon admission and should meet with their advisors prior to enrollment to insure that their personal curriculum plans are appropriate to career plans.

Degree programs offered by the department include the Bachelor of Science in Education with a Major in Physical Education, the Bachelor of Science with a Major in Recreation, and the Bachelor of Science with a Major in Exercise Science.

The Department of Health, Human Performance and Recreation offers minors in Coaching, Exercise Science, Physical Education and Recreation. Students selecting a minor must have both advisement and departmental approval.

Bachelor of Science in Education Degree with a Major in Physical Education
The Health, Human Performance and Recreation Department offers courses in the theory and practice of physical education for the preparation of teachers and athletic coaches. Students earning a major in physical education will complete courses in the theory and practice of physical education to be prepared to teach physical education pre-kindergarten through grade twelve. In addition to the core, students complete either an emphasis area or a minor. Emphasis areas...
include: Coaching; Group Fitness, Dance and Rhythms; and Strength and Conditioning. Students choosing to complete a minor must select one from a discipline appropriate to teacher preparation. Professional Education courses and admission to Teacher Education are required for all students. Students who have completed an Introduction to Education course at another institution of higher education MAY be eligible to have the course transferred to Pittsburg State University as an equivalent to the entry-level education course, EDUC 261 Explorations in Education. For full credit and to meet admission requirements for Teacher Education, students who transfer this course to Pittsburg State University must contact the Office of Teacher Education.

**General Education Requirements** (47-53 hours)

Basic Skills (12 hours)

General Education Electives (35-41 hours)

- Sciences** (9 hours)
- Social Studies (3 hours)
- Political Studies (3 hours)
- Producing and Consuming (5-6 hours)
- Fine Arts and Aesthetic Studies (2-3 hours)
- Cultural Studies (3-5 hours)
- Health and Well-Being (4-6 hours)
- Human Heritage (6 hours)

*See [General Education Requirements for Students Preparing to Teach Secondary School](#) for a list of specific courses. Also [Scholastic Achievement in Common Core](#) for admission to teacher education for secondary teaching majors.

**BIOL 111/112 General Biology and Laboratory required.

The following 40-41 hour core is the minimum for the major in physical education.

**Core (40-41 hours)**

- HHP 195: Introduction to Physical Education .................. 2

**Swimming (according to ability) select from (1-2 hours)**

- HHP 120: Swimming I ............................................. 1
- HHP 220: Lifeguarding ........................................... 2
- HHP 222: Water Safety Instructor .............................. 2
- BIOL 257: Anatomy and Physiology .......................... 3
- and BIOL 258: Anatomy and Physiology Laboratory ........ 2
- HHP 260: First Aid and CPR .................................... 2
- HHP 262: Care and Prevention of Athletic Injuries ........ 2
- HHP 341: Elementary School Physical Education and Health ......................................................... 3
- HHP 345: Measurement and Evaluation I .................... 2
- HHP 360: Theory and Fundamentals of Activities I ...... 2
- HHP 361: Theory and Fundamentals of Activities II ................................................................. 3
- HHP 362: Theory and Fundamentals of Activities III ................................................................. 2
- HHP 460: Kinesiology ............................................... 3
- HHP 462: Adapted Physical Education ......................... 2
- HHP 464: Physiology of Exercise ................................. 3
- HHP 466: Motor Development .................................... 3
- HHP 468: Principles of Administration in Health and Physical Education ..................................... 3
- HHP 479: Techniques for Teaching Physical Education ...................................................................... 3

Must be admitted to Teacher Education to enroll in HHP 479.

**Areas of Emphases**

Students must complete the core and either an emphasis or minor.

**Coaching Emphasis**

This emphasis prepares students to serve as athletic coaches in K-12 and college settings.

- HHP 320: Rules and Officiating ................................. 2
Coaching Theory Courses
Select three courses from the following

HHP 321: Coaching Softball and Baseball .................. 2
HHP 322: Coaching Track and Field ........................ 2
HHP 323: Coaching Football .................................. 2
HHP 324: Coaching Basketball ................................. 2
HHP 325: Coaching Volleyball ................................. 2
HHP 326: Coaching Swimming ................................. 2
HHP 340: Scientific Foundations of Coaching .............. 2
HHP 385: Practicum in Health and Human Performance ................................................................. 2

HHP 385 must be taken as Coaching (by advisement)

Group Fitness, Dance and Rhythms Emphasis
This emphasis prepares the physical education teacher to deliver rhythm and dance to students. Upon completion of the program, students are encouraged to take the Primary Group Exercise Certification Exam offered by the Aerobic and Fitness Association of America.

HHP 151: Dance Appreciation ................................. 3
HHP 200: Lifetime Sports: (___) .............................. 1-3
HHP 347: Elementary Games and Rhythms for K-6 ................. 2
HHP 349: Group Fitness Instruction ............................ 2
HHP 385: Practicum in Health and Human Performance ................................................................. 2
HHP 440: Topics in Health, Human Performance and Recreation (___) .................................. 1-3

HHP 151 Dance Appreciation will satisfy the general education Fine Arts and Aesthetic Studies area.

HHP 200 must be taken as a Dance Related course. Two hours maximum may be used.

HHP 385 must be taken as Group Fitness, Dance and Rhythms (by advisement).

HHP 440 must be taken as Dance Workshops. Two hours maximum may be used.

Strength and Conditioning Emphasis
This emphasis prepares students to serve as strength and conditioning specialists in private, education and athletic settings. Students completing the Strength and Conditioning emphasis will be encouraged to take the Certified Strength and Conditioning Specialist (CSCS) Exam offered by the National Strength and Conditioning Association.

HHP 101: Weight Training ...................................... 1
HHP 200: Lifetime Sports: (___) .............................. 1-3
HHP 385: Practicum in Health and Human Performance ................................................................. 2
HHP 440: Topics in Health, Human Performance and Recreation (___) .................................. 1-3
HHP 760: Technology and Instrumentation in Human Performance .................................................. 3
HHP 763: Scientific Principles of Strength and Conditioning ............................................................. 3

HHP 200 must be taken as Advanced Weight Training. Two hours are required.

HHP 385 must be taken as Strength and Conditioning and Program Design (by advisement).

HHP 440 must be taken as Nutrition Workshops/Professional Development (by advisement). Only 1 hour needed.

Admission to Teacher Education and Professional Semester
All students who wish to prepare to teach and to meet licensure requirements are required to apply for admission to Teacher Education during the second semester of the sophomore year, or in the case of community college transfers, early in the first semester of the junior year (students must have completed 30 hours before making application and have a 2.50 GPA).

Application for the professional semester must be made by February 15th for the fall semester; September 15th for the spring semester.
Professional Education*
EDUC 261: Explorations in Education ........................ 3
EDUC 307: Clinical Experience ................................. 1
EDUC 520: Methods and Materials for Academic Literacy ......................................................... 3
PSYCH 263: Developmental Psychology .................. 3
PSYCH 357: Educational Psychology ....................... 3
SPED 510: Overview of Special Education .................. 3
*See Admission to Professional Semester for professional education grade point requirements.

Must be admitted to Teacher Education to enroll in EDUC 520 and PSYCH 357.

Professional Semester
EDUC 458: Methods and Curriculum .......................... 3
EDUC 462: Secondary and Middle Level Education .......................................................... 2
EDUC 464: Foundations of Measurement and Evaluation ......................................................... 2
EDUC 475: Supervised Teaching in the Elementary School ....................................................... 3
EDUC 482: Supervised Teaching in the Secondary School ......................................................... 5
HHP 579: Supervised Student Teaching and Follow-Up of Teachers ....................................... 2

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

Bachelor of Science Degree with a Major in Exercise Science
Exercise Science is the study of movement and the associated functional responses and adaptations. Exercise scientists must understand the scientific basis underlying exercise-induced physiological responses. Students pursuing the degree of Bachelor of Science with a major in Exercise Science will complete courses in theory and practice of exercise testing and prescription. In addition to the core and recommended electives, students may choose a minor although one is not required. Suggested minors include Interdisciplinary Gerontology or Public Health. A minimum grade point average of 2.75 is required within the Exercise Science program.

General Education Requirements* (46-53 hours)

Basic Skills** (12 hours)

General Education Electives (34-41 hours)

Sciences*** (8-9 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming**** (5-6 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)

Human Heritage@ (6 hours)

*See General Education Requirements for All Baccalaureate Degrees for details and a list of specific courses.

**MATH 143 Elementary Statistics recommended.

***BIOL 111/112 General Biology with Laboratory and CHEM 105/106 Introductory Chemistry with Laboratory recommended.

****CIS 130 Computer Information Systems recommended.

@PHIL 105 Ethics or PHIL 111 Ethics: Applied Emphasis (Medical) required.

Core (46-52 hours)
BIOL 257: Anatomy and Physiology .......................... 3
and BIOL 258: Anatomy and Physiology Laboratory .......................................................... 2
FCS 203: Nutrition and Health ................................. 3
or FCS 301: Nutrition ............................................... 3
HHP 150: Lifetime Fitness Concepts ............................ 1
Suggested Minors

- Interdisciplinary Gerontology Minor (21 hours)
- Public Health Minor (21 hours)

Bachelor of Science Degree with a Major in Recreation

This curriculum satisfies requirements for a Bachelor of Science degree with a major in Recreation. In addition to the core, students must complete an emphasis area as well as a minor. Emphasis areas include: Recreation Administration, Therapeutic Recreation, and Community, Corporate and Hospital Wellness. A minimum 2.50 GPA is required in core and emphasis areas prior to enrolling in REC 498 Internship. A minimum GPA of 2.50 in all recreation core and emphasis courses is required in order to graduate.

General Education Requirements* (46-53 hours)

Basic Skills (12 hours)

General Education Electives (34-41 hours)

Sciences (8-9 hours)

Social Studies (3 hours)

Political Studies (3 hours)

Producing and Consuming (5-6 hours)

Fine Arts and Aesthetic Studies (2-3 hours)

Cultural Studies (3-5 hours)

Health and Well-Being (4-6 hours)

Human Heritage (6 hours)

*See General Education Requirements for All Baccalaureate Degrees for details and a list of specific courses.

The following 39 hour core is the minimum for the major in Recreation.

Exercise Science Electives (21 hours)

BIOL 211: Principles of Biology I .............................................. 4
BIOL 212: Principles of Biology II .............................................. 4
BIOL 322: Genetics .................................................................. 3
and BIOL 323: Genetics Laboratory ........................................ 2
BIOL 410: Biological and Medical Terminology ....................... 2
BIOL 660: Human Anatomy and Dissection ............................ 5
CHEM 215: General Chemistry I .............................................. 3
and CHEM 216: General Chemistry I Laboratory ................. 2
CHEM 225: General Chemistry II ............................................. 3
and CHEM 226: General Chemistry II Laboratory ............ 2
FCS 285: Lifespan Human Development ............................... 3
HHPR 763: Scientific Principles of Strength and Conditioning .............................................. 3
NURS 265: Health Promotion and Disease Prevention ........... 2
NURS 314: Health Care Terminology and Drug Calculations ...... 3

- Other approved electives* (0-11 hours)

*to meet minimum graduation requirements of 124 hours

Other required coursework

PHIL 105: Ethics .................................................................. 3
or PHIL 111: Ethics: Applied Emphasis (____) .................. 3
or PHIL 112: Biomedical Ethics .............................................. 3

PHILL 111 Ethics must be taken as Medical
Core (39 hours)

REC 160: Introduction to Recreation and Leisure ............. 3
REC 240: Introduction to Therapeutic Recreation ............. 3
HHP 260: First Aid and CPR ........................................... 2
REC 270: Field Study in Recreation Leisure and Fitness ............................................................... 2
or REC 275: Recreation Practicum ............................... 2
REC 280: Recreation Methods and Leadership ............. 3
REC 311: Recreation Program Design and Leadership ............................................................... 3
REC 317: Camping and Outdoor Education ............. 3
REC 320: Management Strategies and Financing in Recreation ............................................................... 3
REC 461: Professional Conference .................................. 1
REC 462: Pre-Internship Seminar .................................. 1
REC 470: Administration of Recreation ..................... 3
or REC 770: Administration of Recreation .................. 3
REC 498: Internship in Recreation ........................................ 12

Areas of Emphases

An emphasis must be completed in either Recreation Administration, Therapeutic Recreation or Community, Corporate and Hospital Wellness. A select minor relative to the emphasis area is required. ***

Recreation Administration Emphasis

The Recreation Administration emphasis provides students with the skills needed to serve leadership, supervisory, and management roles in city park and recreation capacities and other leisure service agencies. Upon completion of the program, students are encouraged to take the Certified Park and Recreation Professional (CPRP) Exam offered by the National Recreation and Park Association.

COMM 277: Introduction to Public Relations ................. 3
REC 419: Survey Research Techniques in Recreation ............................................................... 3
REC 430: Commercial Recreation ........................................ 3
REC 435: Design and Maintenance of Recreation/Leisure Facilities ............................................................... 3
REC 438: Issues in Recreation ........................................ 3
HRD 706: Personnel Development in Business and Industry ............................................................... 3
or PSYCH 575: Industrial and Organizational Psychology ............................................................... 3

***Recreation Administration Emphasis requires a minor in Business Administration, Marketing, or Natural History (21 hours).

HRD 706 to be taken during senior year.

Therapeutic Recreation Emphasis

This emphasis prepares students for supervisory and leadership positions in various private and community-based health care facilities delivering care to individuals with various disabilities. Students completing the Therapeutic Recreation emphasis qualifies them to sit for the National Council on Therapeutic Recreation Certification (NCTRC) Exam.

BIOL 257: Anatomy and Physiology ............................................ 3
and BIOL 258: Anatomy and Physiology Laboratory ............................................................... 2
PSYCH 263: Developmental Psychology .......................... 3
REC 419: Survey Research Techniques in Recreation ............................................................... 3
REC 460: Theory of Therapeutic Recreation Program and Service Development ............................................ 3
HHP 462: Adapted Physical Education ............................................ 2
REC 465: Assessment and Documentation in Therapeutic Recreation ............................................................... 3
REC 469: Intervention in Therapeutic Recreation ............. 3
REC 480: Professional Trends and Issues in Therapeutic Recreation Services ............................................................... 3
PSYCH 571: Abnormal Psychology ............................................ 3

***Therapeutic Recreation Emphasis requires a minor in Psychology, Interdisciplinary Gerontology, or Public Health (21 hours).

PSYCH 263 and PSYCH 571 can be counted toward Psychology Minor.
Community, Corporate and Hospital Wellness Emphasis
This emphasis prepares students for supervisory and leadership positions in the wellness field in community, corporate (private), and hospital-based settings. Students completing the emphasis will be encouraged to take the Certified Personal Trainer & Group Fitness Exams offered by ACE, NSCA, ACSM or a similar agency.

FCS 203: Nutrition and Health ........................................ 3
or FCS 301: Nutrition .............................................................. 3
BIOL 257: Anatomy and Physiology ........................................ 3
and BIOL 258: Anatomy and Physiology Laboratory ................................. 2
REC 425: Personal Training and Fitness Managements ........................................... 3
REC 430: Commercial Recreation .................................................. 3
HHP 460: Kinesiology ................................................................. 3
HHP 464: Physiology of Exercise .................................................... 3

***Community, Corporate and Hospital Wellness Emphasis requires a minor in Business Administration, Marketing, Public Health, or Exercise Science (21 hours).

FCS 203 Nutrition and Health will satisfy a portion of the general education Health and Well-Being area.

Minor in Coaching
The Coaching minor provides the coaching background for both educators and non-educators possessing an interest in athletic coaching. This minor also reflects the opportunities existing in the field of communications and sport. The curriculum provides the student with an understanding of sport specific terms, strategies and concepts as well as an introduction to the medical and administrative issues surrounding sport in today’s society.

Required Coursework (24 hours)
BIOL 257: Anatomy and Physiology ........................................... 3
and BIOL 258: Anatomy and Physiology Laboratory ................................. 2
HHP 260: First Aid and CPR ......................................................... 2
HHP 262: Care and Prevention of Athletic Injuries ........... 2
HHP 320: Rules and Officiating .................................................... 2
HHP 361: Theory and Fundamentals of Activities II ...................................................... 2
HHP 440: Topics in Health, Human Performance and Recreation (____) .......................... 1-3
HHP 460: Kinesiology ................................................................. 3

Select three courses from the following
HHP 321: Coaching Softball and Baseball ................................. 2
HHP 322: Coaching Track and Field ........................................... 2
HHP 323: Coaching Football .......................................................... 2
HHP 324: Coaching Basketball .................................................... 2
HHP 325: Coaching Volleyball ..................................................... 2
HHP 326: Coaching Swimming ...................................................... 2
HHP 440 must be taken as Workshops in Coaching and Conditioning (by advisement)

Minor in Exercise Science
The purpose of the Exercise Science minor is to have competent and dedicated professionals teach, research, and serve in the health and wellness field. This minor is designed to compliment a number of majors, including but not limited to, physical therapy, nursing, pre-medicine, physical education, and recreation. The exercise science minor is intended to provide depth into exercise functions and dysfunctions of a wide population as well as have the potential to lead students to graduate programs if desired.

Exercise Science
REC 441: Adult Health and Development .................................... 3
HHP 460: Kinesiology ................................................................. 3
HHP 464: Physiology of Exercise .................................................... 3
HHP 510: Physiology of Exercise II .................................................. 3
HHP 512: Exercise Testing and Prescription .................................... 3
HHP 514: Clinical Exercise Physiology .......................................... 3
HHPR 760: Technology and Instrumentation in Human Performance ........................................ 3
REC 441 or other approved elective (3 hours)
Minor in Physical Education
The Physical Education minor is available to students interested in the discipline. Additional coursework is required to gain licensure in K-12 Physical Education.

Physical Education
HHP 195: Introduction to Physical Education ............... 2

Swimming (according to ability) select from (1-2 hours)
HHP 120: Swimming I .................................................. 1
HHP 220: Lifeguarding ................................................... 2
HHP 222: Water Safety Instructor .................................. 2
BIOL 257: Anatomy and Physiology .............................. 3
and BIOL 258: Anatomy and Physiology Laboratory .............................................. 2
HHP 260: First Aid and CPR ........................................... 2
HHP 345: Measurement and Evaluation I ........................ 2
HHP 360: Theory and Fundamentals of Activities I ...... 2
HHP 361: Theory and Fundamentals of Activities II .............................................. 2
HHP 362: Theory and Fundamentals of Activities III ........................................... 2
HHP 460: Kinesiology ...................................................... 3
HHP 462: Adapted Physical Education .......................... 3
HHP 468: Principles of Administration in Health and Physical Education .............................................. 3
HHP 479: Techniques for Teaching Physical Education ........................................... 3

Must be admitted to Teacher Education to enroll in HHP 479.

Minor in Recreation
The Recreation minor provides the general recreation background suitable for students majoring in the disciplines of business and marketing and other related fields.

Recreation
REC 160: Introduction to Recreation and Leisure .......... 3
REC 240: Introduction to Therapeutic Recreation .......... 3

Electives- four hours chosen from
HHP 260: First Aid and CPR ........................................... 2
REC 275: Recreation Practicum ...................................... 2
REC 280: Recreation Methods and Leadership .............. 3
REC 419: Survey Research Techniques in Recreation ........................................... 3
REC 440: Topics in Health, Physical Education and Recreation (___) ........................................... 1-3

Second Teaching Option in Physical Education
Those persons interested in physical education as a second teaching option should complete the following course requirements:

Second Teaching Option
HHP 195: Introduction to Physical Education ............... 2

Swimming (according to ability) select from (1-2 hours)
HHP 120: Swimming I .................................................. 1
HHP 220: Lifeguarding ................................................... 2
HHP 222: Water Safety Instructor .................................. 2
BIOL 257: Anatomy and Physiology ........................................... 3
and BIOL 258: Anatomy and Physiology Laboratory ........................................... 2
HHP 260: First Aid and CPR ........................................... 2
HHP 262: Care and Prevention of Athletic Injuries .......... 2
HHP 341: Elementary School Physical Education and Health ........................................... 3
HHP 345: Measurement and Evaluation I ........................ 2
HHP 360: Theory and Fundamentals of Activities I ...... 2
HHP 361: Theory and Fundamentals of Activities II ........................................... 2
HHP 362: Theory and Fundamentals of Activities III ........................................... 2
HHP 460: Kinesiology ...................................................... 3
HHP 462: Adapted Physical Education .......................... 3
HHP 464: Physiology of Exercise ................................. 3
HHP 466: Motor Development ................................. 3
HHP 468: Principles of Administration in Health
and Physical Education ........................................... 3
HHP 479: Techniques for Teaching Physical
Education ......................................................... 3

Must be admitted to Teacher Education to enroll in HHP 479.

**Master of Science Degree with a Major in Health, Human Performance and Recreation**

The online Master of Science degree program is designed to prepare students for careers in the fields of sport, physical education, wellness and recreation. Candidates complete the required core of 15 (18 for thesis option) hours and one of three 12 hour curricular emphases offered within the degree and five hours of elective for a minimum of 32 hours. Candidates selecting either the Human Performance and Wellness or Sport and Leisure Service Management emphases must complete an internship. The degree program normally takes a minimum of two years to complete.

**Admission Requirements**

For work leading to the Master of Science degree with a major in Health, Human Performance and Recreation, a candidate must have a minimum undergraduate grade point average of 2.70, regardless of degree earned. A candidate holding a degree from another discipline must have a 2.70 grade point average in 20 semester hours of acceptable undergraduate credit from an appropriate Health, Human Performance and Recreation field. A grade point average of 3.00 must be attained within the first 12 hours of coursework to gain full admission. Additional requirements include:

- Department interview with either the Graduate Coordinator or Department chairperson
- A written statement of educational goals and objectives
- Two personal letters of reference
- Official transcripts

**Master of Science Degree Required Core (15 hours)**

HHPR 801: Methods of Assessment in Health
Human Performance and Recreation ........................... 3
HHPR 806: Special Investigations (___) .................. 1-3
HHPR 810: Foundations of Human Performance
and Wellness ......................................................... 3
or HHPR 820: Foundations of Recreation and
Leisure ................................................................. 3
HHPR 878: Social-Psychology of Sport and
Recreation .......................................................... 3
HHPR 891: Methods of Research ...................... 3

**Thesis Option**

HHPR 890: Research and Thesis ............................ 3-5
HHPR 890 is taken for 3-5 hours depending upon the topic and the recommendation of the advisor.

**Area of Emphasis**

In addition to core requirements, students must complete one area of emphasis

**Human Performance and Wellness Emphasis (12 hours)**

The Human Performance and Wellness emphasis prepares students possessing education, health, exercise science or similar degrees for careers in education, community and private settings. This emphasis includes 12 hours of required courses and five hours of electives.

HHPR 760: Technology and Instrumentation in
Human Performance ......................................... 3
HHPR 863: Biomechanics ................................. 3
HHPR 866: Advanced Exercise Physiology ................. 3
HHPR 895: Internship (___) ............................. 3

- Electives (5 hours)

HHPR 895 Internship must be taken in Human Performance and Wellness.
Sport and Leisure Service Management
Emphasis (12 hours)
The Sport and Leisure Service Management emphasis prepares students possessing recreation, education, business or similar degrees for management careers in sport, leisure, and education settings. This emphasis includes 12 hours of required courses and five hours of electives.

HHPR 823: Finance and Marketing in Sport and Leisure Services ..............................................................3
HHPR 825: Leadership and Legal Issues in Sport and Leisure Services ..........................................................3
HHPR 826: Sport and Leisure Facility Development and Operation .................................................................3
HHPR 895: Internship (____) ..........................................3

- Electives (5 hours)

HHPR 895 Internship must be taken in Sport and Leisure Service Management

General Emphasis (12 hours)
The General Emphasis provides students the opportunity to develop a broad background in Health, Human Performance and Recreation professions. This emphasis includes 12 hours of required courses and five hours of electives.

HHPR 823: Finance and Marketing in Sport and Leisure Services .................................................................3
HHPR 825: Leadership and Legal Issues in Sport and Leisure Services ..........................................................3
HHPR 863: Biomechanics .........................................................3
HHPR 866: Advanced Exercise Physiology .............................3

- Electives (5 hours)
Psychology and Counseling

Chairperson: David P. Hurford
Professor(s): Julie A. Allison*, Rebecca Brannock*, David P. Hurford*,**, C.O. Lindskog*,**, Conni Rush*, Janet V. Smith*, H. Rozanne Sparks*, Donald E. Ward*
Associate Professor(s): Steven Duvall*, Sean Lauderdale*, Gwendolyn Murdock*, C. Bruce Warner*, Jamie Wood*
Assistant Professor(s): Harriet Bachner*, Chris Spera*
Instructors: Tysha VanBecelaere*
Lecturer: Virginia McElwee

* Graduate Faculty
**University Professor

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Undergraduate
Bachelor of Arts Degree with a Major in Psychology
Bachelor of Science Degree with a Major in Psychology
Bachelor of Science in Education Degree with a Major in Psychology
Psychology as a Second Teaching Field
Minor in Psychology
Minor in Psychology for Justice Studies Majors
Minor in Substance Abuse Services

Graduate
Master of Science Degree with a Major in Psychology
(General and Clinical Psychology)
Master of Science Degree with a Major in Counseling
(School and Clinical Mental Health Counseling)
Specialist in Education Degree with a Major in Counseling
Specialist in Education Degree with a Major in School Psychology

Policy Statement

The Department of Psychology and Counseling believes that students and faculty share an ethical responsibility to assure that individuals preparing for careers in mental health services possess both the academic qualifications and level of personal adjustment necessary to function effectively as professional mental health service providers.

All students in the department are expected to maintain satisfactory ethical standards and adequate self-understanding. Student performance is monitored by the department by means of semester grades and behavioral evidence of appropriate adjustment and professional conduct. If satisfactory progress is not being made, the department will inform the student and suggest possible steps toward remediation (and specify criteria to regain good standing in the program) or offer assistance to the student in finding a field of study that is more suited to the student's interests and/or abilities. Unethical behavior is considered grounds for immediate dismissal from all training programs in the department.

Advisement

All students are assigned a faculty advisor upon admission. Advisors have a number of career-oriented curriculum plans showing required and suggested courses. Students are strongly encouraged to consult with their advisors at least once a semester (before enrollment) to ensure that their personal curriculum plans are appropriate to career plans.

UNDERGRADUATE DEGREE PROGRAMS

While careers involving the provision of direct mental health services have traditionally been the most common choices for those entering the field of psychology, many career choices and directions are available. Bachelor's degree holders in psychology now find job roles readily available in human resources, employee recruitment and selection, public relations, market research and advertising, program development, teaching, research, case management, substance abuse services, community relations, administration, and other human service areas. However, individuals who wish to have professional status and credentials as a psychologist or counselor must obtain a graduate degree.
The Department of Psychology and Counseling offers a full range of bachelor’s degree programs to prepare students in applied skills or for entry into graduate and professional level training. Students should work closely with their advisors to establish career goals and to select and plan programs that will allow them to effectively pursue graduate training or develop appropriate applied skills for entry into the world of work.

Undergraduate Admission Requirements

The following Bachelor of Science in Psychology options require completion of an application process and admission to the program/degree.

- Bachelor of Science in Psychology- Substance Abuse Services
- Bachelor of Science in Psychology- Case Management
- Minor in Substance Abuse Services

Applicants must have 60 hours complete and 3.0 GPA before applying. Admission to the above programs in the department requires that students submit the following

- Department Application and Non-Refundable Application Fee of $40.00 payable to Department of Psychology and Counseling: Once the student has been accepted, additional fees are required to cover the cost of criminal background checks. The student's acceptance status will be considered "conditional" until the fees have been paid and the criminal background check has been completed.

Costs:

- Domestic students with one last name-no additional fees.
- Domestic students who have more than one last name (maiden name, married names, nicknames or other names used)- $18.00 per last name
- International students- must pay the actual cost of the criminal background check for the student's specific country (see International Criminal History Pricing document for specific details)

- Consent for Release of Criminal Background Check
- Personal Statement of Career Goals (Describing background, professional/educational goals, and specific program area of interest at PSU)
- Three Completed Professional Recommendation Forms (At least one reference should be from a teacher or academic advisor who can speak on behalf of your academic performance. References from friends, relatives, neighbors, ministers, personal physicians, and personal counselors are not acceptable. References from employers, teachers, or academic advisors are preferred.)

Applications are accepted for Summer Admission only.
Deadline is March 1.

General Education Requirements

General Education Degree Requirements for the Bachelor of Arts Degree and the Bachelor of Science Degree total 46-54 hours and are distributed over nine areas. A specific listing of General Education Requirements for All Baccalaureate Degrees.

General Education Degree Requirements for the Bachelor of Science in Education Degree total 46-54 hours and are distributed over nine areas. A specific listing of General Education Requirements for Students Preparing to Teach Secondary School. Students preparing to teach secondary school should also see Scholastic Achievement in Common Core.

Department Assessment

All baccalaureate degree candidates in the department are required to complete the department assessment during their enrollment in PSYCH 665 Psychology as a Profession II.

GRADUATE DEGREE PROGRAMS

A student who wants a career as a professional psychologist or counselor should plan on graduate study. The Department of Psychology and Counseling offers the Master of Science degree with a major in either psychology or counseling and the Specialist in Education degree with a major in either counseling or school psychology.
The Master of Science degree with a major in psychology and the Master of Science degree with a major in counseling have been developed specifically to prepare students for a variety of careers in schools and other agencies offering psychological services. The EdS program in counseling is designed to prepare candidates for careers in the development, supervision and administration of counseling services, or as community mental health workers. The EdS program in school psychology is designed to prepare candidates for careers as school psychologists.

Graduate Admission Requirements

Admission to graduate study in the department is competitive and requires that students submit the following:

- Graduate and Continuing Studies Application for Admission to Graduate Study and non-refundable application fee of $35.00 for domestic students or $60.00 for international students
- Department Application and non-refundable application fee of $40.00 (this is in addition to the Graduate and Continuing Studies application fee) payable to Department of Psychology and Counseling:

Once the student has been accepted, additional fees are required to cover the cost of criminal background checks. The student’s acceptance status will be considered “conditional” until the fees have been paid and the criminal background check has been completed.

Costs:

- Domestic students with one last name – no additional fees.
- Domestic students who have more than one last name (maiden name, married names, nicknames or other names used) - $18.00 per surname.
- International students – must pay the actual cost of the criminal background check for the student’s specific country (see International Criminal History Pricing document for specific details)
- Consent for Release of Criminal Background Check
- Personal Statement of Career Goals
- Graduate Record Examination (GRE) Scores (General Test Only) – A minimum score of 141 on the Quantitative Reasoning area, a minimum score of 146 on the Verbal Reasoning area, and 3.50 or above on the Analytical Writing area
- Three completed Professional Recommendation Forms
- All official degree statement transcripts
- A minimum TOEFL score of 550/79 for students whose primary language is not English
- Cumulative undergraduate GPA of 3.00

All application materials must be received before applications will be considered. Incomplete application files will not be considered. It is the responsibility of the applicant to monitor file completion.

One can matriculate into the programs at three different times: Fall, Spring, or Summer. Application deadlines are: Summer or Fall Admission, March 1; and Spring Admission, October 1. Late application deadlines are November 15 for Spring admission and May 1 for Summer or Fall admission. Late applications will only be considered if space is still available in the program. A non-refundable late application fee of $25.00 payable to the Department of Psychology and Counseling is required. Applications for MS in Clinical Psychology are normally accepted for Fall admission. Applications will be considered for Spring admission, but please note that this will extend the student’s program of study by one semester. Normally applications that remain inactive for more than 30 days or that are incomplete after the next application deadline are considered no longer active and will be denied.

Most graduate students in the Department are at some point involved in providing direct mental health services as part of their practicum and internship experiences. As a result, the Department has a policy that requires all applicants consent to criminal background checks with Validity Screening Solutions regarding the applicant’s history of convictions for crimes involving violence or exploitation of others. Failure to sign the form for Consent for Release of Criminal Background Check will result in the immediate denial of the application.
Applicants for admission to all MS degree programs must present evidence of completion of at least 21 hours in psychology and closely related subjects distributed so as to furnish an appropriate background for the work proposed on the graduate level. Background courses may be assigned to students who have fewer than 21 hours of specified prerequisite course work in psychology and/or a GPA below 3.00 or GRE scores below 146 on the verbal area, 141 on the quantitative area and 3.50 on the analytical writing area (and who can be admitted conditionally).

Degree Requirements

In addition to completing the prescribed curricula for the degree program emphasis and option, each student is required to submit a program (plan) of studies for admission to candidacy and to pass a written comprehensive examination.

Program of Studies

Graduate students should prepare a written plan of studies in consultation with the major advisor after completing at least 12 hours of graduate course work and removing all admission deficiencies. This plan should be submitted through the advisor to the department for approval before the student's final 12 hours of coursework in the graduate program.

Graduate Student Retention

Students must maintain a GPA of 3.00 or higher throughout the program. In applying for degree candidacy, the student shall have no grade lower than "B" in the core courses for that program. Deficiencies in grades, professional behavior, or adjustment may lead to dismissal from the program. A graduate student in the Department who receives more than two grades below "B" in graduate coursework will be dismissed from the program. Students dismissed may reapply for admission and may be considered for readmission through the regular graduate admission process.

In order to assure that all students demonstrate openness to self-examination and professional self-development as well as the ability to develop and maintain good interpersonal relationships in individual and group contexts that characterize the level of personal functioning necessary for effective professional practice, faculty members will systematically monitor these factors throughout each student's program. In addition to frequent feedback from faculty and students concerning academic performance, self-understanding, and interpersonal effectiveness, faculty members conduct the following regular assessments:

1. Combined application information including letters of recommendation, personal statements, interviews, and other data will be used to select students for admission who are likely to demonstrate effective personal functioning as well as to develop high levels of professional commitment and skilled practice.

2. Each semester, the Counseling Committee will review the progress of each clinical mental health counseling major in the three areas of effective personal functioning, professional commitment, and skilled practice. If inadequate performance is found in any area, the students will be informed by their faculty advisors of the specific areas and of recommended remediation steps to be completed to regain good standing.

3. During the semester before practicum enrollment, the same three areas will be assessed by the faculty advisor and the faculty practicum review committee. By this point in addition to maintaining at least a "B" grade average in all graduate course work and "A" or "B" grades in all practicum/internship prerequisite courses for the relevant program concentration, students must demonstrate sufficient self-understanding and ability to establish effective personal relationships necessary to engage in supervised practice. If there are limitations in these areas, the practicum application will not be approved for the next semester, and the student will be informed by letter of the steps required for remediation before reapplication in a subsequent semester. The student is also directed to work closely with his/her faculty advisor in the remediation plan.

4. In addition to using academic performance and behavioral evaluation to assess the student's professional development and skilled practice, self development and the ability to establish good
interpersonal relationships in both individual and group contexts are monitored and evaluated during each fieldwork semester. If the students’ performance in these areas is judged to be insufficient by the faculty instructor in consultation with the site supervisor, the student will not be allowed to enroll in fieldwork until remediation is completed and personal and interpersonal effectiveness demonstrated. If, at any of these points, the Counseling Committee judges that the students’ personal, interpersonal, ethical, professional, and/or academic performance, despite remediation, is not sufficient to continue in the program, the student will be informed of the decision and offered the opportunity to discuss alternative academic and/or career plans with their advisor. Students may grieve such decisions beginning with a written statement for the Counseling Committee to reconsider, and then following the regular grievance procedure steps described in the Pittsburg State University Catalog.

Consistent with the philosophy of the Pittsburg State University MS in Psychology and Counseling program, a recommendation for student discontinuance in the program is not perceived by faculty as reflecting personal inadequacy. Rather, we view such situations as generally resulting from a mismatch of student interests and abilities with program philosophy and goals.

Graduate Research Requirements

There are three options from which students can select to fulfill the graduate research requirement. These options are listed below and should be determined in consultation with the student’s academic advisor.

Option I: Thesis

The student must present a satisfactory thesis and defend it before a thesis committee of at least three members. The committee must include at least one member from outside the department. The thesis option requires a minimum of 30 semester hours, with no fewer than 15 semester hours in courses numbered 800-899 and at least 24 hours in courses numbered 700-899. Enrollment in PSYCH 890 Research and Thesis must be for 3-6 hours and is included in the semester hour requirements. The thesis must meet the requirements of the Graduate Studies thesis manual.

Option II: Applied Research

The student will complete research related to a specific problem or will complete a specific advanced project. This option includes creative and aesthetic efforts such as performances, exhibits, or creative writing. The applied research option requires a minimum of 32 hours of coursework, with no fewer than 15 semester hours in courses numbered 800-899 and at least 26 hours in courses numbered 700-899. Enrollment in PSYCH 891 Methods of Research in Psychology and Counseling must be for 3 hours and is included in the semester hour requirements.

Option III: Coursework

The student will complete coursework that demonstrates evidence of advanced work in an area of concentration. Departments will require evidence of competency through activities such as research papers, portfolios, practica, internships, etc. Students should check with their major department for specific requirements in the coursework option. The coursework option requires a minimum of 32 hours of coursework, with no fewer than 15 semester hours in courses numbered 800-899 and at least 26 hours in courses numbered 700-899.

Comprehensive Examinations

All graduate students in the department are required to pass a written comprehensive examination in their last semester of enrollment. Students must register for the comprehensive examinations in the department office no later than the date for petitioning for degrees.

For those who do not pass the examination, the following policies apply:

1. The examination must be retaken within one year to maintain eligibility to satisfactorily pass the examination.
2. The examination may be retaken after a failure only one time. A candidate who does not satisfactorily pass the second time will be dismissed from his/her program.
Enrollment in Practicum, Internship, Fieldwork

Any student wishing to enroll in a practicum, internship, or fieldwork of any type in the Department of Psychology and Counseling must complete the application process. Formal application must be made to the department no later than mid-semester of the semester before enrollment in the practicum, internship, or fieldwork course (mid-fall to enroll during the spring semester; mid-spring for enrollment in the summer and/or fall semesters).

Admission to graduate practica or internship is open only to students who have been admitted to candidacy in the specific degree program for which the practicum/internship is required. (The exception to this rule is for students who are re-specializing and adding a second endorsement in elementary or secondary school counseling. A certification contract is required.) Specific prerequisite coursework requirements apply. Application forms are available in the department office.

Bachelor of Arts Degree with a Major in Psychology

The BA degree with a major in psychology is designed for the student who wishes to pursue the scientific study of psychology as part of a liberal arts education. It is also designed for students who wish to obtain a graduate degree in psychology. Beyond the minimum course requirements in psychology, the student takes courses in the liberal arts and in a foreign language in order to better understand the place of psychology in today's international community.

Common Core (Required) (24 hours)
PSYCH 165: Psychology as a Profession I .................. 2
PSYCH 263: Developmental Psychology ...................... 3
PSYCH 389: Research Methods in Psychology I .......... 3
PSYCH 392: Research Methods in Psychology II .......... 3
PSYCH 394: Principles of Learning .......................... 3
PSYCH 463: Cognitive Processes .............................. 3
PSYCH 571: Abnormal Psychology ........................... 3
PSYCH 665: Psychology as a Profession II .............. 1
PSYCH 724: Physiological Psychology ....................... 3
or PSYCH 698: Sensation and Perception .................... 3

BA Psychology Core
Degree Core Required (in addition to required Common Core) (6 hours)
PSYCH 456: Introduction to Social Psychology ............... 3
or PSYCH 685: Psychology of Personality .................... 3
PSYCH 761: History and Systems of Psychology ............. 3

Electives in Psychology (6 hours)

Total hours in the major (36 hours)

Minor (20 hours)
A minor of at least 20 hours in some other field is required.

Foreign Language (10 hours)
The BA requires 10 hours in one foreign language.

General Education Requirements (46-53 hours)

General Electives (to bring total to 124 hours)

Total hours for Bachelor of Arts Degree with a Major in Psychology (124 hours)

Bachelor of Science Degree with a Major in Psychology

The BS degree with a major in psychology is for the student interested in the study of the applied aspects of psychology with an emphasis on practical skills. This program requires a concentration of courses in developmental disabilities, case management, substance abuse services, human resource development, human factors, or psychology and legal issues.

Common Core (Required) (24 hours)
PSYCH 165: Psychology as a Profession I .................. 2
PSYCH 263: Developmental Psychology ...................... 3
PSYCH 389: Research Methods in Psychology I .......... 3
PSYCH 392: Research Methods in Psychology II .......... 3
PSYCH 394: Principles of Learning .......................... 3
PSYCH 463: Cognitive Processes .............................................. 3
PSYCH 571: Abnormal Psychology ............................................. 3
PSYCH 665: Psychology as a Profession II ................................. 1
PSYCH 724: Physiological Psychology ....................................... 3
or PSYCH 698: Sensation and Perception ..................................... 3

**BS Psychology Core**

Degree Core Required (in addition to required Common Core) (3 hours)

PSYCH 456: Introduction to Social Psychology .................. 3
or PSYCH 685: Psychology of Personality ................................. 3

**Electives in Psychology (9 hours)**

Total hours in the major (36 hours)

**Area of Concentration**

**Option I: Developmental Disabilities (27 hours)**

MGMKT 327: Organizational Theory and Behavior
............................................................................................. 3
MGMKT 629: Human Resource Management ............................... 3
PSYCH 357: Educational Psychology ............................................ 3
PSYCH 736: Psychology of Family Development ..................... 3
PSYCH 741: Behavior Modification .............................................. 3
REC 311: Recreation Program Design and Leadership
........................................................................................... 3
SPED 510: Overview of Special Education .................................. 3
or PSYCH 781: Psychology of Exceptional Children
.............................................................................................. 3
SPED 738: Characteristics of Students with Adaptive Learning Needs
.............................................................................................. 3
SWK 344: Mental Health Theory and Practice .............................. 3

**Option II: Case Management (30 hours)**

PSYCH 701: Ethics in Human Services ...................................... 3
PSYCH 703: Mental Health Case Management ............................ 3
PSYCH 711: Addictions I ............................................................. 3
PSYCH 736: Psychology of Family Development ...................... 3
PSYCH 741: Behavior Modification ............................................. 3
PSYCH 781: Psychology of Exceptional Children ....................... 3
SWK 201: Introduction to Social Work ....................................... 3
SWK 599: Social Work and the Law .......................................... 3

**And 6 hours chosen from:**

PSYCH 275: Psychology of Adjustment ...................................... 3
PSYCH 616: Introduction to Group Processes ............................. 3
PSYCH 778: Fieldwork in Psychology ........................................ 1-3
PSYCH 720: Multicultural Issues in Psychology and Counseling
.............................................................................................. 3
SWK 345: Topics in Social Work (____) ....................................... 1-3
SWK 365: Social Process and Social Policy ................................. 3
SWK 385: Human Behavior Social Environment: Individual and Family Functioning .............................................. 3

- Or additional workshops or courses by advisement

PSYCH 701, PSYCH 703 and PSYCH 720 offered odd number summers only.

PSYCH 711 offered every summer.

SWK 345 Topic is Correctional Case Management.

**NOTE:** To complete Option II: Case Management, the student must apply (application available in the department office) and be accepted before undertaking coursework in Option II. Completion of Option II requires enrollment during at least two summer sessions.

**Option III: Substance Abuse Services (30 hours)**

PSYCH 616: Introduction to Group Processes ............................ 3
PSYCH 701: Ethics in Human Services ...................................... 3
PSYCH 711: Addictions I ............................................................. 3
PSYCH 720: Multicultural Issues in Psychology and Counseling
.............................................................................................. 3
PSYCH 727: Pharmacology and Substance Abuse .................... 3
PSYCH 774: Family and Addictions ............................................ 3
PSYCH 775: Individual Counseling in Addictions ...................... 3
PSYCH 776: Addiction Services Coordination ............................ 3
PSYCH 777: Fieldwork in Psychology for Substance Abuse Services ................................................................. 3

PSYCH 777 should be taken for a total of 6 hours.

PSYCH 701, PSYCH 720 offered odd number summers only.
PSYCH 727, PSYCH 774, PSYCH 775 and PSYCH 776 offered even number summers only.

PSYCH 711 offered every summer.

NOTE: To complete Option III: Substance Abuse Services, the student must apply (application available in the department office) and be accepted before undertaking coursework in Option III: Substance Abuse Services. (Completion of all coursework qualifies graduates for licensure as addictions counselors through the Behavioral Sciences Regulatory Board in Kansas.) Completion of this option requires enrollment during at least two summer sessions.

**Option IV: Human Resource Development (27 hours)**
PSYCH 575: Industrial and Organizational Psychology ......................................................... 3
HRD 596: Introduction to Human Resource Development ..................................................... 3
HRD 706: Personnel Development in Business and Industry .................................................. 3
HRD 793: Evaluation in Human Resource Development ......................................................... 3
MGMKT 327: Organizational Theory and Behavior ................................................................. 3
MGMKT 444: Legal and Social Environment of Business ....................................................... 3
MGMKT 629: Human Resource Management ....................................................................... 3
PSYCH 616: Introduction to Group Processes ........................................................................ 3
PSYCH 779: Fieldwork in Psychology: Human Resource Development Practicum ............... 1-3
LDSP 600: Foundations of Leadership .................................................................................... 3
LDSP 601: Service Learning Seminar ..................................................................................... 1
LDSP 602: Leadership Seminar ............................................................................................. 2
TM 390: Trade and Job Analysis ............................................................................................ 3
TM 653: Workforce Preparation ........................................................................................... 3
TM 679: Presentation Skills .................................................................................................... 3
TTED 606: Industrial Supervision ......................................................................................... 3

ECON 465, MGMKT 444, MGMKT 629 - See course description for prerequisite information.

MGMKT 327 is a pre-requisite for MGMKT 629.

LDSP 601 and LDSP 602 permission of instructor is required.

**Option V: Human Factors (27 hours minimum)**
PSYCH 575: Industrial and Organizational Psychology ......................................................... 3
PSYCH 675: Human Factors Psychology ............................................................................... 3
PSYCH 724: Physiological Psychology ............................................................................... 3
or PSYCH 698: Sensation and Perception ......................................................................... 3

**Electives chosen from the following categories (18-20 hours)**

**Biology**
BIOL 257: Anatomy and Physiology ............................................................................... 3
and BIOL 258: Anatomy and Physiology Laboratory ....................................................... 2

BIOL 257/258 see course description for prerequisite information.

**Safety (no more than three courses from this category count toward concentration):**
EST 393: Introduction to Industrial Safety ................................................................. 3
EST 512: Risk Assessment ................................................................................................. 3
EST 604: Occupational Health and Safety ....................................................................... 3
EST 629: Legal Issues in Environmental Health and Safety ........................................... 3

**Mathematics and Computer Information Systems (no more than three courses from this category count toward concentration)**
MATH 150: Calculus I ........................................................................................................ 5
MATH 155: Calculus II ....................................................................................................... 5
CIS 230: Visual Basic Programming ............................................................................... 3
CIS 325: Advanced Visual Basic Programming .............................................................. 3
CIS 380: Application Systems Analysis and Design Methods ........................................... 3
CIS 230, CIS 325 and CIS 380 see course description for prerequisite information.

**Electronics Engineering Technology:**
EET 141: Introductory Electronics .............................................. 3
EET 144: D.C. Circuit Analysis Methods .................................. 3
EET 244: Logic Circuits .......................................................... 3

EET 144 and EET 244 see course description for prerequisite information.

**General Technology:**
GT 191: Foundations of Technology and Engineering .................................. 2
GT 330: Engineering Materials and Processes .......................... 3
GT 380: Manufacturing Enterprise ............................................... 3

PSYCH 724 or PSYCH 698 whichever course was not taken as a part of the core.

GT 380 see course description for prerequisite information.

**Option VI: Psychology and Legal Issues (27 hours)**
JUST 104: Introduction to the Justice System .................. 3
or JUST 109: Principles of Justice Studies .................. 3
PSYCH 275: Psychology of Adjustment ............................... 3
PSYCH 575: Industrial and Organizational Psychology .................. 3
PSYCH 741: Behavior Modification .................................. 3
PSYCH 771: Psychology and the Law .................................. 3
PSYCH 773: Criminal Psychopathology .................................. 3

**And 9 hours chosen from:**
FCS 580: Family Violence and Child Abuse .................. 3
JUST 480: Women, Crime, and Justice .............................. 3
JUST 500: Criminal Law and Society .................................. 3
JUST 501: Criminal Procedure ............................................. 3
JUST 521: Special Topics in Justice Studies (___) .......... 1-3
JUST 522: Crime Scenes and the Law of Evidence ........ 3
POL 661: Constitutional Law I ......................................... 3
SOC 527: Correctional Systems ........................................... 3
SOC 547: Criminology ......................................................... 3
SOC 548: Juvenile Delinquency ........................................... 3

- Or other additional course(s) or workshops through advisement

PSYCH 771 and PSYCH 773 offered even number summers only.

General Education Requirements (46-53 hours)

General Electives (to bring total to 124 hours)

Total hours for Bachelor of Science Degree with a Major in Psychology (124 hours)

NOTE: Completion of Option VI requires enrollment during at least one summer session.

**Bachelor of Science in Education Degree with a Major in Psychology**
The BSEd degree with a major in psychology is for persons interested in careers as teachers and, with further study, as college teachers or school counselors. It emphasizes human development, educational psychology and psychology of exceptional children. Along with the study of psychology, students pursue the coursework necessary to meet licensure requirements to teach some other subject in addition to psychology in the secondary schools of Kansas. A Basic Skills test must be passed prior to admission to teacher education. Also see Scholastic Achievement in Common Core.

**Common Core (Required) (24 hours)**
PSYCH 165: Psychology as a Profession I .................. 2
PSYCH 263: Developmental Psychology ......................... 3
PSYCH 389: Research Methods in Psychology I ................. 3
PSYCH 392: Research Methods in Psychology II ................. 3
PSYCH 394: Principles of Learning .................................. 3
PSYCH 463: Cognitive Processes .................................. 3
PSYCH 571: Abnormal Psychology .................................. 3
PSYCH 665: Psychology as a Profession II .................. 1
PSYCH 724: Physiological Psychology ......................... 3
or PSYCH 698: Sensation and Perception ......................... 3

**BSEd Psychology Core**
Degree Core Required (in addition to required Common Core) (6 hours)
PSYCH 275: Psychology of Adjustment .............................. 3
PSYCH 357: Educational Psychology .............................. 3

Must be admitted to Teacher Education to enroll in PSYCH 357.

Electives in Psychology (6 hours)
Total hours in the major (36 hours)
Students must meet requirements for certification to teach some other subject in the secondary schools in Kansas (second teaching field which replaces the requirements of a minor). Students must also complete all teacher education admission and course requirements.

Professional Education Requirements*
PSYCH 155: General Psychology .................................. 3
PSYCH 263: Developmental Psychology ..................... 3
PSYCH 357: Educational Psychology .............................. 3
EDUC 261: Explorations in Education ............................. 3

@ 479 Techniques of Teaching (___) (3 hours)
SPED 510: Overview of Special Education ................... 3
EDUC 520: Methods and Materials for Academic Literacy .................................................................................. 3

Professional Semester**** (17 hours)
EDUC 458: Methods and Curriculum ............................. 3
EDUC 462: Secondary and Middle Level Education
.................................................................................................................................................................................. 2
EDUC 464: Foundations of Measurement and Evaluation .............................................................................................. 2
EDUC 480: Supervised Teaching in the Secondary School ......................................................................................... 3
EDUC 482: Supervised Teaching in the Secondary School .............................................................................................. 5

  • @ 579 Supervised Student Teaching and Follow-up of Teachers (2 hours)

General Education Degree Requirements for Students Preparing to Teach Secondary School (43-51 hours)
(see General Education Requirements for Students Preparing to Teach Secondary School)

General Electives (to bring total to 124 hours)
Total hours for Bachelor of Science in Education Degree with a Major in Psychology (124 hours)

* See Admission to Professional Semester for professional education grade point requirements.

****Applications for the professional semester must be made by February 15 for the fall semester and September 15 for the spring semester.

@This course to be taken in the department of the student's second teaching field.

PSYCH 263 and PSYCH 357 count toward requirements for the 36 hour psychology major.

EDUC 261 recommended this course be taken in sophomore year.

PSYCH 155 General Psychology satisfies 3 hours of the general education Health and Well Being requirement.

Must be admitted to Teacher Education to enroll in PSYCH 357, EDUC 520 and 479 Techniques of Teaching.

SPED 510 or its equivalent.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.
Psychology as a Second Teaching Field

To receive the departmental endorsement for certification in psychology as a second teaching field, the Department of Psychology and Counseling requires the following 11 hours of coursework in psychology (in addition to prerequisite courses and the courses required of all teacher education candidates):

PSYCH 165: Psychology as a Profession I ..................2
PSYCH 275: Psychology of Adjustment ........................3
PSYCH 392: Research Methods in Psychology II ........3
PSYCH 463: Cognitive Processes ..........................3

Minor in Psychology

To complete a minor in psychology, the student takes 21 hours—usually seven courses—in psychology. In meeting this requirement, students may take any psychology courses for which they have the prerequisites. Only three hours of credit earned in PSYCH 440 or 740 Topics in Psychology and only three hours of credit earned in PSYCH 592 Applied Research Methods will be counted in the 21-hour minor.

Psychology faculty will advise students concerning psychology courses appropriate for specific majors.

Minor in Psychology for Justice Studies Majors

The Department of Psychology and Counseling has developed a series of courses for a minor in Psychology that would be highly suitable for Justice Studies majors. Number of hours required for the minor is 21-22 hours. (Note: PSYCH 771 and PSYCH 773 are offered even number summers only.)

PSYCH 389: Research Methods in Psychology I ........3
or SOSCI 388: Social Research Analysis ....................4
PSYCH 392: Research Methods in Psychology II ........3
PSYCH 456: Introduction to Social Psychology ..........3
PSYCH 571: Abnormal Psychology ..........................3
PSYCH 575: Industrial and Organizational Psychology .................................................................3
PSYCH 771: Psychology and the Law ....................3
PSYCH 773: Criminal Psychopathology ....................3

Minor in Substance Abuse Services

To complete the minor in substance abuse services, the student completes the 33 hours listed below. Students must apply (application available in the department office) and be accepted before undertaking coursework in the substance abuse services minor. (Completion of all coursework qualifies graduates for licensure as addictions counselors through the Behavioral Sciences Regulatory Board in Kansas.) Completion of this minor requires enrollment during at least two summer sessions. (Note: PSYCH 701 and PSYCH 720 are offered odd number summers only. PSYCH 727, PSYCH 774, PSYCH 775 and PSYCH 776 are offered even number summers only. PSYCH 711 is offered ever summer only. PSYCH 777 should be taken for 6 hours.)

Required Courses

PSYCH 571: Abnormal Psychology ..........................3
PSYCH 616: Introduction to Group Processes ..............3
PSYCH 701: Ethics in Human Services ........................3
PSYCH 711: Addictions I .......................................3
PSYCH 720: Multicultural Issues in Psychology and Counseling ...........................................................3
PSYCH 727: Pharmacology and Substance Abuse ........3
PSYCH 744: Family and Addictions .........................3
PSYCH 775: Individual Counseling in Addictions ........3
PSYCH 776: Addiction Services Coordination ............3
PSYCH 777: Fieldwork in Psychology for Substance Abuse Services .................................................3

PSYCH 777 should be taken for a total of six hours.

Master of Science Degree with a Major in Psychology (General and Clinical Psychology)

Master of Science Degree with an Emphasis in General Psychology

The MS degree requires a core of 15 (18 for thesis option) hours followed by additional courses to total a minimum of 33 hours. Beyond the core the student can, through advisement, direct studies for the MS degree toward a terminal program in general psychology, toward community college teaching of psychology, toward a pre-doctoral program, or toward a pre-specialist program in school psychology.
Completion of the MS degree with a major in psychology (general) does not qualify an individual to be a mental health service provider. The program is not designed to train practitioners and thus students seeking the general MS are not eligible to enroll in a practicum or internship in the department. Those students planning to apply for the EdS in School Psychology should consult with their advisor in selecting elective courses.

**Master of Science Degree with an Emphasis in Clinical Psychology**

The MS degree with a major in psychology (clinical emphasis) meets the requirements of the Kansas Directors of Mental Health Centers for master’s level psychologists and the Kansas Behavioral Sciences Regulatory Board course work and fieldwork requirements for Licensed Master’s Level Psychologists. Additional field experience and the licensure examination qualifies graduates for licensure as clinical psychotherapists in Kansas. A minimum of 67 hours is typically required, including coursework in psychopathology, assessment, treatment, and research; and 750 clock hours of practicum and internship experiences. Admission to this program is competitive and is limited to the number of internship sites available. The program in clinical psychology is accredited by the Masters in Psychology Accrediting Council (MPAC) and is approved by the Council of Applied Masters Programs in Psychology (CAMPP).

**Master of Science Degree with an Emphasis in General Psychology Required Core (18 hours)**

PSYCH 722: Fundamentals of Tests and Measurement ............................................. 3  
PSYCH 741: Behavior Modification ................................................................. 3  
PSYCH 830: Psychology of Learning ............................................................... 3  
PSYCH 834: Introduction to Human  
Neuropsychology ............................................................................. 3  
PSYCH 859: Advanced Developmental Psychology ........ 3  
PSYCH 891: Methods of Research in Psychology and Counseling ........................................ 3  

Plus a minimum of 15 hours (to total a minimum of 33 hours) chosen in consultation with the student's advisor. (Must include PSYCH 890 Research and Thesis for students electing Option I).

Total hours for Emphasis in General Psychology (33 hours)

**Master of Science Degree with an Emphasis in Clinical Psychology**

**Required Core (58 hours)**

PSYCH 722: Fundamentals of Tests and Measurement .......................................................... 3  
PSYCH 801: Ethical Issues in Clinical Psychology ................................................... 2  
PSYCH 803: Intellectual Assessment ........................................................................... 3  
PSYCH 808: Child Personality Assessment .................................................................. 3  
PSYCH 809: Personality Assessment ........................................................................... 3  
PSYCH 811: Psychopathology and Diagnosis of Mental Disorders ................................................................. 3  
PSYCH 818: Theories of Counseling and Psychotherapy .................................................. 3  
PSYCH 819: Techniques of Counseling and Psychotherapy .............................................. 3  
PSYCH 832: Evidence-Based Interventions: Adults ..................................................... 3  
PSYCH 834: Introduction to Human  
Neuropsychology ............................................................................. 3  
PSYCH 839: Group Interventions ............................................................................. 3  
PSYCH 860: Clinical Psychology ............................................................................. 2  
PSYCH 872: Practicum in Psychology ................................................................. 1-6  
PSYCH 890: Research and Thesis ............................................................................. 3-6  
PSYCH 891: Methods of Research in Psychology and Counseling ........................................ 3  
PSYCH 895: Internship: (___) ............................................................................. 3-12  
PSYCH 890 Research and Thesis (or Therapy/Assessment Elective by Advisement)  
PSYCH 895 Internship (Clinical Psychology)

Plus nine hours of electives selected from chosen area below:
Electives for General Community Mental Health Option: (chosen from) (9 hours)

PSYCH 711: Addictions I ............................................................3
PSYCH 720: Multicultural Issues in Psychology and Counseling ..................................................3
PSYCH 736: Psychology of Family Development ............3
PSYCH 817: Theories and Techniques of Family Counseling and Therapy ..................................................3
PSYCH 833: Evidence-Based Interventions: Children ...............................................................3
PSYCH 844: Diversity Issues in Counseling .................3
PSYCH 845: Practice in Family Counseling ..........1-3
PSYCH 854: Group Counseling ...............................................3

Electives for Mental Retardation-Developmental Disabilities Option: (chosen from) (9 hours)

PSYCH 741: Behavior Modification ...............................................................3
PSYCH 781: Psychology of Exceptional Children ..........3
PSYCH 805: Psychoeducational Assessment .........................3
PSYCH 830: Psychology of Learning ........................................3

Electives for Child and Family Option: (chosen from) (9 hours)

PSYCH 736: Psychology of Family Development ..........3
PSYCH 817: Theories and Techniques of Family Counseling and Therapy ..................................................3
PSYCH 833: Evidence-Based Interventions: Children ...............................................................3
PSYCH 844: Diversity Issues in Counseling .................3
PSYCH 845: Practice in Family Counseling ..........1-3
PSYCH 859: Advanced Developmental Psychology ..........3

Electives for Addictions Option: (chosen from) (9 hours)

PSYCH 711: Addictions I ............................................................3
PSYCH 720: Multicultural Issues in Psychology and Counseling ..................................................3
PSYCH 774: Family and Addictions ........................................3
PSYCH 776: Addiction Services Coordination ..................3

Total hours for Master of Science Degree with an Emphasis in Clinical Psychology (67 hours)

Pre-requisites for entry into Clinical Psychology program include: PSYCH 389 Research Methods in Psychology I, PSYCH 392 Research Methods in Psychology II, PSYCH 571 Abnormal Psychology, and PSYCH 685 Psychology of Personality.

Master of Science Degree with a Major in Counseling (School and Clinical Mental Health Counseling)

Master of Science Degree with an Emphasis in Clinical Mental Health Counseling

Mission Statement

The mission of the MS in clinical mental health counseling emphasis program in the Department of Psychology and Counseling at Pittsburg State University is to prepare qualified graduate students to be effective counselors who will provide a variety of quality professional counseling services to those with whom they work and to prepare them for appropriate licensure, professional development and/or advanced graduate study. The primary focus of training is directed toward those who will begin their professional counseling careers in the four-state area of Kansas, Missouri, Oklahoma, and Arkansas. Graduates are also well trained to seek licensure, work, and further graduate study throughout the United States and the global community.

Program Description

The program includes a core of courses based upon the content areas recommended by the National Board for Certified Counselors and required in the accreditation standards of the Council for the Accreditation of Counseling and Related Educational Programs. Students must demonstrate competency in three major areas in order to complete the degree and become eligible for endorsement or recommendation as a counselor: effective personal functioning, professional commitment, and skilled practice. The clinical mental health counseling program is accredited by the Council for the Accreditation of Counseling and Related...
Educational Programs (CACREP) as a Clinical Mental Health Counseling program. Students wishing to pursue registration or licensure as professional counselors should understand that additional years of supervised experience (beyond the degree) are required by the state in which licensure is sought. For professional counselor licensure in Kansas, a total of 60 graduate hours is required. For further information, please refer to the MS in Clinical Mental Health Counseling Program Guide and Student Orientation Manual available at the following website http://www.pittstate.edu/department/psychology/graduate-degree-programs.dot.

Inclusive Recruitment Policy

It is the policy of the MS in clinical mental health counseling program at Pittsburg State University to seek and welcome applications from qualified persons representing a diverse society and world. The faculty strongly believes that the training environment is enhanced by interaction among a multicultural diverse student body and faculty, and that counseling practitioners must be prepared to work in a society and world with clients across a wide range of diversity. Although oral English skills are necessary to complete the training program, a number of students from countries other than the United States, as well as representative of minority cultures in the U.S., have graduated from the program. The broad-spectrum admission policy used to review applications assures the flexibility to give special consideration to unique features of an applicant’s personal and cultural background that would add to the diversity of the student body. In addition, the emphasis upon multicultural diversity in the MS clinical mental health counseling program is consistent with the affirmative action and proactive diversity policies of Pittsburg State University and the College of Education.

Specific Requirements

Graduate students may meet requirements for the MS degree with a major in counseling by completing a program planned in close collaboration with their academic advisor. The MS program in clinical mental health counseling requires a minimum of 32 core hours required of all counseling majors, including a research proficiency component, 12 hours of required coursework specific to the clinical mental health counseling program emphasis, four hours of psychology and counseling directed electives, and 16 hours of supervised fieldwork experience in practicum and internship settings. The research requirement may be satisfied as described in the section Graduate Research Requirements.

Master of Science Degree with an Emphasis in School Counseling (Pre K-12)

The MS degree with an emphasis in School Counseling prepares candidates for professional careers as school counselors in Pre K-12 settings. Candidates interested in pursuing the MS degree in School Counseling are strongly encouraged to complete an undergraduate degree in education. Although two years of teaching experience was required for candidates planning to secure employment as school counselors in the state of Kansas in the past, that is no longer a requirement but is still recommended. Candidates without a degree in education or teaching experience will be required to complete additional coursework not reflected on this program guide. In addition to completing the following 48 hour program of study in School Counseling, a passing score on the PRAXIS II specialty test in Guidance and Counseling (code 20420) is needed as well.

Master of Science Degree with a Major in Clinical Mental Health Counseling Curriculum

Required Core (32 hours)

PSYCH 722: Fundamentals of Tests and Measurement .............................................................. 3
PSYCH 745: Introduction to Counseling and Psychotherapy ....................................................... 3
PSYCH 748: Career Development ........................................... 2
PSYCH 816: Group Dynamics ................................................... 3
PSYCH 817: Theories and Techniques of Family Counseling and Therapy ........................................ 3
PSYCH 818: Theories of Counseling and Psychotherapy ......................................................... 3
PSYCH 819: Techniques of Counseling and Psychotherapy ............................................. 3
PSYCH 844: Diversity Issues in Counseling ............................................. 3
PSYCH 854: Group Counseling ................................................................. 3
PSYCH 859: Advanced Developmental Psychology ............................................. 3
PSYCH 891: Methods of Research in Psychology and Counseling ............................................. 3

Clinical Mental Health Counseling Program Courses (12 hours)

PSYCH 749: Crisis Management and Treatment ..................... 1
PSYCH 809: Personality Assessment ................................................................. 3
PSYCH 811: Psychopathology and Diagnosis of Mental Disorders ............................................. 3
PSYCH 827: Clinical Mental Health Counseling Practice ............................................. 2
PSYCH 832: Evidence-Based Interventions: Adults ..................... 3

Supervised Field Experience (16 hours)

PSYCH 822: Practicum in Counseling (____) ............................................. 3
PSYCH 845: Practice in Family Counseling ............................................. 1-3
PSYCH 855: Group Counseling Practicum ............................................. 1
PSYCH 856: Group Counseling Internship ............................................. 1
PSYCH 895: Internship: (____) ................................................................. 3-12

Total hours for Clinical Mental Health Counseling (60 hours)

PSYCH 822 Practicum in Counseling topic is Clinical Mental Health Counseling. PSYCH 845 or elective by advisement. PSYCH 895 Internship topic is Clinical Mental Health Counseling. PSYCH 856 should be taken twice for a total of 2 credit hours.

Master of Science Degree with a Major in School Counseling Curriculum

Courses listed are in the recommended order they should be taken.

Courses are offered every semester unless indicated otherwise.

PSYCH 745: Introduction to Counseling and Psychotherapy ............................................. 3

PSYCH 722: Fundamentals of Tests and Measurement ............................................. 3
PSYCH 816: Group Dynamics ................................................................. 3
PSYCH 748: Career Development ......................................................... 2
PSYCH 818: Theories of Counseling and Psychotherapy ............................................. 3
PSYCH 819: Techniques of Counseling and Psychotherapy ............................................. 3
PSYCH 814: Program Planning and Management in School Counseling ..................... 2
PSYCH 826: Contemporary and Ethical Issues in School Counseling ..................... 1
PSYCH 859: Advanced Developmental Psychology ............................................. 3
PSYCH 817: Theories and Techniques of Family Counseling and Therapy ............................................. 3
PSYCH 844: Diversity Issues in Counseling ............................................. 3
PSYCH 740: Topics in Psychology: (____) ............................................. 1/2-3
and/or PSYCH 840: Seminar: (____) ............................................. 1/2-3
SPED 861: The Professional Special Educator ............................................. 3

Choose one of the following (3 hours)

PSYCH 891: Methods of Research in Psychology and Counseling ............................................. 3
TCHL 891: Methods of Research ................................................................. 3

PSYCH 891 offered spring semester only.

Choose one of the following (3 hours)

PSYCH 803: Intellectual Assessment ................................................................. 3
SPED 750: Assessment in Special Education ......................................................... 3
PSYCH 822: Practicum in Counseling (____) ............................................. 3
PSYCH 895: Internship: (____) ................................................................. 3-12

Total hours for School Counseling (48 hours)

PSYCH 803, PSYCH 822 and PSYCH 895 offered fall and spring semester. SPED 750 offered fall and summer semester.

No Teaching Background:

Applicants applying to PSU’s School Counseling program, who do not have a teaching background (either an education degree or teaching experience), will be required to complete the following additional
coursework in addition to the 48 hour Master’s degree in School Counseling:

PSYCH 781: Psychology of Exceptional Children ............ 3

**One course chosen from the following: (3 hours)**

SPED 745: Behavior Analysis and Management ............ 3
PSYCH 810: Advanced Educational Psychology ............ 3
TCHL 836: Positive Classroom Management ................. 3

PSYCH 722 and PSYCH 818 offered fall and spring semester. PSYCH 748 and PSYCH 817 offered spring semester only. PSYCH 814 and PSYCH 826 offered summer semester only. PSYCH 859 offered fall and summer semester. PSYCH 844 offered fall semester only.

PSYCH 781 offered fall semester only.

KSDE also requires field experiences of two additional three hour courses over two semesters, beyond what’s required in PSU’s School Counseling program. Additionally, an Induction/Internship year of supervised Internship while employed as a school counselor is also required.

**Specialist in Education Degree with a Major in Counseling**

The EdS Degree in Counseling is an advanced graduate counseling degree designed to allow professionally trained mental health practitioners to re-specialize or further specialize within the discipline of professional counseling. The program requires prior completion of a master’s degree in counseling (or its equivalent) and requires the completion of 30 (Option I) to 32 (Option II and III) semester hours of coursework, including a 15 semester hour core and 15-17 semester hours of electives in a specialty in counseling. (Option I requires completion of an EdS level thesis.)

Students may choose to specialize by completing elective courses in clinical mental health counseling, elementary or secondary school counseling, family counseling, or other specialty areas.

For All EdS in Counseling Students:

1. EdS students must have completed all of the requirements in the PSU Community Counseling or School Counseling program or their equivalents before being granted an EdS degree. PSYCH 831 Techniques of Supervision of Counseling and Psychotherapy under the supervision of the 819 Techniques instructor is always the first required course in the supervision course sequence before other supervision courses may be taken. PSYCH 831 is a prerequisite for PSYCH 931 Advanced Techniques of Supervision of Counseling and Psychotherapy.

2. All EdS students will be required to complete at least one graded three-credit hour seat course (e.g., PSYCH 724, PSYCH 736, PSYCH 741, PSYCH 756, PSYCH 761, PSYCH 781, PSYCH 803, PSYCH 805, PSYCH 808, PSYCH 809, PSYCH 811, PSYCH 823, PSYCH 830, PSYCH 844).

3. It is strongly recommended that all EdS students complete at least three credit hours of summer short courses (workshops) as part of their programs to provide them with additional specialty knowledge and skills.

4. Attendance in at least one state, regional, national, or international counseling convention will be required of all EdS students.

For Clinical Mental Health Counseling EdS in Counseling Students:

All Clinical Mental Health Counseling EdS students will be required to complete at least six hours of supervision courses, three credit hours of PSYCH 831 or PSYCH 931 under the PSYCH 819 instructor working with PSYCH 819 or PSYCH 822-895 and three credit hours of PSYCH 931 working under the Truancy Diversion Director supervising students in the Truancy Diversion program. Both PSYCH 831 and PSYCH 931 may be repeated for credit. Additional semesters of advanced supervision experience may be completed under a counseling faculty member. A maximum of 12 credit hours of supervision may be counted toward a graduate degree.
Specialist in Education Degree with a Major in Counseling Curriculum

Required Core (15 hours)
PSYCH 910: Advanced Counseling Theories ..........................3
PSYCH 912: Advanced Counseling Practicum ..........................1-3
TCHL 930: Seminar in Research Skills ......................................3
or PSYCH 906: Special Investigation: (_____) ..........................1-3
or PSYCH 990: Special Research Project .................................3-6
PSYCH 931: Advanced Techniques of Supervision
of Counseling and Psychotherapy ........................................3
PSYCH 995: Internship: (_____) .............................................1-12
PSYCH 906 Special Investigation (Research Topic)

PSYCH 995 Internship (Counseling)

PSYCH 990 Special Research Project is required of all Option I candidates

Electives

- At least 15 hours (17 hours for Option II students) of specialty coursework in Psychology and Counseling, tailored to the student’s interests, at least six of which must be numbered 800 or above

Total hours for the EdS in Counseling (30-32 hours)

Specialist in Education Degree with a Major in School Psychology
The Specialist in Education degree with a major in school psychology is designed to provide degree candidates with the competencies necessary to function effectively as school psychologists in special education cooperatives, public schools and institutional settings. Persons with a bachelor’s degree may begin working toward the MS General Psychology degree in psychology. All EdS applicants must have a master’s degree in psychology or a related field, including at least 10 hours of graduate work applicable to the area of school psychology. The candidate for this degree must meet requirements for initial licensure as a school psychologist in the state of Kansas. Full licensure requires completion of this degree plus one school year of internship. The program must include a minimum of 32 hours of approved coursework beyond the master's degree, of which 21 hours must be numbered 800 or above and at least nine of the 21 hours must be numbered 900 or above. This curriculum adheres to the standards established by the Kansas State Department of Education and to the curriculum recommendations of the National Association of School Psychologists (NASP).

Admission is competitive and limited to the number of practicum sites available.

Specialist in Education Degree with a Major in School Psychology Curriculum
Prerequisites: PSYCH 263 Developmental Psychology,
PSYCH 357 Educational Psychology, PSYCH 389 Research Methods in Psychology I, PSYCH 392 Research Methods in Psychology II, PSYCH 571 Abnormal Psychology,
PSYCH 685 Psychology of Personality, PSYCH 722 Fundamentals of Tests and Measurement, and PSYCH 781 Psychology of Exceptional Children (or SPED 510 Overview of Special Education).

The following sequence of courses meets Kansas State Department of Education requirements for initial licensure as a school psychologist:

Courses Taken in the Master’s Degree
Program in Psychology (34 hours)

Required Core (18 hours)
PSYCH 722: Fundamentals of Tests and Measurement .................................................................3
PSYCH 741: Behavior Modification ..................................................3
PSYCH 830: Psychology of Learning ...............................................3
PSYCH 834: Introduction to Human Neuropsychology ..................................................3
PSYCH 859: Advanced Developmental Psychology .............3
PSYCH 891: Methods of Research in Psychology and Counseling ..................................3
M.S. Electives Taken to Meet Certification Requirements (16 hours)

PSYCH 755: Introduction to School Psychology ............1
PSYCH 783: Ethical and Legal Issues in School Psychology and Related Fields ........................................3
PSYCH 817: Theories and Techniques of Family Counseling and Therapy ..................................................3
PSYCH 818: Theories of Counseling and Psychotherapy ........................................................................3
PSYCH 837: Assessment and Intervention with Early Childhood Disabilities ........................................3
SPED 849: Partnerships with Families of Exceptional Children and Youth ........................................3
or SPED 861: The Professional Special Educator ........3

Courses Taken in the Ed.S. Program in School Psychology (32-34 hours)

PSYCH 803: Intellectual Assessment ..........................3
PSYCH 805: Psychoeducational Assessment ..................3
PSYCH 808: Child Personality Assessment ....................3
PSYCH 819: Techniques of Counseling and Psychotherapy ........................................................................3
PSYCH 845: Practice in Family Counseling ..................1-3
PSYCH 870: Practicum in School Psychology ...............1-4
PSYCH 901: Contemporary Problems in School Psychology ........................................................................3
PSYCH 970: Advanced Practicum in School Psychology .................................................................1-12
PSYCH 990: Special Research Project ..........................3-6
or TCHL 930: Seminar in Research Skills ....................3

• PSYCH Electives (3-5 hours)

Internship (Post Degree, Required for Certification) (6 hours)

PSYCH 995: Internship: (____) ......................................1-12

PSYCH 995 Internship (School Psychology)(6 hours)
Teaching and Leadership

Chairperson: Alice Sagehorn
Associate Professor(s): James C. Christman*, Trinity Davis, Brenda Frieden*, Brenda Roberts*, Julie Samuels*, Tatiana Sildus*, Ray Willard*, Martha York*
Assistant Professor(s): Terri Cooper-Swanson*, Jean Dockers*, Gloria Flynn, Ann George*, Cindy Smith, Kathleen Spillman, Kristi Stuck*
Instructors: Patty Jo Clay, Michelle Hudiburg*, Elizabeth Mascher*, Pam Sells*, Edwin Streich*
Coordinator: Tom Petz

*Graduate Faculty
**University Professor

Room 201 Hughes Hall
Telephone: 620-235-4484
Fax: 620-235-4520
http://www.pittstate.edu/department/teaching-leadership/index.dot
E-mail: tchls@pittstate.edu

Undergraduate

Bachelor of Science in Education Degree with a Major in Early Childhood Unified (ECU) Birth through Third Grade
Bachelor of Science in Education Degree with a Major in Early Childhood/Late Childhood (K-6, Elementary Education)
Second Teaching Fields Middle Level Education
Minor in English for Speakers of Other Languages
Minor in Inclusive Education
Minor in International Teaching (Non Licensure)
Minor in Special Education
Minor in Leadership Studies
Minor in Special Education for Students Majoring in Family and Consumer Sciences- Early Childhood Emphasis
Minor in Technological Literacy

Minor in Urban and Suburban Experience (Non Licensure)

Graduate

Master of Arts Degree with a Major in Teaching (Secondary Teaching Licensure Program)
Master of Arts Degree with a Major in Teaching (Special Education Licensure Program)
Master of Science Degree with a Major in Educational Leadership
Master of Science Degree with a Major in Educational Technology
Master of Science Degree with a Major in Reading with Emphases in Reading Specialist Licensure or Classroom Reading Teacher
Master of Science Degree with a Major in Special Education Teaching
Master of Science Degree with a Major in Teaching with Emphases in Elementary, Secondary or English for Speakers of Other Languages
Specialist in Education Degree with a Major in Advanced Studies in Leadership with an Emphasis in General School Administration
Specialist in Education Degree with a Major in Advanced Studies in Leadership with an Emphasis in Special Education
Certificate in Autism Spectrum Disorders

The Department of Teaching and Leadership offers both undergraduate and graduate education and teacher licensure programs. The undergraduate degree programs include a major in Early Childhood/Late Childhood (K-6) leading to the Bachelor of Science in Education degree and, in partnership with Family and Consumer Sciences, an undergraduate major in Early Childhood Unified Birth through Third Grade including Special Education leading to the Bachelor of Science in Education degree.

The department offers six undergraduate minors available to any education major. They are: English for Speakers of Other Languages (Pre-K-12, which can lead to an endorsement to the teaching license); Inclusive Education; International Teaching, Leadership, Urban and Suburban Experience; and Technological Literacy.
The graduate programs are designed to meet the needs of individuals seeking additional preparation for teaching and/or leadership in K-12 schools and institutions of higher education. The graduate programs include: Master of Arts in Teaching with an emphasis in Secondary Education or Special Education; Master of Science in Educational Leadership; Master of Science in Educational Technology with an emphasis in Educational Integration Specialist or Library Media Specialist; Master of Science in Reading with an emphasis in Classroom Teacher or Reading Specialist; Master of Science in Special Education Teaching with endorsements in Adaptive Special Education K-6, 6-12 and Functional Special Education K-6, 6-12; Master of Science in Special Education Teaching with endorsements in Adaptive Special Education Pre-K-12; Master of Science in Teaching with an emphasis in Elementary, Secondary, or English for Speakers of Other Languages.

The Specialist in Education Degree major is designed for those who completed a Masters Degree and want to continue their education.

The Specialist in Education Degree major in Advanced Studies and Leadership has three areas of emphasis: General School Administration; Special Education; and Community College Leader.

A fifteen credit hour Autism Certificate is offered in conjunction with the PSU Departments of Psychology and Counseling, Teaching and Leadership, along with Fort Hays State University, and the Kansas State Department of Education.

**UNDERGRADUATE PROGRAMS**

The undergraduate degree programs include a major in Early Childhood/Late Childhood (K-6) leading to the Bachelor of Science in Education degree and, in partnership with the Family and Consumer Sciences department, an undergraduate major in Early Childhood Unified Birth through Third Grade including Special Education leading to the Bachelor of Science in Education degree.

For all candidates preparing to teach at the early childhood, elementary or secondary level, the department provides a sequence of courses in professional education. Included is an entire semester devoted to professional course work, related laboratory experiences, and off-campus student teaching.

**Application for Admission to Teacher Education and Information on Field Experiences**

See [Admission to Teacher Education](#).

**Scholastic Achievement**

For admission to teacher education, the teacher candidate for the Early Childhood/Late Childhood (K-6) major or the Early Childhood Unified (ECU) Birth through Third Grade major must have a 2.80 grade point average on the 33-36 semester hour general education core curriculum.

**Pittsburg State University Internship**

The Pittsburg State University Internship is an optional program for both Early Childhood Unified (ECU) Birth through 3rd Grade and the Early Childhood/Late Childhood (K-6) majors that enable senior level students to participate in a semester long internship prior to the professional semester. Partnerships have been established with local schools to provide placements and support for teacher interns. In order to participate, the teacher intern must be eligible to be admitted to Teacher Education and complete an application requesting permission to serve as an intern. During the internship, the teacher intern is allowed to enroll in one course in addition to the restricted course work for his/her declared major. Mentor teachers must be recommended for participation in the partnership by their building level principal. During the internship semester, participants work eight (8) to ten (10) clock hours per week in a classroom working with their mentor teacher in addition to completing required coursework on campus. Additionally, faculty from Pittsburg State University supervises the interns and works with the mentor teachers. The interns then have the opportunity to conclude their teacher education program with a sixteen-week student teaching experience in the same classroom during the fall or spring semester.
The mission of the partnership between Pittsburg State University and the PK-12 schools is to:

- Continue to improve the quality of education for area PK-12 students by utilizing research-based techniques and teaching strategies;
- Provide pre-service teachers with an authentic experience which effectively utilizes unique elements of a diverse student population and experienced professional staff in area schools;
- Stimulate and encourage the participating PK-12 schools and PSU faculties to develop professionally through continuous collaboration and interaction so that the community of lifelong learners is better prepared to live and work in an ever changing society.

The Professional Semester

All candidates enrolled in the regular academic year who are preparing to teach (early childhood, elementary and secondary) are required to participate in the professional semester.

The professional semester is an entire semester devoted to professional education and related professional laboratory experiences, including supervised teaching. The candidate must plan and expect to devote the full school day, Monday through Friday, to these experiences and additional time to extra-class activities of pupils. During the off-campus period, the candidate is expected to devote full time throughout each week in the cooperating school and community to the same extent as does the teacher on the job. Candidates are not permitted to take additional course work during the professional semester without prior approval.

Application for the professional semester must be made by February 15 for the fall semester and September 15 for the spring semester.

A candidate must have been admitted to teacher education prior to application for the professional semester. At least six hours of resident credit at Pittsburg State University must have been completed before admission to the professional semester. To be admitted to the professional semester, a cumulative grade point average of 2.80 is required and a grade point average of 3.00 in major are required for Early Childhood/Late Childhood K-6 and Early Childhood Unified (ECU) Birth through 3rd Grade majors; 2.50 cumulative grade point average and 2.75 in major is required for secondary/PreK-12 majors.

Eligibility for admission to the professional semester is determined by the criteria for admission to and retention in teacher education as well as specific requirements for the professional semester. (See Teacher Education section of this catalog.)

The full-time professional semester experience is provided in selected schools in the service area of the university and is under the direct supervision of a qualified member of the department staff.

Enrollment in the Early Childhood/Late Childhood (K-6) and Early Childhood Unified (ECU) Birth through 3rd Grade professional semester consists of:

- EDUC 455 Elementary and Middle Level Education
- EDUC 458 Methods and Curriculum
- EDUC 464 Foundations of Measurement and Evaluation
- EDUC 475 Supervised Teaching in the Elementary School or
- EDUC 477 Supervised Teaching in Foreign Languages in the Elementary Schools
- EDUC 476 Supervised Teaching in the Elementary School
- EDUC 579 Supervised Student Teaching and Follow-Up of Teachers

Enrollment in the secondary professional semester consists of:

- EDUC 458 Methods and Curriculum
- EDUC 462 Secondary and Middle Level Education
- EDUC 464 Foundations of Measurement and Evaluation
- EDUC 480 Supervised Teaching in the Secondary School
EDUC 482 Supervised Teaching in the Secondary School

(____) 579 Supervised Student Teaching and Follow-Up of Teachers

If the candidate’s minor requires supervised teaching, EDUC 480 Supervised Teaching in the Secondary School should be included in the minor. Candidates in the secondary professional semester may be assigned to an off-campus middle high school or senior high school according to the specific level at which the student teaching experience is desired. Assignment to a six-year secondary school may also be requested.

For more specific information about the professional semester and procedures for enrolling in it, the student should consult the Director of Teacher Education, Room 110, Hughes Hall.

Requirements for Graduate Study

Graduate students should work closely with their academic advisors to ensure that all degree requirements are met. Each program has particular admission requirements, recommended sequences for certain courses, and other important factors to be considered. Careful examination and review of the catalog information, program guides, and correspondence with the Department of Teaching and Leadership and the Office of Graduate and Continuing Studies is strongly encouraged.

Two options exist for the graduate degrees offered by the department:

a. Thesis Option, referred to as Option I, requires 3-6 thesis hours;

b. Non-Thesis Option, referred to as Option II, requires no thesis hours.

All department graduate programs share three important procedural steps:

1. Application for admission to program through Office of Graduate and Continuing Studies;

2. Application for candidacy through consultation with advisor;

3. Petition for degree through Office of Graduate and Continuing Studies.

Culminating Assessment Requirements

For those in Licensure Programs, a portfolio and/or comprehensive exit exam must be submitted for evaluation. For those in Non-Licensure Programs a comprehensive exit exam is required.

Bachelor of Science in Education Degree with a Major in Early Childhood Unified (ECU) Birth through Third Grade

The Bachelor of Science in Education, Early Childhood Unified Birth through Third Grade, is an inter-disciplinary undergraduate major offered by the Departments of Teaching and Leadership and Family and Consumer Sciences. The ECU program prepares participants for working/teaching in infant-toddler programs, preschool programs, and primary grades in public schools. It leads to eligibility for teaching licensure from the Kansas State Department of Education for both general and special education through grade three. Candidates in this program must meet all requirements of Teacher Education programs.

Majors in the Early Childhood Unified (ECU) Birth through Third Grade devote the greater portion of their work during the first two years of coursework in general education and early childhood coursework/field experiences. The work of the last two years consists of continued academic coursework with greater focus upon special education, early childhood education, and primary grade education and experiences in public school settings. The candidate’s professional education program culminates in the senior year, usually the last semester, with the professional semester, a 17-credit hour block which includes off-campus student teaching in a primary level classroom.

General Education Components

COMM 207, ENGL 101, ENGL 190 OR ENGL 299, MATH 204, BIOL 113 OR BIOL 111 and BIOL 112, PHYS 171 and PHYS 172 OR CHEM 105 and CHEM 106, SOC 100, POLS 101, GEOG 106 OR GEOG 300, PSYCH 155, FCS 203 OR FCS 301 OR HHP 150 OR NURS 303, HIST 101 OR HIST
102 OR HIST 201 OR HIST 202 are general education content core curriculum of 33-36 hours. A 2.80 GPA in this content core is required for admission to Teacher Education.

**Basic Skills (15 hours)**
COMM 207: Speech Communication .......................... 3 
ENGL 101: English Composition ............................... 3 
ENGL 190: Honors English Composition .................... 3 
or ENGL 299: Introduction to Research Writing ............ 3 
MATH 204: Mathematics for Education I .................... 3 
MATH 304: Mathematics for Education II ................... 3 

Must have a “C” or better in each of these Basic Skills courses: COMM 207, ENGL 101, ENGL 190 or ENGL 299, MATH 204.

**General Education Electives (38-41 hours)**

**Sciences (11 hours)**

**Natural Sciences (Select one)**
BIOL 111: General Biology ...................................... 3 
and BIOL 112: General Biology Laboratory ................. 2 
BIOL 113: Environmental Life Science ....................... 4 
and BIOL 114: Environmental Life Science Laboratory for Teachers ............................................. 1 

**Physical Sciences (Select one)**
PHYS 171: Physical Science ....................................... 3 
and PHYS 172: Physical Science Laboratory ................ 1 
and PHYS 114: Physical Science Laboratory for Teachers ......................................................... 2 
CHEM 105: Introductory Chemistry ............................ 3 
and CHEM 106: Introductory Chemistry Laboratory .......................................................... 1 
and PHYS 114: Physical Science Laboratory for Teachers ......................................................... 2 

(PHYS 171 and 172 or CHEM 105 and 106 are prerequisites for PHYS 114).

**Social Studies (3 hours)**
SOC 100: Introduction to Sociology ............................ 3 

**Political Studies (3 hours)**
POLS 101: U.S. Politics ............................................ 3 
The higher course grade of SOC 100 or POLS 101 will be used in calculating the 2.8 content core GPA.

**Producing and Consuming (6 hours)**

**Economy (Select one)**
ECON 191: Issues in Today's Economy ....................... 3 
FCS 230: Consumer Education and Personal Finance ................................................................. 3 

**Technology**
EDTH 330: Technology for the Classroom ................. 3 

**Fine Arts and Aesthetic Studies (2-3 hours)**

- Any Fine Arts course listed for the general education requirements (2-3 hours)

**Cultural Studies (Select one) (3 hours)**
GEOG 106: World Regional Geography ..................... 3 
GEOG 300: Elements of Geography .......................... 3 

**Health and Well Being (4-6 hours)**

**Psychological**
PSYCH 155: General Psychology .............................. 3 

**Physical (Select one)**
FCS 203: Nutrition and Health ............................... 3 
FCS 301: Nutrition ............................... 3 
HHP 150: Lifetime Fitness Concepts ........................ 1 
NURS 303: Introduction to Public Health .................... 3 

**Human Heritage (6 hours)**
History (Select One)
HIST 101: World History to 1500 ........................................ 3
HIST 102: World History from 1500 ............................ 3
HIST 201: American History to 1865 .......................... 3
HIST 202: American History from 1865 .................... 3

Literature (Select One)
ENGL 113: General Literature .................................. 3
ENGL 114: General Literature (Genre) ....................... 3
ENGL 116: General Literature (Theme) .................... 3
Total General Education Components 53-56 hours.

Elementary, Psychology and Lab Experiences
(The following courses must be completed with a 3.00 GPA or higher and no grade lower than a “C” for admission to Professional Semester).

NOTE: EDUC courses may be taken concurrently but not prior to EDUC 261.

I. Education, Psychology, and Laboratory Experiences (59-60 hours)
EDUC 261: Explorations in Education ......................... 3
EDUC 321: Methods in Creative Expression .................. 3
EDUC 322: Early Literacy and Language Development .............................................. 2
EDUC 323: Literature for Young Children Birth-3rd .............................................. 1
EDUC 369: Science and Social Studies Methods K-3 .............................................. 3
EDUC 440: Early Childhood Program Organization and Management .............................................. 3
FCS 390: Interacting with Children .............................................. 3
FCS 391: Practicum in Early Childhood ........................ 1
FCS 392: Infant and Toddler Development .................. 3
FCS 490: Developmental Planning: Preschool and Kindergarten .............................................. 3
FCS 491: Preschool Laboratory ..................................... 1-2
FCS 591: Supervised Teaching in the Early Childhood Lab .............................................. 5
FCS 690: Parent/Professional Relationships .................. 3
PSYCH 263: Developmental Psychology ...................... 3
EDTH 330: Technology for the Classroom .................... 3
SPED 350: Methods, Infants/Toddlers with Disabilities .............................................. 2
SPED 450: Methods, Preschoolers with Disabilities .............................................. 2
SPED 511: Overview of Special Education (Birth thru 6th Grade) .............................................. 3
SPED 560: Assessment of Young Children .................... 3

Admission to Teacher Education is required
EDUC 361: Elementary School Mathematics ................ 3
EDUC 366: Primary Reading and Language Arts with Practicum .............................................. 4
PSYCH 357: Educational Psychology ......................... 3
SPED 550: Methods, Primary Children with Disabilities .............................................. 2

EDTH 330 Technology for the Classroom (satisfied by general education)$ (3 hours)

EDUC 361, EDUC 366, PSYCH 357 and SPED 550 require admission to Teacher Education prior to enrollment.

II. Professional Semester (17 hours)
EDUC 455: Elementary and Middle Level Education .............................................. 2
EDUC 458: Methods and Curriculum .............................................. 3
EDUC 464: Foundations of Measurement and Evaluation .............................................. 2
EDUC 475: Supervised Teaching in the Elementary School .............................................. 3
EDUC 476: Supervised Teaching in the Elementary School .............................................. 5
EDUC 579: Supervised Student Teaching and Follow-Up of Teachers .............................................. 2

EDUC 261, EDUC 321, EDUC 322, EDUC 323, EDUC 440 and EDTH 330 must have completed 45 credit hours and have a 2.50 cumulative GPA to enroll.

SPED 350, SPED 450, SPED 511 and SPED 560 must have completed 60 credit hours and have a 2.50 GPA to enroll.

FCS 591 requires permission of instructor to enroll.

EDUC 440 must have completed 60 credit hours.
Concurrent enrollment recommended (PSYCH 263 and EDUC 261).

FCS 390 and FCS 391 require concurrent enrollment.

FCS 490 and FCS 491 require concurrent enrollment.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University. See Admission to Professional Semester for professional education grade point requirements.

Total hours for Bachelor of Science in Education Degree with a Major in Early Childhood Unified (ECU) (129-133 hours)

Bachelor of Science in Education Degree with a Major in Early Childhood/Late Childhood (K-6, Elementary Education)

Majors in Early Childhood/Late Childhood (K-6) devote the greater portion of their work during the first two years to a broad general education. The work of the last two years consists of continued academic coursework at the upper level and professional courses and experiences. The candidate’s professional education program culminates in the senior year with the professional semester, a 17-hour block which includes off-campus student teaching.

Candidates working toward licensure in Early Childhood/Late Childhood (K-6) who wish to add a second teaching field in middle level education, English for Speakers of Other Languages (ESOL), or special education will find those listings under the heading Second Teaching Fields.

General Education Components

COMM 207, ENGL 101, ENGL 190 or ENGL 299, MATH 204, BIOL 113 OR BIOL 111 and BIOL 112, PHYS 171 and PHYS 172 OR CHEM 105 and CHEM 106, SOC 100, POLS 101, GEG 106 OR GEG 300, PSYCH 155, FCS 203 OR FCS 301 OR HHP 150 OR NURS 303, HIST 101 OR HIST 102 OR HIST 201 OR HIST 202 are general education content core curriculum of 33-36 hours. A 2.80 GPA in this content core is required for admission to Teacher Education.

Basic Skills (15 hours)

COMM 207: Speech Communication ........................................ 3
ENGL 101: English Composition ............................................. 3
ENGL 190: Honors English Composition .................................. 3
or ENGL 299: Introduction to Research Writing ........... 3
MATH 204: Mathematics for Education I .......................... 3
MATH 304: Mathematics for Education II ............................ 3

Must have a “C” or better in each of these Basic Skills courses: COMM 207, ENGL 101, ENGL 190 or ENGL 299, MATH 204.

General Education Electives (39-41)

Sciences (11 hours)

Natural Sciences (Select one)

BIOL 111: General Biology .................................................... 3
and BIOL 112: General Biology Laboratory ............................ 2
BIOL 113: Environmental Life Science ................................. 4
and BIOL 114: Environmental Life Science Laboratory for Teachers .............................. 1

Physical Sciences (Select one)

PHYS 171: Physical Science .................................................. 3
and PHYS 172: Physical Science Laboratory ........................ 1
and PHYS 114: Physical Science Laboratory for Teachers .................................................. 1
CHEM 105: Introductory Chemistry ...................................... 3
and CHEM 106: Introductory Chemistry Laboratory .................. 1
and PHYS 114: Physical Science Laboratory for Teachers .................................................. 2

(Phys 171 and 172 or CHEM 105 and 106 are prerequisites for PHYS 114).
Social Studies (3 hours)
SOC 100: Introduction to Sociology ......................... 3

Political Studies (3 hours)
POLS 101: U.S. Politics .............................................. 3
The higher course grade of SOC 100 or POLS 101 will be
used in calculating the 2.8 content core GPA.

Producing and Consuming (6 hours)

Economy (Select one)
ECON 191: Issues in Today's Economy ...................... 3
FCS 230: Consumer Education and Personal
Finance ........................................................................ 3

Technology
EDTH 330: Technology for the Classroom .................. 3

Fine Arts and Aesthetic Studies (3 hours)
ART 311: Art Education .............................................. 3

Cultural Studies (Select one) (3 hours)
GEOG 106: World Regional Geography ..................... 3
GEOG 300: Elements of Geography .......................... 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology .............................. 3

Physical (Select one)
FCS 203: Nutrition and Health ................................. 3
FCS 301: Nutrition ..................................................... 3
HHP 150: Lifetime Fitness Concepts .......................... 1
NURS 303: Introduction to Public Health ................... 3

Human Heritage (6 hours)

History (Select one)
HIST 101: World History to 1500 ............................... 3
HIST 102: World History from 1500 ......................... 3
HIST 201: American History to 1865 ................................ 3
HIST 202: American History from 1865 .................... 3

Literature (Select one)
ENGL 113: General Literature .................................. 3
ENGL 114: General Literature (Genre) ....................... 3
ENGL 116: General Literature (Theme) ....................... 3

Total General Education Components 54-56 hours.

Elementary, Psychology and Lab Experiences
(The following courses must be completed with a 3.00
GPA or higher and no grade lower than a “C” for
admission to Professional Semester).

NOTE: Must pass/meet Basic Skills requirement by
completion of EDUC 261 or cannot take any other EDUC
courses.

Basic Skills requirements: ACT of 24 or higher or pass
the College Base or PreProfessional Skills Test in
reading, writing, and mathematics.

Must pass Kansas Teaching Licensure tests, PLT and
Elementary Content, prior to Professional Semester.

I. Education, Psychology, and Laboratory Experiences (47-48 hours)

EDUC 252: Children's Literature .................................. 3
EDUC 261: Explorations in Education ......................... 3
EDUC 307: Clinical Experience ................................... 1
EDUC 308: Specialized Clinical Experience ................... 1
EDUC 320: Early Childhood Foundations and
Curriculum ...................................................................... 3
EDUC 362: Elementary School Science ....................... 3
EDUC 366: Primary Reading and Language Arts
with Practicum .............................................................. 4
EDUC 551: Diversity in the Classroom ......................... 3
HHP 341: Elementary School Physical Education
and Health ................................................................. 3
MUSIC 140: Children's Music ....................................... 3
PSYCH 263: Developmental Psychology .................... 3
PSYCH 357: Educational Psychology ......................... 3
EDTH 330: Technology for the Classroom .................. 3
SPED 510: Overview of Special Education .................. 3
or SPED 511: Overview of Special Education
(Birth thru 6th Grade) .................................................. 3
Next four courses require prior Admission to Teacher Education
EDUC 361: Elementary School Mathematics .................. 3
EDUC 363: Elementary School Social Studies .................. 3
EDUC 367: Intermediate Reading and Language Arts with Practicum ............................................. 4
EDUC 368: Effective Classroom Management ................. 2

EDTH 330 Technology for the Classroom (satisfied by general education) (3 hours)

II. Professional Semester (17 hours)
EDUC 455: Elementary and Middle Level Education ................................................................. 2
EDUC 458: Methods and Curriculum .................................. 3
EDUC 464: Foundations of Measurement and Evaluation ........................................................... 2
EDUC 475: Supervised Teaching in the Elementary School .................................................................. 3

or EDUC 477: Supervised Teaching in Foreign Languages in the Elementary Schools .................. 3
EDUC 476: Supervised Teaching in the Elementary School ............................................................. 5
EDUC 579: Supervised Student Teaching and Follow-Up of Teachers .......................................... 2

III. Electives (1-7 hours)

Total hours for Bachelor of Science in Education- Early Childhood/Late Childhood (K-6, Elementary Education) (125 hours)

Concurrent enrollment recommended (PSYCH 263 and EDUC 261).

EDUC 361, EDUC 363, EDUC 367 and EDUC 368 require admission to Teacher Education.

EDUC 362 and EDUC 366 must have already earned 60 hours to enroll.

EDUC 308 requires permission of instructor.

EDUC 366 is a prerequisite for EDUC 367.

EDUC 261, EDUC 307 and EDUC 308 require an additional 33 hours of field experience outside the class.

EDUC 366 Primary Reading and Language Arts with Practicum is a prerequisite for EDUC 368.

Fields of Concentration
Fields of Concentration which are shown below can be satisfied by completing the elementary education program.

A 2.0 GPA is required in each area of concentration.

Field of English, Speech, and Literature (15 hours)
COMM 207: Speech Communication ................................. 3
EDUC 252: Children's Literature ...................................... 3
ENGL 101: English Composition ...................................... 3
ENGL 190: Honors English Composition .......................... 3
or ENGL 299: Introduction to Research Writing ............... 3

- A literature requirement (3 hours)

Field of History and Social Science (15 hours)
One course from each of the following:

- Economics (3 hours)
- Geography (3 hours)
- History (3 hours)
- Political Science (3 hours)
- Sociology (3 hours)

Field of Science and Mathematics (16 hours)

- A biological science lecture (3 hours)
- A biological science lab (1 hour)
- A biological science lab for teachers (1 hour)
- A physical science lecture (3 hours)
- A physical science lab (1 hour)
- A physical science lab for teachers (1 hour)
- Six (6) hours of mathematics courses approved by advisor

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information
Second Teaching Fields Middle Level Education

A second teaching field in middle level education is available to candidates seeking a Bachelor of Science in Education degree with a major in Early Childhood/Late Childhood (K-6) or a major in a teaching field at the secondary level. These courses, along with a passing score on the Praxis Content Test, meet the requirements to teach middle level students in Mathematics, English Language Arts, Science or History Comprehensive. For additional information, contact the chairperson of the Department of Biology, Chemistry, English, History, Philosophy and Social Sciences, Mathematics or Physics.

Pre K-12 Licensure in French and Spanish for the Pre K-12 Teacher

See Modern Languages and Literatures Department for specific course requirements.

Professional Education Requirements (34 hours)

EDUC 261: Explorations in Education .................................. 3
EDUC 307: Clinical Experience ........................................... 1
EDUC 308: Specialized Clinical Experience .......................... 1
EDUC 511: Methods and Materials in Middle Level Education ...................................................... 3
EDUC 520: Methods and Materials for Academic Literacy ................................................................. 3
PSYCH 263: Developmental Psychology ................................ 3
PSYCH 357: Educational Psychology .................................... 3

Professional Semester

EDUC 455: Elementary and Middle Level Education .......................................................... 2
or EDUC 462: Secondary and Middle Level Education ........................................................... 2
EDUC 458: Methods and Curriculum .................................................. 3
EDUC 464: Foundations of Measurement and Evaluation ............................................................... 2
EDUC 476: Supervised Teaching in the Elementary School ......................................................... 5
or EDUC 480: Supervised Teaching in the Secondary School .................................................... 3
EDUC 482: Supervised Teaching in the Secondary School ....................................................... 5
EDUC 579: Supervised Student Teaching and Follow-Up of Teachers ........................................ 2

Concurrent enrollment recommended (PSYCH 263 and EDUC 261).

Candidates adding a second teaching field would select one of the following areas of coursework.

Courses for English (Middle Level Grades 5-8) (34 hours)

ENGL 202: English Grammar and Usage ................................ 3
ENGL 220: World Masterpieces ........................................... 3
ENGL 230: American Literature ........................................... 3
ENGL 241: British Literature I .............................................. 3
ENGL 242: British Literature II ............................................ 3
ENGL 302: Advanced Composition ........................................ 3
ENGL 304: Introduction to Writing About Literature ................................................................. 3
ENGL 308: English Linguistics ............................................. 3
ENGL 478: Literature for Middle and Secondary Schools ......................................................... 3
ENGL 479: Techniques for Teaching English in Middle and Secondary Schools .......................... 3
ENGL 480: Internship ......................................................... 1
ENGL 603: History of the English Language ................................ 3

Courses for Mathematics (Middle Level Grades 5-8) (26 hours)

MATH 126: Pre-Calculus ................................................... 4
MATH 143: Elementary Statistics ........................................ 3
MATH 304: Mathematics for Education II ............................ 3
MATH 307: Geometry for Education .................................... 3
MATH 407: Cultural Mathematics ....................................... 1
MATH 471: Manipulatives for Teaching Mathematics .......... 1
MATH 472: Calculators in Teaching Mathematics ............ 1
MATH 473: Mathematical Software ................................. 1
MATH 479: Techniques for Teaching Mathematics ................................................................. 1-3
MATH 503: Introduction to Advanced Mathematical Concepts for Education .................. 3

- A computer programming course which will also satisfy the General Education computing requirement (3 hours)

Courses for History Comprehensive (Middle Level Grades 5-8) (42 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 101</td>
<td>World History to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 102</td>
<td>World History from 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 201</td>
<td>American History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 202</td>
<td>American History from 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 479</td>
<td>Techniques for Teaching Middle and Secondary Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>HIST 619</td>
<td>Kansas and the West</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose three from the following six courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 540</td>
<td>English History to 1660</td>
<td>3</td>
</tr>
<tr>
<td>HIST 546</td>
<td>The Age of Empire</td>
<td>3</td>
</tr>
<tr>
<td>HIST 605</td>
<td>Africa and the Middle East</td>
<td>3</td>
</tr>
<tr>
<td>HIST 650</td>
<td>Colonial America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 656</td>
<td>Sectional Conflict and Civil War</td>
<td>3</td>
</tr>
<tr>
<td>HIST 665</td>
<td>Modern America Since 1968</td>
<td>3</td>
</tr>
<tr>
<td>ECON 191</td>
<td>Issues in Today's Economy</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 106</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 300</td>
<td>Elements of Geography</td>
<td>3</td>
</tr>
<tr>
<td>POLS 101</td>
<td>U.S. Politics</td>
<td>3</td>
</tr>
<tr>
<td>SOC 100</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

ECON 191, GEOG 106, POLS 101 and SOC 100 are accepted for General Education Hours and Program Hours

Admission to Teacher Education is required prior to enrollment in HIST 479.

*The History, Philosophy and Social Sciences Department Chair may approve appropriate content substitutions for history electives.

Courses for Science (Middle Level Grades 5-8) (26 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 111</td>
<td>General Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 112</td>
<td>General Biology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 479</td>
<td>Techniques for Teaching Biology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 105</td>
<td>Introductory Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 106</td>
<td>Introductory Chemistry Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 160</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 165</td>
<td>Physical Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 166</td>
<td>Meteorology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 171</td>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 172</td>
<td>Physical Science Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 175</td>
<td>Descriptive Astronomy</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor in English for Speakers of Other Languages

A minor in English for Speakers of Other Languages is available for education majors. Successful completion of the 18-hour minor results in a Pre-K-12 endorsement to the teaching license. Candidates do not need to be proficient in a second language.

Courses for English for Speakers of Other Languages Minor (18 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 551</td>
<td>Diversity in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 552</td>
<td>Culture and Language Acquisition for English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 553</td>
<td>Assessment and the English Language Learner</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 554</td>
<td>Methods and Instructional Materials for English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 555</td>
<td>Practicum with English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>English Linguistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Prerequisites or co-requisites for EDUC 555 are EDUC 551, 552, 553, 554, and ENGL 308.

Minor in Inclusive Education

This minor will provide the Bachelor of Science in Education major (elementary or secondary) with additional preparation for serving the needs of all
students in the general education classroom and assist candidates in deciding if they want to pursue a career or Master of Science in Special Education. This minor does not lead to a provisional certification in Special Education, but could result in a district waiver for Special Education.

**Required Courses (18 hours)**

SPED 510: Overview of Special Education .................. 3
or SPED 511: Overview of Special Education (Birth thru 6th Grade) .................................................. 3
SPED 512: Characteristics of Students in Inclusive Settings ................................................................. 3
SPED 513: Instructional Approaches for the Inclusive Classroom .................................................. 3
SPED 514: Professional Collaboration in Inclusive Settings ........................................................................ 3
SPED 515: Positive Behavior Support in Inclusive Settings ..................................................................... 3
EDUC 551: Diversity in the Classroom ......................... 3

SPED 510/511 is a pre-requisite for SPED 512, 513, 514, and 515.

SPED 512 and SPED 513 are pre-requisites for SPED 514.

SPED 514 includes 50 hours of clinical experience.

**Minor in International Teaching (Non Licensure)**

**Core Courses**

EDUC 308: Specialized Clinical Experience ................ 1
EDUC 551: Diversity in the Classroom ......................... 3
EDUC 553: Assessment and the English Language Learner ................................................................. 3
EDUC 554: Methods and Instructional Materials for English Language Learners ............................. 3
COMM 601: Intercultural Communication .................. 3
*or* equivalent course approved by advisor

**Electives**

- Any of the language and/or literature courses offered by the Department of Modern Languages and Literatures (5 hours)

Total hours required for International Teaching Minor (18 hours).

**Minor in Special Education**

A minor in Special Education is available to students seeking a Bachelor of Science in Education degree. The courses taken as part of the minor will provide students with a provisional special education endorsement in conjunction with the completion of their BSED.

**Special Notes**

1. 60 hours with a 2.50 GPA, must be completed before enrolling in SPED 510 Overview of Special Education or SPED 511 Overview of Special Education (Birth through 6th Grade).

2. Student must be admitted to teacher education program before taking SPED 738 Characteristics of Students with Adaptive Learning Needs.

3. SPED 738 Characteristics of Students with Adaptive Learning Needs is a pre-requisite for all other education courses with the exception it may be taken concurrently with SPED 744 Special Education Technology.

**Required Courses for all Special Education Minors**

SPED 510: Overview of Special Education .................. 3
SPED 738: Characteristics of Students with Adaptive Learning Needs .................................................. 3
SPED 744: Special Education Technology .......................... 3
SPED 745: Behavior Analysis and Management .......................... 3
SPED 750: Assessment in Special Education .................. 3

**Additional Required Courses in Special Education Minor**

Choose between Elementary and Secondary
Elementary
SPED 761: Practicum I: Adaptive Learning Needs 3
SPED 779: Teaching Elementary Students with Adaptive Learning Needs 3

Secondary
SPED 761: Practicum I: Adaptive Learning Needs 3
SPED 780: Teaching Secondary Students with Adaptive Learning Needs 3

Minor in Leadership Studies

Required Courses (6 hours)
LDSP 600: Foundations of Leadership 3
LDSP 601: Service Learning Seminar 1
LDSP 602: Leadership Seminar 2

Additional leadership courses chosen from:
(15 hours)
COMM 450: Small Group Communication 3
COMM 601: Intercultural Communication 3
JUST 322: Ethics and Justice Policy 3
MGMKT 327: Organizational Theory and Behavior 3
MGMKT 628: Advanced Organizational Behavior 3
MIL 100: Military Science I 1
PHIL 105: Ethics 3
POLS 301: State and Local Government and Politics 3
PSYCH 275: Psychology of Adjustment 3
PSYCH 575: Industrial and Organizational Psychology 3
PSYCH 616: Introduction to Group Processes 3
REC 311: Recreation Program Design and Leadership 3
SOC 360: Community Sociology 3
SOC 443: Race and Ethnic Relations 3
TM 679: Presentation Skills 3
TTED 606: Industrial Supervision 3

- Electives by approval of Leadership Studies Minor Advisor (3 hours)

Minor in Special Education for Students Majoring in Family and Consumer Sciences- Early Childhood Emphasis
This minor will be available to students seeking a Bachelor of Science in Family and Consumer Sciences with an Early Childhood Emphasis. This minor by itself will not result in any kind of special education endorsement through the Kansas State Department of Education.

Students who complete the coursework for this minor will be better prepared to work with young children with disabilities in Head Start, child care, and community preschool settings. This reflects a growing trend in which young children with disabilities are more fully included in all types of community settings.

Required Courses (18 hours)
SPED 350: Methods, Infants/Toddlers with Disabilities 2
SPED 351: Field Experience: Infants and Toddlers with Disabilities 1
SPED 450: Methods, Preschoolers with Disabilities 2
SPED 451: Field Experience: Preschoolers with Disabilities 1
SPED 511: Overview of Special Education (Birth thru 6th Grade) 3
SPED 560: Assessment of Young Children 3
FCS 590: Development of the Child: Birth Through Age Eight 3
SPED 744: Special Education Technology 3

Minor in Technological Literacy
The minor in Technological Literacy is available to all appropriate majors. The course combines Educational Technology courses with Technology Education courses to provide a comprehensive approach to the practical use and implementation of computer skills, design and problem solving skills and teaming concepts into real world practices and experiences.
Required Courses (20 hours)
EDTH 330: Technology for the Classroom .........................3
TE 331: Overview of Technology ....................................3
EDTH 551: Instructional Technology for Educators
.........................................................................................3
TE 551: Integrated Technology for Educators ..................3
EDTH 732: Topics in Educational Technology
(____) .................................................................................1-3
TE 753: Special Topics in Technology Education
(____) .................................................................................1-3

Minor in Urban and Suburban Experience
(Non Licensure)

Core Courses (9 hours)
EDUC 308: Specialized Clinical Experience .....................1
EDUC 368: Effective Classroom Management ..................2
EDUC 551: Diversity in the Classroom ............................3
EDUC 554: Methods and Instructional Materials
for English Language Learners .....................................3

Electives: (Choose one course from each section) (9 hours)

Social and Cultural
PHIL 231: World Religions ..............................................3
GEOG 301: Introduction to Urban Geography .................3
SOC 360: Community Sociology ....................................3
PSYCH 456: Introduction to Social Psychology ...............3
COMM 601: Intercultural Communication .......................3

Family
FCS 480: Dynamics of Family Relationships ..................3
FCS 580: Family Violence and Child Abuse ....................3
SWK 340: Social Work with Families and Children ..........3
SOC 536: The Family and Society ..................................3
FCS 690: Parent/Professional Relationships ....................3

Race and Ethnicity
SWK 375: Multiculturalism and Diversity in Social
Work Practice .................................................................3
SOC 440: Personality and Social Structure .....................3
SOC 443: Race and Ethnic Relations .............................3
SOC 512: Social Stratification ........................................3

Total hours required for the Minor in Urban and Suburban Experience (18 hours).

Master of Arts Degree with a Major in Teaching (Secondary Teaching Licensure Program)
The Master of Arts in Teaching (Secondary Teaching) is a program for individuals holding a BS or BA degree in a non-teaching content area and who are seeking licensure to teach in a 6-12 school setting. The purpose of the program is to train teachers for positions in high need content areas in both urban and rural schools.

Admission Requirements:
(1) Review of transcripts verifying applicant’s earned degree in content area or completion of coursework equivalent to requirements for PSU approved teacher education programs;
(2) Required documents to be considered for admission to the MAT program: two letters of recommendation and a writing sample;
(3) Professional disposition and a sample teaching lesson evaluated by the MAT Admission Review Committee;
(4) Applicant must be then recommended by the MAT Committee for Admission and Retention in Teacher Education;
(5) Passing score on a basic skills test (reading, writing, and math) or an ACT of 24 or above;
(6) In-major GPA of 2.75 or higher and cumulative GPA of 3.00 or higher.
(7) Passing score on the appropriate Content Area test.

Mid-Point Review
(1) At mid-point the overall GPA will be reviewed. A 3.00 is required.

Culminating Event
Successful completion of the Teacher Work Sample and Portfolio.
Passing score on the Principles of Learning and Teaching Test.

Curriculum for Master of Arts in Teaching (Secondary Teaching): 36 hour program

Core Curriculum

A. Professional Characteristics (three semester hours)
TCHL 825: The Professional Semester Teacher - Initial Experience .........................................................3

B. Instructional Planning (nine semester hours)
READ 720: Content Literacy for Middle and Secondary Teachers .............................................................3
TCHL 850: Current Teaching Practices .................................................3
TCHL 851: Multicultural Approaches to Diversity in the Classroom .................................................................3

C. Management of Educational Environment (six semester hours)
PSYCH 810: Advanced Educational Psychology .................3
TCHL 836: Positive Classroom Management .........................3

D. Evaluation and Assessment (three semester hours)
TCHL 878: Assessment for Effective Teaching .........................3

E. Research and Inquiry (three semester hours)
TCHL 849: The Professional Semester Teacher - Culminating Experience ..........................................................3

Option III: Area of Concentration:

Instructional Skills (12 semester hours)
SPED 815: Individuals with Exceptionalities .....................3
TCHL 839: Techniques for Teaching Secondary ..................3
TCHL 843: Trends and Issues .................................................3
TCHL 879: Instructional Planning and Delivery ..................3

Master of Arts Degree with a Major in Teaching (Special Education Licensure Program)
The Master of Arts in Teaching (Special Education) is a program for innovative Special Education para-educators holding a BS or BA degree in a non-teaching content area and who are seeking licensure to teach in a secondary setting. The purpose of this program is to train teachers for positions in high need content areas in both urban and rural schools. Students must remain employed as a para-educator for the duration of the program.

Admission Requirements:

(1) Undergraduate degree; 3.00 GPA or admitted with condition;

(2) At least one year experience as a para-educator in a special education classroom;

(3) Current employment as a para-educator.

Application Procedures:

1. Transcript is audited by Pittsburg State University licensure officer. Send transcript to Teacher Education Office, 110 Hughes Hall, 1701 South Broadway, Pittsburg, KS 66762 or fax to 620-235-4421.

2. Candidate will complete a Professional Disposition Assessment (transcript must be audited prior to assessment).

3. Candidate must provide a letter of recommendation from district superintendent, director of special education or supervisor that includes verification of at least one year of experience with special education students.

4. Once admitted, candidate is assigned an advisor.

5. By end of 1st semester, candidate must pass a basic skills test or have an ACT of 24 or higher.

Mid-Point Review

At mid-point the overall GPA will be reviewed. A 3.00 is required.
Culminating Event

Successful completion of the Teacher Work Sample and Portfolio.

Passing score on the Principles of Learning and Teaching.

Passing score on the Special Education Content Test.

Curriculum for Master of Arts in Teaching (Special Education): 36 hour program

SPED 738: Characteristics of Students with Adaptive Learning Needs ........................................3
SPED 744: Special Education Technology ........................................3
SPED 745: Behavior Analysis and Management ..............3
SPED 750: Assessment in Special Education ......................3
SPED 761: Practicum I: Adaptive Learning Needs ........3
SPED 780: Teaching Secondary Students with Adaptive Learning Needs ........................................3
SPED 849: Partnerships with Families of Exceptional Children and Youth .................................3
SPED 861: The Professional Special Educator ..................3
PSYCH 810: Advanced Educational Psychology ...........3
TCHL 825: The Professional Semester Teacher - Initial Experience ........................................3
TCHL 839: Techniques for Teaching Secondary ............3
READ 870: Developmental Reading Instruction ............3

Master of Science Degree with a Major in Educational Leadership

Licensure/Non-Licensure Programs

The Department of Teaching and Leadership is responsible for the preparation of school superintendents, secondary school principals, middle school principals, elementary school principals, and associated administrative and supervisory personnel.

Programs for the preparation of administrators, and supervisors, may lead to the Master of Science and/or Specialist in Education degrees and licensure for the respective positions.

Experiences will be provided for educators who will be in leadership roles for such activities as chapter/title programs, school/district curriculum projects and leadership duties in other human services professions.

These experiences may involve one or more of the following five interrelated areas: measurement, evaluation, statistical analyses, computer usage and research design.

Admission to Programs in Educational Leadership

Students beginning a program of preparation for educational leadership must meet requirements beyond those for general admission to graduate study in the university and for other majors in the College of Education. Criteria for admission include a combination of characteristics considered to be related to and predictive of success in a program of preparation and in a position in the field.

All applicants to programs of preparation for the Master’s degree in building level licensure must meet the following criteria.

Admissions Criteria

The admissions criteria for the Master’s Degree in Educational Leadership includes the following:

1. The student will have a history of assuming leadership roles in a variety of settings.
2. The student will demonstrate effective writing skills.
3. The student will demonstrate the ability to work collaboratively with others.
4. The student will show a commitment to assuming leadership roles within organizations.
5. The student will demonstrate a history of meeting deadlines and satisfactorily accomplishing major tasks.
6. The student will have a GPA of at least 3.00 for one of the following:
   a. The last two years of undergraduate work for those students who have only an undergraduate degree and less than nine hours of graduate work.
   b. Nine hours or more of current graduate credit courses.
   c. A completed graduate degree.
Admissions Process

All students who first apply to the Educational Leadership Master's Program will be **conditionally** admitted as long as they show evidence that they completed or will complete at the end of the semester an earned bachelor's degree from an accredited institution of higher learning.

After completion of 12 graduate hours in the program, the student will submit a leadership portfolio that the Educational Leadership faculty will review to decide on **full** admittance to the Master's Program.

The Educational Leadership Admission Committee will meet three times during the year to decide whether or not to fully admit students to the program. During the review of student portfolios, faculty will use an established rubric to judge a student's potential for success in the program. These Admissions Meetings will occur on or around October 15, March 15 and July 1.

The course requirements of LDSP 800 will include the creation of this leadership portfolio. If a student does not take LDSP 800 as one of the first nine hours, the student will individually compile the leadership portfolio along with a written statement justification for not including LDSP 800 as one of their first nine hours in the program. One member of the Educational Leadership faculty will take responsibility for helping them compile the required portfolio.

The leadership portfolio will include the following:

a. An application for admission to Graduate School.

b. Official transcripts from all colleges and universities attended by the student.

c. Two letters of recommendation from supervisors and/or professional peers; one must attest, with concrete examples, to the student's potential as an educational leader.

d. A resume of educational and professional experiences.

e. A copy of current licensure (if wanting to pursue building level licensure).

f. A written statement of the student's professional goals.

g. A written leadership autobiography describing the leadership roles the student has assumed during his/her adult life.

h. Work samples prepared individually by the student from each of four courses (1st 12 hours completed).

i. Documentation of the student’s ability to work collaboratively.

j. Documentation of the student’s history of meeting deadlines and satisfactorily accomplishing major tasks.

Admissions Criteria and Process for Those Seeking Building Licensure Only

Students who wish only to take courses required for building licensure and not receive a degree must also meet the same admissions criteria detailed above if they wish for Pittsburg State University to recommend them for licensure to the appropriate state department of education. They must prepare a portfolio and submit it for review by the Educational Leadership Admission Committee at one of its triennial meetings.

Procedural Steps for Master's Degree

1. Apply for and be admitted **conditionally** to the Master's in Educational Leadership program through the Office of Graduate and Continuing Studies;

2. After the completion of 12 graduate hours, compile Leadership Portfolio and submit to the Educational Leadership Admissions Committee;

3. Be fully admitted to Master's in Educational Leadership program;

4. Apply for candidacy in conference with advisor;

5. Petition the Graduate and Continuing Studies Office to graduate.

Program Objectives:

The master's degree program in educational leadership requires a minimum of 36 hours and is designed to prepare licensed leaders to assume school
principalships and non-licensed leaders to assume leadership roles in school and other settings. All department requirements must be completed prior to admission to candidacy. For the Master of Science degree with a major in Educational Leadership, the following requirements must be met:

**Required core (21 hours)**
LDSP 800: Educational Leadership I ........................................3
LDSP 801: Educational Leadership II ........................................3
LDSP 809: Legal Foundations of Public Education ........3
TCHL 834: Curriculum Development ........................................3
LDSP 888: Foundations of Education ........................................3
LDSP 894: Practicum in Educational Leadership II - Building Level Administration ........................................3

**Research Options (3-9 hours)**

**Option I (Thesis Program)**
: Research and Thesis .................................................................
: Methods of Research .................................................................

**Option II (Non-Thesis Program)**
: Methods of Research .................................................................

Choose ONE Area of Emphasis

**Building Level Leader (Licensure) (12 hours)**
LDSP 847: The Principalship ........................................3
LDSP 855: Administration and Supervision of Special Education ........................................3
LDSP 863: Supervision of Instruction ........................................3

**Building Level Curriculum Course**
LDSP 835: Elementary and Middle School Curriculum ........................................3
or LDSP 836: Secondary School Curriculum ........................................3

**Educational Leader (Non-Licensure) (12 hours)**
TCHL 843: Trends and Issues ........................................3

- Electives by advisement (9 hours)

Note: Students interested in the non-licensure emphasis but who work in a school setting are strongly encouraged to take LDSP 855 Administration and Supervision of Special Education.

**Master of Science Degree with a Major in Educational Technology**
The Master of Science degree with a major in Educational Technology is designed to prepare the student to work with educational technology in educational settings. Two curricular emphases are offered within the degree: (1) Technology Integration Specialist and (2) Library Media Specialist. Candidates who select the technology integration specialist emphasis prepare to lead in the design, development, and management of instructional materials through the use of educational technologies. Candidates who select the library media emphasis prepare to lead in the design, development, and direction of library media centers in elementary, middle and/or secondary schools. Recommendation for licensure as a school library media specialist is an expected end result. This program is delivered entirely online.

**Note for Library Media Licensure only:**
The student must provide evidence that he/she has a valid teaching license to be accepted into the Educational Technology Program. A valid professional teaching license must be held to add the library media endorsement.

**Procedural Steps for Master's Degree:**

1. The student must apply for and be admitted to a degree program through the Office of Graduate and Continuing Studies.

2. The student must fulfill the entrance requirements for the Educational Technology program as directed by the advisor.

3. The student must apply for candidacy in conference with the advisor.

4. The student must petition the Graduate and Continuing Studies office to graduate. All official transcripts from other institutions must be on file in the
Graduate and Continuing Studies office. The advisor must have unofficial copies of the same transcripts.

5. The student must maintain an overall GPA of 3.00 or above for course work.

6. The candidate must satisfactorily pass the e-portfolio at the end of the program.

Admission Criteria

1. The student must apply for the degree program through the Office of Graduate and Continuing Studies.
2. Students must provide a copy of valid teaching license,
3. Students must have a 3.0 undergraduate GPA.
4. Students must have an official undergraduate transcript posted.

Mid-Point Check

1. Students must maintain a 3.0 GPA during first 9 hours of coursework.

Culminating Event

1. Student must successful complete an e-portfolio.
2. Students in the Library Media Program must successfully pass the licensure examination.

Required core (24 hours)
EDTH 731: Digital Portfolio .............................................. 1
EDTH 733: Professional Development .............................. 1
EDTH 734: Infrastructure Networking ............................. 1
EDTH 735: Information Retrieval and Transfer .............. 3
EDTH 805: Design and Production of Instructional Materials ................................................................. 3
EDTH 819: Practicum in Educational Technology .... 1-6
EDTH 825: Administration of Instructional Systems ................................................................. 3
TCHL 834: Curriculum Development ............................. 3
EDTH 838: Educational Technology Curriculum ............ 3
EDTH 868: Educational Technology Applications .......... 3

Research Options (3-9 hours)

Option I (Thesis Program)
: Research and Thesis .....................................................
: Methods of Research ..................................................

Option II (Non-Thesis Program)
: Methods of Research ..................................................

Choose ONE Area of Emphasis

Technology Integration Specialist (9 hours)
EDTH 732: Topics in Educational Technology .......... 1-3
EDTH 817: Technology Integration Specialist .......... 3
EDTH 818: Trends and Issues in Educational Technology ................................................................. 3

School Library Media Licensure (9 hours)
EDTH 737: Cataloging and Classification .................... 3
READ 834: Advanced Children's and Young Adult Literature ................................................................. 3
- Electives (3 hours)

All required core courses as well as EDTH 737 and READ 834 are courses for licensure as a Library Media Specialist.

Master of Science Degree with a Major in Reading with Emphases in Reading Specialist Licensure or Classroom Reading Teacher

The Master of Science in Reading is offered with two emphases. Emphasis I provides Reading Specialist Licensure and is designed for the teacher seeking Reading Licensure. Emphasis I requires the Master’s Degree plus a yearlong district-administered mentoring program after the completion of the degree. The courses required for licensure are READ 720, READ 834, READ 845, READ 848, READ 870, READ 871, READ 872, READ 873, READ 874, TCHL 854, TCHL 891 and SPED 738. Emphasis II (Classroom Reading Teacher) is designed for the teacher who wishes to be a better classroom teacher of reading but does not wish to seek licensure. The courses required are READ 870, READ 871, READ 872 and READ 873 with 9 additional reading
or reading related hours selected in consultation with the advisor.

Candidates may choose from two different plans when pursuing their master’s degree, Option I or Option III, both of which are described fully Graduate Degrees and Options of the University Catalog. Option I requires 39 hours for Reading Specialist, and 33 hours for Classroom Reading Teacher, including a thesis; Option III requires 39 hours for Reading Specialist, and 36 hours for Classroom Reading Teacher, no thesis required. Candidates should read the information and then consult with their advisor about which plan to follow.

Admission Requirements

Candidates seeking admission to the Master of Science in Reading degree program must meet requirements for teaching licensure. Candidates must obtain a grade point average of 3.00 in the undergraduate major field, including the student teaching semester. Conditional entry will be given if the grade point average in the undergraduate major field is below a 3.00. A grade point average of 3.00 must be attained within the first nine hours of coursework to gain full admission. Candidates must also submit a writing sample for evaluation using a topic aligned with the Reading Graduate Knowledge Base.

Candidates in teaching positions must submit two letters of recommendation from a PK-12 administrator, peer teacher, and/or university professor. Candidates not in teaching positions must submit two letters of recommendation from university professors.

Mid-Point Assessment Requirements

At mid-point the overall GPA will be reviewed. A 3.00 is required.

Culminating Assessment Requirements

For those in Licensure Programs, a portfolio must be submitted for evaluation. For those in Non-Licensure Programs a comprehensive exit exam is required.

Reading Specialist Licensure Emphasis

I. Courses to be taken to meet departmental general requirements:
   (Option I- 15 hours, Option III- 1

A. Research

Option I
TCHL 890: Research and Thesis ............................................. 3-6
TCHL 891: Methods of Research ............................................. 3

Option III
TCHL 891: Methods of Research ............................................. 3

B. Understanding The Individual
Option I and Option III (6 hours)
SPED 738: Characteristics of Students with Adaptive Learning Needs ............................................. 3
TCHL 854: Advanced Methods and Instructional Materials for English Language Learners ............................................. 3

C. Understanding the School

Option I
READ 874: Apprenticeship in Reading ............................................. 3

This must be the last course taken toward conditional licensure.

Option III
READ 874: Apprenticeship in Reading ............................................. 3

Choose one course from the following
TCHL 843: Trends and Issues ............................................. 3
TCHL 850: Current Teaching Practices ............................................. 3
READ 869: Literacy Topics and Trends ............................................. 3
LDSP 835: Elementary and Middle School Curriculum ............................................. 3
LDSP 888: Foundations of Education ............................................. 3

This must be the last course taken toward conditional licensure.
II. Courses in Reading: (Option I and Option III - 24 hours required)

READ 720: Content Literacy for Middle and Secondary Teachers .................................................. 3
READ 834: Advanced Children's and Young Adult Literature ......................................................... 3
READ 845: Approaches to Teaching Writing ................................................................. 3
READ 848: Advanced Language Arts ................................................................. 3
READ 870: Developmental Reading Instruction ................................................................. 3
READ 871: Diagnosis of Reading Difficulties ................................................................. 3
READ 872: Methods and Materials in Remedial Reading ......................................................... 3
READ 873: Practicum in the Diagnosis and Remediation of Reading Difficulties ......................... 3

Courses must be taken in this order: READ 870, READ 871, READ 872 and READ 873. (READ 871 and READ 872 may be taken concurrently.) (READ 872 and READ 873 may be taken concurrently.)

Classroom Reading Teacher Emphasis

I. Courses to be taken to meet departmental general requirements:
(Option I- 15 hours, Option III- 1

A. Research

Option I
TCHL 890: Research and Thesis ........................................ 3-6
TCHL 891: Methods of Research ........................................ 3

Option III
TCHL 891: Methods of Research ........................................ 3

B. Understanding The Individual

Choose from the following:

SPED 738: Characteristics of Students with Adaptive Learning Needs ........................................ 3
PSYCH 810: Advanced Educational Psychology ........................................ 3
TCHL 852: Advanced Culture and Language Acquisition for English Language Learners ................. 3

II. Courses in Reading

Option I

TCHL 854: Advanced Methods and Instructional Materials for English Language Learners .................. 3
PSYCH 859: Advanced Developmental Psychology ........................................ 3

C. Understanding the School

Option I (3 hours)

Option III (6 hours)

Choose from the following

Option I

TCHL 843: Trends and Issues ................................................................. 3
TCHL 850: Current Teaching Practices ................................................................. 3
READ 869: Literacy Topics and Trends ................................................................. 3
LDSP 888: Foundations of Education ................................................................. 3

II. Courses in Reading

Option I- 18 semester hours required

Select from the following courses

READ 720: Content Literacy for Middle and Secondary Teachers .................................................. 3
TCHL 806: Special Investigations (____) .................................................. 1-3
READ 834: Advanced Children's and Young Adult Literature ......................................................... 3
READ 845: Approaches to Teaching Writing ................................................................. 3
READ 848: Advanced Language Arts ................................................................. 3
READ 870: Developmental Reading Instruction ................................................................. 3
READ 871: Diagnosis of Reading Difficulties ................................................................. 3
READ 872: Methods and Materials in Remedial Reading ......................................................... 3
READ 873: Practicum in the Diagnosis and Remediation of Reading Difficulties ......................... 3

READ 870, READ 871, READ 872 are pre-requisites for READ 873 (these four courses are required for the program).
Master of Science Degree with a Major in Special Education Teaching

A program leading to the Master of Science degree with a major in special education teaching is available. Two curricular emphases are offered within the degree: (1) Adaptive/Functional Special Education K-6, 6-12; and (2) Adaptive Special Education Pre K-12.

Special Notes for Adaptive/Functional Special Education K-6, 6-12

1. The requirements for a general education license must be met before any special education endorsement can be granted.
2. One practicum will be at the elementary level. The other will be completed at the secondary level.
3. There is no provisional endorsement at the functional level.
4. Characteristics courses (SPED 738 & SPED 852) are prerequisites for methods courses at their respective levels (SPED 779, SPED 780, and SPED 853).
5. Special Education Praxis exams are required for full endorsement.

Special Notes for Adaptive Special Education Pre K-12

1. The requirements for a general education license must be met before any special education endorsement can be granted.
2. One practicum each will be completed at the Pre-K, elementary, and secondary level.
3. SPED 738 Characteristics of Students with Adaptive Learning Needs is a prerequisite for methods courses (SPED 779, SPED 780 and SPED 876).
4. Special education Praxis exams are required at the time of application for full endorsement.

Procedural Steps for Master’s degree:

1. The student must apply for and be admitted to a degree program through the Office of Graduate and Continuing Studies.
2. The student must apply for candidacy in conference with the advisor prior to enrollment in his/her 12th hour of coursework.
3. The student must petition the Graduate and Continuing Studies Office to graduate.

Admission Criteria:

The admissions criteria for the Master’s Degree in Special Education Teaching will include the following:

1. The student must hold a Bachelor of Arts or Bachelor of Science in Education degree with requirements met for general education conditional teaching license.
2. The student will have a GPA of at least 3.00 in the undergraduate major.
3. International students must check with graduate website for requirements.
4. Students may be granted probationary admission by maintaining a 3.0 grade point average during the first nine hours of coursework.

Midpoint Review:

The student must have a least a 3.00 GPA at the midpoint (12 hours) of his or her program.

Culminating Event:

Each candidate must complete a capstone project before the Master’s degree will be granted. Arrangements for the capstone project will be made with each candidate’s advisor.

Adaptive/Functional Special Education K-6, 6-12 Emphasis (Endorsement)

Special Education Core (12 hours)

SPED 745: Behavior Analysis and Management ............ 3
SPED 750: Assessment in Special Education ................. 3
SPED 822: Seminar in Special Education Law ............... 3
SPED 833: Leadership and Collaboration in Special Education ......................................................... 3

Research Options (3-9 hours)

Option I (Thesis Program)

TCHL 890: Research and Thesis ................................ 3-6
TCHL 891: Methods of Research ................................. 3
Option II (Non-Thesis Program)
TCHL 891: Methods of Research ........................................3

Characteristics and Methods Courses (21 hours)
SPED 738: Characteristics of Students with Adaptive Learning Needs ..................................................3
SPED 779: Teaching Elementary Students with Adaptive Learning Needs ........................................3
SPED 780: Teaching Secondary Students with Adaptive Learning Needs ........................................3
SPED 852: Characteristics of Students with Functional Learning Needs ........................................3
SPED 853: Teaching Students with Functional Learning Needs ..................................................3
SPED 860: Practicum/Functional Learning Needs (___) ........................................................................3

SPED 779 Prerequisite SPED 738
SPED 780 Prerequisite SPED 738
SPED 853 Prerequisite SPED 852

SPED 738, SPED 779, SPED 780, and/or SPED 761: Nine of these 12 hours are required for provisional endorsement at the level of initial general education licensure (K-6, K-9) (6-12).

Adaptive Special Education Pre K-12 Emphasis (Endorsement)

Special Education Core (12 hours)
SPED 745: Behavior Analysis and Management ..........3
SPED 750: Assessment in Special Education .................3
SPED 822: Seminar in Special Education Law ..............3
SPED 833: Leadership and Collaboration in Special Education ..................................................3

Research Options (3-9 hours)

Option I (Thesis Program)
TCHL 890: Research and Thesis ...........................................3-6

TCHL 891: Methods of Research ........................................3

Option II (Non-Thesis Program)
TCHL 891: Methods of Research ........................................3

Characteristics and Methods Courses (21 hours)
SPED 738: Characteristics of Students with Adaptive Learning Needs ..................................................3
SPED 779: Teaching Elementary Students with Adaptive Learning Needs ........................................3
SPED 780: Teaching Secondary Students with Adaptive Learning Needs ........................................3
SPED 864: Practicum II: Adaptive Learning Needs ......3
SPED 872: Practicum III: Adaptive Learning Needs .......3
SPED 876: Teaching Young Students with Adaptive Learning Needs ........................................3

SPED 779 Prerequisite SPED 738
SPED 761 Prerequisite SPED 779 or 780
SPED 780 Prerequisite SPED 738
SPED 864 Prerequisite SPED 779 and SPED 780
SPED 872 Prerequisite SPED 876
SPED 876 Prerequisite SPED 738

SPED 738, SPED 779, SPED 761, SPED 780, SPED 872, SPED 876: Eight of these hours are required for provisional endorsement at the level of initial general education licensure (K-6 or 6-12).

Master of Science Degree with a Major in Teaching with Emphases in Elementary, Secondary or English for Speakers of Other Languages
This course of study leads to the Master of Science in Teaching degree with an emphasis in elementary, secondary, or ESOL.
Procedural Steps for Master's degree:

1. The student must apply for and be admitted to a degree program through the Office of Graduate and Continuing Studies.
2. The student must apply for candidacy in conference with the advisor prior to enrollment in his/her 12th hour of coursework.
3. The student must petition the Graduate and Continuing Studies Office to graduate.

Admission Criteria

The admission criteria for the Master's Degree in Teaching with an emphasis in Elementary, Secondary, or ESOL include the following:

1. The student will have a GPA of at least 3.00 in the undergraduate major.
2. International students must check with graduate website for requirements.
3. Students may be granted probationary admission by maintaining a 3.30 grade point average during the first nine hours of coursework.

Midpoint Review:

The student must have at least a 3.00 GPA at the midpoint (12 hours) of his or her program.

Culminating Event:

1. Students who pursue the emphasis in Elementary or Secondary Education must complete a written comprehensive examination.
2. Students who pursue the emphasis in English for Speakers of Other Languages complete a portfolio.

Students may choose from two different plans when pursuing their master's degree, Option I or Option III, both of which are described in the University Catalog. For the Elementary and Secondary emphasis areas, Option I requires a minimum of 30 credit hours which includes a thesis. For the ESOL emphasis, Option I requires a minimum of 36 hours. Option III requires a minimum of 33 hours, consisting of twelve hours minimum in or outside the College of Education, by advisement, to develop an emphasis or endorsement area, plus the 21 hour core. A research component is demonstrated through successful completion of TCHL 891 Methods of Research and through written comprehensive examinations and/or portfolio assessments. Students with strong academic records who plan to do advanced work beyond the master's degree are encouraged to follow Option I which includes a thesis. Upon recommendation of the major advisor, the candidate may elect Option III.

I. Core Courses

- Option I: 21 semester hours required
- Option III: 21 semester hours required

A. Professional Characteristics (three semester hours required)

Professional, Leadership

TCHL 843: Trends and Issues ........................................ 3

B. Instructional Planning (six semester hours required)

Instruction

TCHL 850: Current Teaching Practices ......................... 3
and READ 870: Developmental Reading
Instruction ................................................................. 3
or READ 720: Content Literacy for Middle and Secondary Teachers ........................................... 3

TCHL 870 Grant Writing and External Resources (PK-12, with field component)

READ 720 Content Literacy for Middle and Secondary Teachers (with field component) (by advisement for secondary emphasis)
C. Management of Educational Environment (six semester hours required)

Diversity

TCHL 854: Advanced Methods and Instructional Materials for English Language Learners ...................... 3

Select one course by advisement

PSYCH 810: Advanced Educational Psychology .......... 3
TCHL 840: Seminar ...................................................... 1-3
PSYCH 859: Advanced Developmental Psychology .... 3

D. Evaluation and Assessment (three semester hours required)

Assessment, Communication

Select one course by advisement

TCHL 853: Advanced Assessment and the English Language Learner .......................................................... 3
TCHL 878: Assessment for Effective Teaching .............. 3
SPED 750: Assessment in Special Education ............... 3

E. Research and Inquiry (three semester hours required)

Technology, Research

TCHL 891: Methods of Research .................................. 3

II. Elementary Emphasis

Option I: minimum of nine semester hours required

TCHL 890: Research and Thesis .................................. 3-6

• Electives by advisement (3-6 hours)

Option III: minimum of 12 semester hours of required methodology courses required
Choose from four of the following by advisement

• A graduate level course in reading (3 hours)
• A graduate level course in mathematics (3 hours)
• A graduate level course in sciences (3 hours)
• A graduate level course in languages arts (3 hours)
• A graduate level course in social studies (3 hours)
• A graduate level course in ESOL (3 hours)
• Workshops, seminars and special topics by advisement (3 hours)

III. Secondary Emphasis

Option I: minimum of nine semester hours required

TCHL 890: Research and Thesis .................................. 3-6

• Electives by advisement (3-6 hours)

Option III: minimum of 12 semester hours
In the content field inside or outside of the College of Education with at least six semester hours in the same area.

IV. English for Speakers of Other Languages Licensure Emphasis*

Option I: minimum of 15 semester hours required

TCHL 890: Research and Thesis .................................. 3-6

• Must also complete the requirement for Option III as listed below (12-18 hours)

Option III: minimum of 18 semester hours of ESOL courses are recommended for Kansas ESOL endorsement

TCHL 853 and TCHL 854 should be taken as part of the MS Teaching Core Courses, leaving only 12 additional hours required for the ESOL emphasis (12-18 hours)

ENGL 714: Applied Linguistics for English for Speakers of Other Languages ........................................ 3
TCHL 851: Multicultural Approaches to Diversity in the Classroom ......................................................... 3
TCHL 852: Advanced Culture and Language Acquisition for English Language Learners ...................... 3
TCHL 853: Advanced Assessment and the English Language Learner ...................................................... 3
TCHL 854: Advanced Methods and Instructional Materials for English Language Learners ...................... 3
TCHL 855: Advanced Practicum with English Language Learners .............................................................. 3

*If qualified licensure endorsement available.
TCHL 851, TCHL 852, TCHL 853, TCHL 854 and ENGL 714 are prerequisites or co-requisites.

TCHL 853 and TCHL 854 are part of the Master of Science in Teaching Core Courses. If these two courses are chosen to complete the core requirements, only 12 additional hours in the ESOL emphasis are required to complete the MS degree.

**Specialist in Education Degree with a Major in Advanced Studies in Leadership with an Emphasis in General School Administration**

The Specialist in Education degree program in school administration is designed to prepare superintendents and other central office personnel. Candidates for the degree must hold a Master’s Degree in an educational related field in addition to the requirements for the Specialist Degree. The degree program is designed to permit a student to specialize in a specific comprehensive knowledge of administration at both elementary and secondary levels. This is accomplished through electives and individual study courses available in the program to meet individual needs.

**Procedural Steps for Specialist's Degree:**

1. Apply for and be admitted to a degree program through the Office of Graduate and Continuing Studies;
2. Complete admission portfolio;
3. Apply for candidacy in conference with the advisor;
4. Petition the Graduate and Continuing Studies Office to graduate.

**Admissions Criteria**

The admissions criteria for the Specialist Degree Proposed Admission Standards for Educational Leadership Program will include the following:

1. The student will have a history of assuming leadership roles in a variety of settings.
2. The student will demonstrate effective writing skills when asked to respond to an on-the-spot writing assignment.
3. The student will demonstrate effective writing skills when given the opportunity to respond over a week’s time.
4. The student will demonstrate in writing the ability to:
   a. Synthesize information from a variety of sources.
   b. Apply knowledge to real-world problems.
   c. Problem-solve without grabbing at the first solution that comes to mind.
5. The student will demonstrate the ability to work collaboratively with others.
6. The student will demonstrate the ability to understand a piece of research.
7. The student will show a commitment to assuming leadership roles within organizations.
8. The student will demonstrate the ability to be self-reflective.
9. The student will demonstrate a history of meeting deadlines and satisfactorily accomplishing major tasks.

**Admissions Process**

All students who first apply to the Educational Leadership Specialist's Program will be conditionally admitted as long as they show evidence that they completed or will complete at the end of the semester an earned master’s degree from an accredited institution of higher learning.

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The Educational Leadership Admission Committee will meet three times during the year to decide whether or not to fully admit a student to the program. During the review of student portfolios, faculty will use an established rubric to judge a student’s potential for success in the program. These Admissions Meetings will occur on or around October 15, March 15 and July 1.

The course requirements of LDSP 901 will include the creation of this leadership portfolio. If a student does not take LDSP 901 as one of the first six hours, the student will individually compile the leadership portfolio along with a written statement justification for not including LDSP 901 as one of their first nine hours in the program. One member of the Educational Leadership faculty will take responsibility for helping these students compile the required portfolio. The leadership portfolio will include the following:

a. An application for admission to Graduate School.

b. Official transcripts from all colleges and universities attended by the student.

c. Three letters of recommendation: one from a superintendent, one from a Site Council member or School Board member, and one from a professor who taught the applicant at the master’s degree level.

d. A resume of educational and professional experiences.

e. A copy of current licensure.

f. A written statement of the student’s professional goals.

g. A written leadership autobiography describing the leadership roles the student has assumed during his/her adult life.

h. A writing sample where the student responded on-the-spot to a specified topic.

i. A written response to a case study where the student had at least one week to construct his/her response.

Admissions Criteria and Process for Those Seeking District-Level Licensure Only

Students who wish only to take courses required for district-level licensure and not receive a degree must also meet the same admissions criteria detailed above if they wish for Pittsburg State University to recommend them for licensure to the appropriate state department of education. They must prepare a portfolio and submit it for review by the Educational Leadership Admission Committee at one of its triennial meetings.

General School Administration Core (15 hours)
LDSP 901: Educational Systems Leadership I .................. 3
LDSP 902: Educational Systems Leadership II .................. 3
LDSP 903: Educational Systems Leadership III .................. 3
LDSP 997: Practicum Educational Systems Leadership I .................................................. 3
LDSP 998: Practicum: Educational Systems Leadership II ............................................. 3

Research Core Courses- choose from (12-15 hours)
TCHL 824: Educational Statistics I ............................. 3
TCHL 826: Computer Applications in Advanced Educational Research .................................. 3
TCHL 884: Educational Statistics II ................................ 3
TCHL 930: Seminar in Research Skills .......................... 3
and/or TCHL 990: Special Research Project .................. 2-6
TCHL 991: Research and Specialist Thesis .................... 3-6

Leadership Core Courses- choose from (9-12 hours)
LDSP 800: Educational Leadership I ......................... 3
LDSP 854: Organizational Theory and Planning ............ 3
LDSP 859: Change Processes and Professional Development .............................................. 3
TCHL 870: Grant Writing and External Resources ........ 3
LDSP 874: Educational Policy Making and Reform .... 3
Specialist in Education Degree with a Major in Advanced Studies in Leadership with an Emphasis in Special Education

The Specialist in Education degree program in Special Education is designed to prepare district level leaders. Candidates for the degree must hold a master’s degree in an educational related field in addition to the requirements for the specialist degree.

Procedural Steps for Specialist's Degree:

1. Apply for and be admitted to a degree program through the Office of Graduate and Continuing Studies;
2. Complete admission portfolio;
3. Apply for candidacy in conference with the advisor;
4. Petition the Graduate and Continuing Studies Office to graduate.

Admissions Criteria

The admissions criteria for the Specialist Degree Proposed Admission Standards for Special Education Program will include the following:

1. The student will have a history of assuming leadership roles in a variety of settings.
2. The student will demonstrate effective writing skills when asked to respond to an on-the-spot writing assignment.
3. The student will demonstrate effective writing skills when given the opportunity to respond over a week's time.
4. The student will demonstrate in writing the ability to:
   a. Synthesize information from a variety of sources.
   b. Apply knowledge to real-world problems.
   c. Problem-solve without grabbing at the first solution that comes to mind.
5. The student will demonstrate the ability to work collaboratively with others.
6. The student will demonstrate the ability to understand a piece of research.
7. The student will show a commitment to assuming leadership roles within organizations.
8. The student will demonstrate the ability to be self-reflective.
9. The student will demonstrate a history of meeting deadlines and satisfactorily accomplishing major tasks.

Admissions Process

All students who first apply to the Educational Leadership Specialist's Program will be conditionally admitted as long as they show evidence that they completed or will complete at the end of the semester an earned master's degree from an accredited institution of higher learning.

The Educational Leadership Admission Committee will meet three times during the year to decide whether or not to fully admit a student to the program.

During the review of student portfolios, faculty will use an established rubric to judge a student's potential for success in the program. These Admissions Meetings will occur on or around October 15, March 15 and July 1.

The course requirements of LDSP 800 will include the creation of this leadership portfolio. If a student does not take LDSP 800 as one of the first six hours, the student will individually compile the leadership portfolio along with a written statement justification for not including LDSP 800 as one of their first nine hours in the program. One member of the Educational Leadership faculty will take responsibility for helping these students compile the required portfolio. The leadership portfolio will include the following:

a. An application for admission to Graduate School.
b. Official transcripts from all colleges and universities attended by the student.
c. Three letters of recommendation: one from a superintendent, one from a Site Council member or School Board member, and one from a professor who taught the applicant at the master's degree level.
d. A resume of educational and professional experiences.

e. A copy of current licensure.

f. A written statement of the student’s professional goals.

g. A written leadership autobiography describing the leadership roles the student has assumed during his/her adult life.

h. A writing sample where the student responded on-the-spot to a specified topic.

i. A written response to a case study where the student had at least one week to construct his/her response.

**Special Notes:**

1. Only 700 level hours and above can be applied to the degree program. In addition, the program must include a minimum of 9 hours of 900 level course work and no more than 9 hours of 700 level course work.

2. Substitutions may be allowed for those students who have completed courses required in Ed.S. as a part of other degree programs. The student’s official advisor must approve the substitutions in advance.

**Special Education Core- choose from (12-15 hours)**

SPED 821: Teaching Students with ASD: Strategies for Building Social Relationships ..............................................3

SPED 822: Seminar in Special Education Law .........................3

SPED 823: Teaching Students with Autism Spectrum Disorders in the Inclusive Classroom .................2

SPED 827: Teaching ASD: Understanding Sensory Processing Characteristics .......................................................1

SPED 829: Teaching ASD: Issues in Transition .........................3

SPED 912: Characteristics of Students with Autism Spectrum Disorder .................................................................3

SPED 914: Teaching Students with ASD: Research Strategies for School and Community ..................................3

**Research Core Courses- choose from (12-15 hours)**

TCHL 824: Educational Statistics I .............................................3

TCHL 826: Computer Applications in Advanced Educational Research .................................................................3

TCHL 884: Educational Statistics II ............................................3

TCHL 930: Seminar in Research Skills ........................................3

and/or TCHL 990: Special Research Project ..............................2-6

TCHL 991: Research and Specialist Thesis .................................3-6

**Leadership Core Courses- choose from (12 hours)**

LDSP 800: Educational Leadership I ......................................3

LDSP 854: Organizational Theory and Planning ......................3

LDSP 859: Change Processes and Professional Development ..........................................................3

TCHL 870: Grant Writing and External Resources ...............3

**Certificate in Autism Spectrum Disorders**

The Department of Teaching and Leadership offers a 15 credit hour certificate to those who complete a graduate program of study in Autism Spectrum Disorders. The program of study is a joint effort by Pittsburg State University, Fort Hays State University (FHSU), and the Kansas State Department of Education. Course objectives in the certificate program align with the Council for Exceptional Children Standards for Teachers of Individuals with Developmental Disabilities/Autism.

Students must select one of the two strands in the program: “classic” autism or higher functioning autism/Asperger syndrome. Those who select the “classic” strand will take nine of the required core hours from Pittsburg State University and the final three from Fort Hays State University. Those who select the higher functioning autism/Asperger syndrome strand will take the 12 required core hours from Pittsburg State University. Both strands are completed with a three hour elective.

The class in communication for the “classic” strand is offered through Fort Hays State University, and students transfer the credit to Pittsburg State University. Elective courses are offered through Pittsburg State University or they may be taken through

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**Notes:**

1. Inclusive Education for Students with ASD: Core of "classic" autism.

2. For ASD: Core of higher functioning autism/Asperger syndrome.

3. For ASD: Core of higher functioning autism/Asperger syndrome.

4. For ASD: Core of higher functioning autism/Asperger syndrome.

5. For ASD: Core of higher functioning autism/Asperger syndrome.

6. For ASD: Core of higher functioning autism/Asperger syndrome.

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Kansas State Department of Education or professional associations for credit at the discretion of Pittsburg State University.

Students who wish to complete both strands of the certificate program will be required to take the additional three hour course, completing the certificate program with 18 hours.

Program completion

Two classes are offered each semester so that the certificate can be earned in one calendar year.

Once students have completed the required coursework and demonstrated that they have met the skill competency requirements, their advisor will recommend them for the certificate.

**Required Coursework (12 hours)**

SPED 750: Assessment in Special Education ..................3
SPED 812: Characteristics of Learners with Autism Spectrum Disorder .........................................................3
SPED 814: Teaching Students with ASD: Strategies for School and Community ..................................................3
SPED 821: Teaching Students with ASD: Strategies for Building Social Relationships ..................................3

**OR**

- SPP 869 CC: Topics in SLP/AUD: Autism Spectrum Disorders: Social-Communication Issues (from Fort Hays State) (3 hours)

**Electives chosen from the following (3 hours)**

SPED 747: KISN Training Series ......................................1-3
SPED 748: Autism Spectrum Disorder Workshops .. 1/2-3
SPED 822: Seminar in Special Education Law .................3
SPED 823: Teaching Students with Autism Spectrum Disorders in the Inclusive Classroom ...............2
SPED 827: Teaching ASD: Understanding Sensory Processing Characteristics .............................................1
SPED 829: Teaching ASD: Issues in Transition ...............3

- Other electives may be used with prior approval by the program advisor.
College of Technology

Dean: Bruce D. Dallman, PhD
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Mission

The mission of the College of Technology is to be the center for excellence in technology for the state of Kansas. The College of Technology assumes this leadership role through programs in four departments—Automotive Technology, Engineering Technology, Graphics and Imaging Technologies, Technology and Workforce Learning and the School of Construction. Academic majors in the College of Technology lead to associate degrees, baccalaureate degrees and graduate degrees with majors in areas such as automotive technology, construction management and construction engineering technologies, engineering technology, graphics and imaging technologies, technology education and technical teacher education. Please see the following pages for all degree programs found within the College of Technology. Graduate programs include Master of Engineering Technology and Master of Science degrees with majors in human resource development, technical teacher education, technology, technology education and a Specialist in Education degree with a major in workforce development and education.

To accomplish its mission, the college recognizes the following five areas of responsibility:

--The college supports excellence in education through its degree and certificate programs, and through its leadership in industrial technical training for the state of Kansas and the nation.

--The college promotes scholarship and creativity in the application of advanced technology by providing a resource for applied research and consultation to support industry.

--The college maintains strong industrial relationships through cooperative education, student placement, resource generation, and curricular review and development.

--The college provides statewide leadership in technical teacher education.

--The college provides an educational environment which utilizes experiential and academic processes to prepare students for technical and professional careers and in their personal lives.

The College of Technology fulfills the university’s commitment to assist American industry in the era of high technology growth by providing qualified graduates in the entire technological spectrum from the technician to the professional manager and applied designer/researcher. The college fulfills its teacher education mission by providing highly competitive teachers of technology for public schools from middle school through the university, for technical and vocational schools and institutions and for industrial trainers-teachers in industry world wide.

The close industrial ties lead to outstanding opportunities for Co-Op and internship work while students are enrolled and an exceptional placement record for graduates.

Departments

Automotive Technology
School of Construction
Engineering Technology
Graphics and Imaging Technologies
Technology and Workforce Learning

Degree Programs

Associate of Applied Science and Two-Year Technical Certificate Programs

Automotive Service Technology (AAS only)

Electrical Technology

Wood Technology (AAS only)

These technical programs provide intensive vocational and technical training. Two year Certificates or Associate of Applied Science degrees are awarded for
the successful completion of the programs. The programs are on the campus where students enjoy the many benefits, services and activities of university life. Students move rapidly from formal education to the workplace.

**Undergraduate Degrees**

**Associate of Applied Science**

**Bachelor of Applied Science in Technology**

**Bachelor of Science**

**Bachelor of Science in Education**

**Bachelor of Science in Engineering Technology**

**Bachelor of Science in Technology**

**Bachelor of Science in Vocational-Technical Education**

These programs are designed (1) to prepare for employment in business and industry in managerial and supervisory positions; (2) to prepare for employment as technologists and technicians; (3) to prepare teachers and supervisors in vocational-technical education, technology education, and industrial training.

**Graduate Degrees**

**Master of Engineering Technology**

**Master of Science**

**Specialist in Education**

Graduate programs include a combination of education, technical, and management courses from the departments within the College of Technology.

Cooperative doctoral programs exist with major universities within the region.

**Industrial Advisory Committees**

All of the programs of study utilize industrial and educational advisory committees to assist the faculty in determining the direction of each program, the educational experiences that are needed and the instructional facilities and faculty required to achieve these ends. Members are representative of corporations of various sizes and come from a variety of states.

**Student Organizations**

Student organizations are an important part of the educational process. Participation provides leadership opportunities and unique learning experiences. The student organizations available in most majors are affiliated with professional associations.

**Four-Year Bachelor of Applied Science with a Major in Technology (Associate of Applied Science Degree Emphasis)**

This program offers students who have graduated from a two-year associate of applied science degree technical program the opportunity to extend their education and training. All associate of applied science degree graduates (with a minimum of 2.50 GPA) can transfer up to 64 college credits to Pittsburg State University. Graduates receive a Bachelor of Applied Science with a major in technology and a selected emphasis by completing an additional minimum of 60 hours from Pittsburg State University. The degree program content is based on previous academic and technical preparation.

Like two-year technical programs, this bachelor degree gives students complete, hands-on training for a real-world job. Students learn engineering technology, theory, logic, leadership, and business skills to broaden their knowledge, and to better prepare them for management opportunities. Coursework is both specialized and comprehensive. Emphasis areas are similar to the programs completed at the associate of applied science degree level. Technical emphases areas available at Pittsburg State University include:

**Automotive Technology**

Automotive/Power Mechanics Emphasis
Collision Repair and Insurance Management Emphasis
Diesel and Heavy Equipment Emphasis
Diesel and Heavy Equipment (Caterpillar ThinkBIGGER) Emphasis
School of Construction

Construction Emphasis
Environment and Safety Emphasis

Engineering Technology

Electronics Emphasis
Manufacturing Emphasis
Mechanical Emphasis
Plastics Emphasis

Graphics and Imaging Technologies

Digital and Print Media Emphasis

Technology and Workforce Learning

Electrical Technology Emphasis
Technical Teacher Education Emphasis
Technology and Engineering Education emphasis
Technology Management Emphasis
Wood Emphasis
Workforce Development- Emphasis in Supervisor & Leadership and Human Resources
Automotive Technology

Chairperson: Robert Frisbee, Interim Chairperson
Professor(s): Roger E. Adams*, Perry E. Cummins, Robert Frisbee*
Associate Professor(s): Tim Dell*, Ron Downing*
Assistant Professor(s): Randy Jones, Trenton Lindbloom, Robert Scott Norman, Bob Schroer, John Thompson
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Undergraduate

Associate of Applied Science Degree with a Major in Automotive Service Technology
Bachelor of Science in Technology Degree with a Major in Automotive Technology
Bachelor of Applied Science Degree with a Major in Technology
Minor in Automotive Technology

These curricula lead to degrees of Associate of Applied Science and Bachelor of Science in Technology and are designed to prepare individuals for employment in education and industry. Successful graduates of Associate of Applied Science degree programs are employed as technicians in their respective technical field. Graduates of the technology programs find employment in administrative or supervisory positions in industrial organizations and assume responsibilities in areas of product development, manufacturing, sales and distribution, training or in teaching. They have the practical skills, technical knowledge, and organizational competence required of mid-level management personnel.

Automotive Service Technology (Two-Year)

Program prepares individuals to become automotive service technicians. Graduates are employed by automotive service centers and dealerships to use the latest in diagnostic equipment to troubleshoot and repair today’s complex automobiles. This program is a NATEF-accredited program and prepares students for Automotive Service Excellence (ASE) certifications. Hands-on laboratory/live work experiences and technical instruction necessary for ASE certification are the main components of the program.

Course Prefixes

AST – Automotive Service Technology (AAS, [Two-Year])
AT – Automotive Technology (BAS, BST, [Four-Year])

Associate of Applied Science Degree with a Major in Automotive Service Technology

The Associate of Applied Science degree is for those individuals who seek automotive service training and certification plus additional preparation for advancement into management, engineering, sales or other related areas. Upon completing the AAS degree, some graduates choose to pursue a BAS in Technology with an emphasis in Automotive Service Technology. See Bachelor of Applied Science—Technology.

Total Hours for Associate of Applied Science Degree with a Major in Automotive Service Technology (64-69 hours)

Basic Skills (13-16 hours)
ENGL 101: English Composition ........................................ 3
COMM 207: Speech Communication ................................. 3

Elective Courses (Choose two from different departments)
ACCTG 201: Financial Accounting ................................. 3
CIS 130: Computer Information Systems ...................... 3
ECON 191: Issues in Today's Economy .......................... 3
GT 190: Introduction to Technological Systems .............. 2
MATH 110: College Algebra with Review ...................... 5
MATH 113: College Algebra ........................................... 3
**Technical Courses**

- **First Semester**
  - AST 101: Engine Repair .......................... 3
  - AST 102: Brakes .................................... 3
  - AST 122: Auto Mechanics General Laboratory I .... 5
  - AST 150: Engine Performance I .................. 3
  - AST 151: Electrical Systems I ..................... 3
  - AST 152: Auto Mechanics General Laboratory II .... 5
  - AST 160: Automatic Transmissions ................. 3
  - AST 163: Manual Drive Train and Transaxle ....... 3
  - AST 164: Current Topics in Automatic Transmissions ........................................ 1
  - AST 251: Electrical Systems II .................... 3
  - AST 252: Auto Mechanics General Laboratory III .... 5
  - AST 255: Automotive Heating and Air Conditioning ................................................ 3
  - AST 256: Suspension and Steering .................... 3
  - AST 257: Auto Mechanics General Laboratory IV .... 5
  - or AST 299: Automotive Service Coop Internship .... 6
  - AST 260: Engine Performance II ..................... 3

**Second Semester**

- AST 150: Engine Performance I .................. 3
- AST 151: Electrical Systems I ..................... 3
- AST 152: Auto Mechanics General Laboratory II .... 5
- COMM 207: Speech Communication ................. 3

**Summer Session**

- AST 160: Automatic Transmissions ................. 3
- AST 163: Manual Drive Train and Transaxle ....... 3
- AST 164: Current Topics in Automatic Transmissions ........................................ 1

**Second Year**

- **First Semester**
  - AST 251: Electrical Systems II .................... 3
  - AST 252: Auto Mechanics General Laboratory III .... 5
  - AST 260: Engine Performance II ..................... 3

  - Elective course (2-4 hours)

- **Second Semester**
  - AST 255: Automotive Heating and Air Conditioning ................................................ 3
  - AST 256: Suspension and Steering .................... 3
  - AST 257: Auto Mechanics General Laboratory IV .... 5
  - or AST 299: Automotive Service Coop Internship .... 6
  - PSYCH 155: General Psychology .................... 3
  - or POLS 101: U.S. Politics .......................... 3
  - or PHIL 208: Logic and Critical Thinking ............ 3

  - Elective course (2-4 hours)

**Bachelor of Science in Technology Degree with a Major in Automotive Technology**

The BST in Automotive Technology major completes a 41 credit hour automotive core and at least one of six 21-credit hour options in: 1) manufacturing management; 2) automotive marketing and service management; 3) diesel and heavy equipment; 4) automotive training; 5) collision repair and automotive insurance management; and 6) automotive technical. Program prepares students with technical and business
courses for success in a variety of automotive-related professional positions.

**General Education**

**Basic Skills (12-13 hours)**

- ENGL 101: English Composition .................. 3
- ENGL 190: Honors English Composition .......... 3
- or ENGL 299: Introduction to Research Writing .... 3
- COMM 207: Speech Communication .............. 3
- MATH 113: College Algebra ......................... 3
- or MATH 110: College Algebra with Review ...... 5
- or MATH 133: Quantitative Reasoning .......... 3

**General Education Electives (34-41 hours)**

**Sciences (8-9 hours)**

**Natural Sciences (Select one)**

- BIOL 111: General Biology ......................... 3
- and BIOL 112: General Biology Laboratory ...... 2
- BIOL 113: Environmental Life Science .......... 4
- BIOL 211: Principles of Biology I .............. 4

**Physical Sciences (Select one)**

- CHEM 105: Introductory Chemistry .............. 3
- and CHEM 106: Introductory Chemistry Laboratory ...................................................... 1
- CHEM 107: Chemistry for the Life Sciences .... 3
- and CHEM 108: Chemistry for the Life Sciences Laboratory ........................................... 1
- PHYS 160: Physical Geology ...................... 3
- and PHYS 165: Physical Geology Laboratory .... 1
- PHYS 171: Physical Science ...................... 3
- and PHYS 172: Physical Science Laboratory ... 1

**Social Studies (Select one) (3 hours)**

- SOC 100: Introduction to Sociology .............. 3
- WOMEN 200: Introduction to Women's Studies .. 3

**Political Studies (3 hours)**

- POLS 101: U.S. Politics .......................... 3

**Producing and Consuming (5-6 hours)**

- GT 190: Introduction to Technological Systems .... 2
- or GT 350: Technology and Civilization .......... 3
- ACCTG 201: Financial Accounting ............... 3
- or CIS 130: Computer Information Systems ..... 3
- or MGMKT 101: Introduction to Business ...... 3

**Fine Arts and Aesthetic Studies (select one)**

**2-3 hours**

- ART 155: Printmaking and Paper Arts .......... 3
- ART 178: Introduction to the Visual Arts ...... 3
- ART 188: The Designed World .................... 3
- ART 217: Crafts I .................................... 3
- ART 222: Jewelry Design I ......................... 3
- ART 233: Drawing I .................................. 3
- ART 244: Ceramics I .................................. 3
- ART 266: Sculpture I .................................. 3
- ART 277: Painting I .................................. 3
- ART 288: Western Art History I ................. 3
- ART 289: Western Art History II ................. 3
- ART 311: Art Education ............................ 3
- COMM 105: Performance Appreciation ........ 3
- COMM 205: Performance Studies .............. 3
- COMM 295: Theatre History (____) ............. 3
- ENGL 250: Introduction to Creative Writing ... 3
- HHP 151: Dance Appreciation ..................... 3
- MUSIC 120: Music Appreciation (____) .......... 3
- MUSIC 121: Introduction to Music Literature .... 2
- MUSIC 321: History of Music ..................... 3

**Cultural Studies (Select one) (3-5 hours)**

- MLL 114: Chinese Language and Culture I .... 5
- MLL 124: French Language and Culture I ...... 5
- MLL 154: Spanish Language and Culture I .... 5
- MLL 184: Russian Language and Culture I ..... 5
- MLL 194: Korean Language and Culture I ...... 5
- GEOG 106: World Regional Geography ......... 3
- GEOG 300: Elements of Geography ............. 3
- GEOG 304: Human Geography ................... 3
- WOMEN 399: Global Women's Issues ........... 3
Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ........................................... 3

Physical (Select one)
FCS 203: Nutrition and Health ............................................. 3
FCS 301: Nutrition ............................................................... 3
HHP 150: Lifetime Fitness Concepts ..................................... 1
NURS 303: Introduction to Public Health .............................. 3

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ........................................... 3
HIST 102: World History from 1500 ..................................... 3
HIST 201: American History to 1865 .................................... 3
HIST 202: American History from 1865 ................................. 3

Literature
ENGL 113: General Literature .............................................. 3
ENGL 114: General Literature (Genre) ................................... 3
ENGL 116: General Literature (Theme) .................................. 3
ENGL 320: Literature and Film ............................................. 3
ENGL 315: Mythology ......................................................... 3

Philosophy
PHIL 103: Introduction to Philosophy ................................... 3
PHIL 105: Ethics ................................................................. 3
PHIL 111: Ethics: Applied Emphasis (___) .............................. 3
PHIL 112: Biomedical Ethics ................................................. 3
PHIL 113: Business Ethics .................................................... 3
PHIL 114: Environmental Ethics ............................................ 3
PHIL 208: Logic and Critical Thinking .................................. 3
PHIL 231: World Religions .................................................. 3

*For specific courses see General Education Requirements for All Baccalaureate Degrees.

Support Courses
ECON 200: Introduction to Microeconomics ............................ 3
MATH 143: Elementary Statistics ......................................... 3
ENGL 301: Technical/Professional Writing ............................... 3

** Approved Electives (7 credit hours selected from the following)
AT 300: Automotive Internship (___) ................................. 3-6
AT 301: Fundamentals of Collision Technology ...................... 3
AT 400: Automotive Internship (___) .................................. 3-6
AT 403: Current Topics in Automotive Technology (___) .... 1-3
AT 405: Laboratory Teaching Internship ................................ 3
AT 416: Fluid Power .......................................................... 3
AT 418: Failure Analysis ..................................................... 3
AT 462: Structural and Non-Structural Analysis .................... 3
AT 464: Damage Analysis, Estimating and Insurance Appraisal .................................................. 3
AT 511: Service Techniques Laboratory ................................. 3 or 5
AT 611: Diesel Engine Fundamentals .................................... 3
AT 630: On Highway Systems ............................................. 3
AT 635: Advanced Engine Performance ................................ 3
AT 640: Off Highway Systems ............................................ 3
AT 650: Dynamometer and Performance Testing .............. 3
AT 662: Automotive Finishing and Refinishing .................... 3
AT 691: Service Management Seminar ................................. 3
EET 141: Introductory Electronics ........................................ 3
EST 393: Introduction to Industrial Safety ............................. 3
MFGET 162: Welding Processes and Procedures .................. 3
TTED 606: Industrial Supervision ......................................... 3

**Courses cannot be used as elective and required course.
AT 511 should be taken for three hours.

Automotive Technical Core
AT 100: Orientation to Automotive Technology .................. 1
AT 112: Engine Analysis ..................................................... 3
AT 210: Brake Systems ...................................................... 3
AT 211: Steering, Alignment and Suspension ....................... 3
AT 215: Automotive Electrical/Electronic Equipment ............ 3
AT 216: Automotive Electrical/Electronic Equipment Laboratory .................................................. 3
AT 314: Manual Transmission and 4WD Mechanisms ............... 3
AT 399: Automotive Professional Development .................... 2
AT 410: Emerging Developments in Automotive Technology .................................................. 1
AT 414: Automatic Transmissions ....................................... 3
AT 510: Automotive Climate Systems .................................. 3
AT 519: Fuels, Combustion and Lubricants .................3
AT 615: Engine Performance Laboratory ....................3
or AT 621: Advanced Diesel Electronics and
Diesel Engine Laboratory ...................................3
AT 679: Future Power for Automobile Technology
.................................................................3
AT 690: Dealership and Manufacturer
Management ....................................................3
AT 699: Automotive Senior Seminar ......................1

At least one of the following options must
be completed

Option One: Automotive Manufacturing
Management
MGET 160: Manufacturing Graphics ....................3
MGET 261: Computer Aided Part Design ................3
MGET 263: Manufacturing Methods I .................2
MGET 268: Manufacturing Methods I Laboratory
.................................................................1
MGET 367: Manufacturing Methods II .................4
MGET 405: Quality Control .............................3
EST 393: Introduction to Industrial Safety ............3

• Approved manufacturing elective# (3-5 hours)

#MGET 661 Computer Aided Manufacturing I or
MGET 567 Principles of Metalcasting plus MGET 568
Metalcasting Processing Laboratory are the
recommended electives.

Option Two: Automotive Service
Management and Marketing
ACCTG 202: Managerial Accounting .................3
AT 301: Fundamentals of Collision Technology ........3
AT 511: Service Techniques Laboratory ............3 or 5
AT 691: Service Management Seminar ...............3
MGMKT 327: Organizational Theory and Behavior
...............................................................3
MGMKT 330: Basic Marketing ..........................3
MGMKT 444: Legal and Social Environment of
Business .......................................................3
ACCTG 202 can be substituted through approval of an
accounting elective.

AT 511 must be taken for three hours.

Option Three: Diesel and Heavy Equipment
MGET 162: Welding Processes and Procedures ........3
AT 416: Fluid Power .......................................3
AT 418: Failure Analysis ..................................3
AT 611: Diesel Engine Fundamentals ..................3
AT 630: On Highway Systems ..........................3
AT 640: Off Highway Systems ..........................3
AT 654: Advanced Hydraulic Systems and Off
Highway Systems Laboratory ..........................3

Option Four: Automotive Training
GT 320: Communication Systems in Technology ....3
AT 301: Fundamentals of Collision Technology ........3
PSYCH 357: Educational Psychology .................3
TTED 395: Task Analysis for Technical Teachers ....1
TTED 396: Curriculum Usage in Technical
Education .......................................................2
TE 479: Teaching Techniques for Technology and
Engineering Education .................................3
TE 496: Organization and Management for
Technology and Engineering Education ............3
AT 511: Service Techniques Laboratory .............3 or 5
TTED 395 and TTED 396 can be substituted through
approval.

AT 511 must be taken for three hours.

Option Five: Automotive Collision Repair
and Insurance Management
MGET 162: Welding Processes and Procedures ........3
AT 301: Fundamentals of Collision Technology ........3
MGMKT 444: Legal and Social Environment of
Business .......................................................3
AT 462: Structural and Non-Structural Analysis ........3
AT 464: Damage Analysis, Estimating and
Insurance Appraisal ......................................3
AT 662: Automotive Finishing and Refinishing .......3
AT 691: Service Management Seminar ...............3

Option Six: Automotive Technical

Complete 21 hours (7 of the 8 courses)
AT 301: Fundamentals of Collision Technology ....3
AT 416: Fluid Power .......................................3
AT 418: Failure Analysis ..................................3
AT 511: Service Techniques Laboratory ..................3 or 5
AT 611: Diesel Engine Fundamentals ......................3
AT 635: Advanced Engine Performance ..................3
AT 650: Dynamometer and Performance Testing ........3
EET 141: Introductory Electronics ..........................3
AT 511 should be taken for three hours.

Minimum total hours required for degree (124 hours)

Bachelor of Applied Science Degree with a
Major in Technology
This program offers students who have graduated from
an accredited two-year associate degree technical
program the opportunity to extend their education and
training. All associate degree graduates (with a
minimum GPA of 2.50) can automatically transfer up to
64 college credits to Pittsburg State University.
Graduates receive a Bachelor of Applied Science degree
with a major in technology and a selected emphasis by
completing an additional minimum of 60 hours from
Pittsburg State University. The degree program content
is based on previous academic and technical
preparation.

Like two-year technical programs, this bachelor degree
gives students complete, hands-on training for a real-
world job. Students learn engineering technology,
theory, logic, leadership, and business skills to broaden
their knowledge, and to better prepare them for
management opportunities. Coursework is both
specialized and comprehensive. Emphasis areas are
similar to the programs completed in the associate
degrees. Technical emphases areas through the
Automotive Technology department are
Automotive/Power Mechanics Emphasis, Collision
Repair and Insurance Management emphasis, Diesel
and Heavy Equipment Emphasis and Diesel and Heavy
Equipment (Caterpillar ThinkBIGGER) Emphasis.

Basic Skills
ENGL 101: English Composition ..........................3
ENGL 299: Introduction to Research Writing ..........3
or ENGL 301: Technical/Professional Writing .......3
COMM 207: Speech Communication ....................3
COMM 207 as well as ENGL 301 can have other courses
substituted in their place.

Behavioral, Social, History & Political
Studies
PSYCH 155: General Psychology ..........................3
or PSYCH 680: Human Relations in the Workplace
.................................................................3
SOC 100: Introduction to Sociology ......................3
or POLS 101: U.S. Politics ..................................3
or HIST 201: American History to 1865 ..............3
or GT 350: Technology and Civilization ..............3
or TM 350: Societal Influence of Technology ..........3
or Social Science and/or Political Studies Elective (3
hours)

Mathematics
MATH 113: College Algebra ..................................3
or MATH 114: Elements of Technical Analysis .......3
MATH 143: Elementary Statistics ..........................3

MATH 114 as well as MATH 143 can be substituted by
another mathematics course.

Sciences (Minimum of 6 hours)
BIOL 113: Environmental Life Science ..................4
PHYS 171: Physical Science ................................3
PHYS 172: Physical Science Laboratory .................1

BIOL 113 can be substituted by another natural science
course.

PHYS 171 can be substituted by another physical
science course.

Producing and Consuming
ACCTG 201: Financial Accounting ........................3
or Approved business substitute (3 hours)

Fine Arts (choose one)
ART 178: Introduction to the Visual Arts ...............3
COMM 105: Performance Appreciation .................3
COMM 205: Performance Studies .........................3
HHP 151: Dance Appreciation ............................3
MUSIC 120: Music Appreciation (___) .................................3

- Approved Humanities (e.g., Ethics) (3 hours)

**Cultural Studies (choose one)**
GEOG 300: Elements of Geography .................................3
GEOG 304: Human Geography ........................................3

- Approved elective from cultural studies (3 hours)

**Business Support Courses**

**Business Courses**
MGMKT 327: Organizational Theory and Behavior
........................................................................................................3
MGMKT 444: Legal and Social Environment of Business
........................................................................................................3
MGMKT 629: Human Resource Management ........................3
or MGMKT 330: Basic Marketing .................................3

- Approved 300 and above business elective (e.g. TQM) (3 hours)

**Technical Specialization, Support and Electives**

**Technical Specialization**

- Technical courses from 2-Year associate degree (40 hours)

**Automotive Technical Support Courses**
MFGET 405: Quality Control ........................................3
AT 399: Automotive Professional Development ............2
AT 615: Engine Performance Laboratory .........................3
AT 699: Automotive Senior Seminar ................................1
AT 300 and AT 400 should be taken for 3 hours each.

MFGET 405 can be substituted through approval.

**Technical Electives (Select 15 hours from below)***
AT 300: Automotive Internship (___) .................................3-6
AT 400: Automotive Internship (___) .................................3-6
AT 414: Automatic Transmissions ........................................3
AT 519: Fuels, Combustion and Lubricants .........................3
MFGET 160: Manufacturing Graphics .................................3
MFGET 261: Computer Aided Part Design ..........................3

- Technical elective approved by advisor (3-6 hours)

**Automotive/Power Mechanics Emphasis Courses**

**Automotive/Power Mechanics Emphasis Courses**

- Technical courses from 2-Year associate degree (40 hours)

**Technology Management (Organization and Leadership)***
TTED 606: Industrial Supervision ........................................3
AT 690: Dealership and Manufacturer Management
........................................................................................................3
TM 500: Industrial Organization and Technology Management
........................................................................................................3
EST 393: Introduction to Industrial Safety ...........................3

#Training (Technical-Related Education and Education) courses may be substituted for candidates interested in more of a “training emphasis”.

**Collision Repair and Insurance Management**

**Technology Management (Organization and Leadership)**
TTED 606: Industrial Supervision ........................................3
AT 690: Dealership and Manufacturer Management
........................................................................................................3
TM 500: Industrial Organization and Technology Management
........................................................................................................3

#Training (Technical-Related Education and Education) courses may be substituted for candidates interested in more of a “training emphasis”.

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#Training (Technical-Related Education and Education) courses may be substituted for candidates interested in more of a “training emphasis”.
EST 393: Introduction to Industrial Safety .................... 3
or approved substitute safety course

Technical Specialization, Support and Electives

Technical Specialization

- Technical courses from 2-Year associate degree (40 hours)

Automotive Technical Support Courses

AT 399: Automotive Professional Development ............ 2
AT 464: Damage Analysis, Estimating and Insurance Appraisal ......................................................... 3
AT 679: Future Power for Automobile Technology .................................................................................. 3
AT 699: Automotive Senior Seminar ............................ 3
AT 300 and AT 400 should be taken for 3 hours each.

MGFET 405 can be substituted through approval.

Technical Electives (Select nine hours from below)#

AT 211: Steering, Alignment and Suspension ................ 3
AT 300: Automotive Internship (____) ....................... 3-6
AT 301: Fundamentals of Collision Technology ............ 3
AT 400: Automotive Internship (____) ....................... 3-6
AT 462: Structural and Non-Structural Analysis .......... 3
AT 510: Automotive Climate Systems ...................... 3
AT 662: Automotive Finishing and Refinishing .......... 3
ETECH 296: Materials in Industry .......................... 3
or GT 330: Engineering Materials and Processes ........ 3

- Technical electives approved by advisor (9 hours)

#Training (Technical-Related Education and Education) courses may be substituted for candidates interested in more of a “training emphasis”.

Diesel and Heavy Equipment Emphasis Courses

Technology Management (Organization and Leadership)#

TTED 606: Industrial Supervision ............................. 3
AT 690: Dealership and Manufacturer Management ................................................................. 3
TM 500: Industrial Organization and Technology Management ..................................................... 3
EST 393: Introduction to Industrial Safety .................... 3

#Training (Technical-Related Education and Education) courses may be substituted for candidates interested in more of a “training emphasis”.

Technical Specialization, Support and Electives

Technical Specialization

- Technical courses from 2-Year associate degree (40 hours)

Automotive Technical Support Courses

MGFET 405: Quality Control .................................. 3
AT 300: Automotive Internship (____) ...................... 3-6
AT 399: Automotive Professional Development .......... 2
AT 400: Automotive Internship (____) ...................... 3-6
AT 621: Advanced Diesel Electronics and Diesel Engine Laboratory ............................................... 3
AT 699: Automotive Senior Seminar ...................... 1
AT 300 and AT 400 should be taken for 3 hours each.

MGFET 405 can be substituted through approval.

Technical Electives (Select 9 hours from below)#

AT 414: Automatic Transmissions ............................ 3
AT 519: Fuels, Combustion and Lubricants ............... 3
AT 630: On Highway Systems .................................. 3
AT 640: Off Highway Systems ............................... 3
AT 654: Advanced Hydraulic Systems and Off Highway Systems Laboratory .................................. 3
MGET 160: Manufacturing Graphics .........................3
MGET 261: Computer Aided Part Design .........................3

- Technical elective approved by advisor (3-6 hours)

#Training (Technical-Related Education and Education) courses may be substituted for candidates interested in more of a “training emphasis”.

Diesel and Heavy Equipment (Caterpillar ThinkBIGGER) Emphasis Courses

Technology Management (Organization and Leadership)**
TTED 606: Industrial Supervision ................................3
AT 690: Dealership and Manufacturer Management .........................................................3
TM 500: Industrial Organization and Technology Management .........................................................3
EST 393: Introduction to Industrial Safety .................3

**Recommended CAT sales, marketing, and dealership management courses may be taken (with prior approval) for college credit, as substitutes or electives. Approved substitutes (e.g., training [education] courses) may be used.

Technical Specialization, Support and Electives

Technical Specialization

- Technical courses from 2-Year associate degree (40 hours)

AAS Technical courses from CAT ThinkBIG program

Automotive Technical Support Courses
MGET 405: Quality Control ........................................3
AT 300: Automotive Internship (____) ..................3-6
AT 399: Automotive Professional Development ..........2
AT 400: Automotive Internship (____) ..................3-6

AT 621: Advanced Diesel Electronics and Diesel Engine Laboratory .........................................................3
AT 699: Automotive Senior Seminar .........................1
AT 300 and AT 400 should be taken for 3 hours each.

MGET 405 can be substituted through approval.

Technical Electives (Select nine hours from below)**
AT 414: Automatic Transmissions .........................3
AT 519: Fuels, Combustion and Lubricants .................3
AT 630: On Highway Systems .................................3
AT 640: Off Highway Systems .................................3
AT 654: Advanced Hydraulic Systems and Off Highways Systems Laboratory .........................3
MGET 160: Manufacturing Graphics .........................3
MGET 261: Computer Aided Part Design .........................3

- Technical elective approved by advisor

**Recommended CAT sales, marketing, and dealership management courses may be taken (with prior approval) for college credit, as substitutes or electives. Approved substitutes (e.g., training [education] courses) may be used.

Minor in Automotive Technology
Minor consist of a minimum of 25 semester hours in one technical field.

Automotive Minor
AT 112: Engine Analysis .........................................3
AT 210: Brake Systems .........................................3
AT 211: Steering, Alignment and Suspension .............3
AT 215: Automotive Electrical/Electronic Equipment .................................................................3
AT 216: Automotive Electrical/Electronic Equipment Laboratory .........................................................3

Electives chosen from (10 hours)
AT 314: Manual Transmission and 4WD Mechanisms .................................................................3
AT 403: Current Topics in Automotive Technology (____) .................................................................1-3
or AT 410: Emerging Developments in
Automotive Technology ................................................. 1
AT 414: Automatic Transmissions ................................. 3
AT 510: Automotive Climate Systems ............................. 3
AT 511: Service Techniques Laboratory .................. 3 or 5
AT 615: Engine Performance Laboratory ...................... 3
AT 690: Dealership and Manufacturer
Management ................................................................. 3
AT 691: Service Management Seminar ...................... 3
School of Construction

Chairperson: James L. Otter
Professor(s): Bruce D. Dallman*, James L. Otter*, L.S. LEED AP; Randall J. Timi, P.E.
Associate Professor(s): Shannon D. Nicklaus, LEED AP
Assistant Professor(s): Dennis J. Audo, Patrick R. Flynn, Justin Honey, A.C. LEED AP; Joseph D. Levens Jr., CPC, LEED AP; Seth E. O’Brien, CPC, LEED AP; William J. Strenth*, LEED AP
Instructors: Jenny McCool, Clifford Morris, Marty Ann Petersen, Paul Zerkel

*Graduate Faculty

Room W223 Kansas Technology Center
Telephone: 620-235-6555
Fax: 620-235-6558
http://www.pittstate.edu/department/construction/
E-mail: construction@pittstate.edu

Undergraduate

Bachelor of Science in Engineering Technology Degree
with a Major in Construction Engineering Technology
Bachelor of Science in Technology Degree with a Major in Construction Management
Bachelor of Applied Science Degree with a Major in Technology
Minor in Construction Technology
Minor in Construction Technology for Interior Design
Minor in Construction Management
Minor in Safety, Health and Environmental Management

Graduate

Master of Engineering Technology

Introduction

The PSU School of Construction bases its curriculums on the operations of the modern construction industry focusing on construction field and project operations. The Construction Engineering Technology major with a Bachelor of Science in Engineering Technology degree is accredited by the Technology Accreditation Commission of ABET, http://www.abet.org. Both the Construction Engineering Technology and Construction Management degree curriculums begin with a practical approach to construction materials and methods education then proceeds through appropriate laboratory and construction project management and engineering technology coursework. The Construction Engineering Technology major adds strong engineering technology concepts while the Construction Management major adds courses in various construction emphases. Both conclude with a simulated real-world capstone experience. The department sponsors several student organizations and honor societies.

Both degrees prepare students for professional careers in construction and construction-related industries. Opportunities include professional positions as field engineers, estimators, project engineers, superintendents, project managers, owners and safety managers. These positions are available in the commercial, residential, civil, industrial, engineering, and specialty sectors of the construction industry locally, nationally and internationally.

The curriculum emphasizes current technology, leadership skills, ethics and professionalism. Industry-specific computer applications include CAD, scheduling, estimating and modeling presented to the student in early coursework and used throughout the curriculum. Building Information Modeling (BIM), Virtual Design and Construction (VDC), Leadership in Energy and Environmental Design (LEED) and Lean Construction topics are presented in the curriculum. Laboratories utilize modern industry-grade equipment in appropriate areas. The department maintains close ties to industry and alumni and are strongly supported in the form of scholarships, equipment, advisement, and graduate placement.

The Safety, Health and Environmental Management minor prepares students for a career in industrial and construction safety management and supervision. Ten- and thirty-hour compliance cards from the Occupational Safety and Health Act (OSHA) are available for students who qualify.

The School of Construction and the Department of Engineering Technology combines to offer a
Mission and our Vision

Construction/industrial within economic and industry strive construction outdoor project contract.

Objective describe or educational educational field technology students, facilities continue construction technical construction PSU social participating vision mission is social responsibility.

Mission

Our mission is to provide a quality construction education and develop professional leaders for the construction industry through extensive recruitment, real-world education and successful placement. We strive to improve the community through service, economic development and applied research.

Vision

Our vision is to be an innovative leader in an effective, people-centered, collaborative, accessible learning environment maximizing the potential of construction students, faculty and industry constituents.

Educational Objectives/Outcomes

Educational objectives are broad statements that describe the career and professional accomplishments that the program is preparing its graduates to achieve within two to five years of the start of their professional career. The educational objectives of the School of Construction at Pittsburg State University are:

Objective 1: Graduates will have the ability to enter and continue advancement within the construction industry or construction-related industries including managerial or technical positions in construction field supervision, project management, cost estimating, scheduling, contract administration, material testing and inspection, field engineering and surveying, supervised design, technical sales, or governmental regulation.

Objective 2: Graduates will have a sense of professionalism that allows them to become informed and participating citizens cognizant of ethics, civic duty, and social responsibility.

Objective 3: Graduates will have technical skills and knowledge in mathematics, science, engineering, and technology to support planning, analyzing, and solving of engineering and construction problems using current and appropriate management and design tools and techniques.

Objective 4: Graduates will have business skills and knowledge in management practices, cost accounting, and financial decision-making to support sound construction project management.

Objective 5: Graduates will have leadership skills that prepare them to assume roles in which they can effectively create an environment in which others attain their full potential.

Objective 6: Graduates will have effective verbal, non-verbal, and interpersonal communication skills to support their role in industry.

Outcomes are statements that describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that the students acquire in their matriculation through the program.

Outcome 1: Students will demonstrate an appropriate mastery of the knowledge, techniques, skills and modern tools/software of construction related to: contract documents, codes, materials testing, construction layout/surveying, best construction methods/practices, estimating, scheduling, safety, design of construction systems (temporary structures, concrete, foundations, formwork, basic electrical/mechanical systems), appropriate software (Excel, Autocad, Primavera, Timberline).

Outcome 2: Students will demonstrate an ability to apply current knowledge and adapt to emerging application of mathematics, science, engineering and technology related to construction methods and design.

Outcome 3: Students will demonstrate an ability to conduct, analyze and interpret experiments, and apply experimental results to improve construction processes and solve construction problems.
Outcome 4: Students will demonstrate an ability to apply creativity in the design of construction systems, components, or processes.

Outcome 5: Students will demonstrate the ability to communicate (graphically, verbally and non-verbally) and function effectively in teams.

Outcome 6: Students will understand the importance of lifelong learning, continuous improvement, timeliness and a commitment to quality.

Outcome 7: Students will understand professional, ethical and social responsibilities, and show a respect for diversity and a knowledge of contemporary professional, societal and global issues.

No credit is allowed toward graduation or to satisfy pre-requisite requirements for grades below "C" in CMCET courses, MATH 113 College Algebra and MATH 122 Plane Trigonometry.

Laboratories

The curriculum in the School of Construction requires considerable applied experience in various construction processes and software applications. To support this experience, the School of Construction is served by supporting laboratories that utilize current technology, software and equipment within the safety labs, surveying lab, materials testing lab, project management lab, estimating lab, HVAC lab and computer lab.

Faculty/Students

The faculty in the School of Construction must have an earned baccalaureate and masters degree in construction engineering, construction engineering technology or a closely related construction field, and a minimum of three years construction experience related to the subjects they are teaching. The department presently has thirteen (13) full-time faculty members and approximately 300-350 undergraduate and graduate majors and minors.

Professional Affiliations

The faculty are members of various professional organizations including:

- Associated Schools of Construction (ASC)
- American Society for Engineering Education (ASEE)
- Associated General Contractors of America (AGC)
- Associated General Contractors (AGC of Kansas)
- Kansas Contractors Association (KCA)
- Kansas Society of Land Surveyors (KSLS)
- National Society of Professional Engineers (NSPE)
- American Concrete Institute (ACI)
- American Institute of Constructors (AIC)
- National Association of Home Builders (NAHB)
- Mechanical Contractors Association of America (MCAA)
- American Society of Safety Engineers (ASSE)
- National Safety Council (NSC)
- United States Green Building Council (USGBC)
- Lean Construction Institute (LCI)
- Project Management Institute (PMI)
- Association for the Advancement of Cost Engineering (AACE)
- American Society of Civil Engineers (ASCE)

Scholarships and Awards

Student achievement is recognized through an annual awards process within the College of Technology. School of Construction scholarships are available through the University and the private sector. The School of Construction offers scholarships from the Construction Alumni Association, various construction trade associations and a growing number of regional and national construction companies.
Student Organizations

Students in the School of Construction have the opportunity to be involved with numerous student organizations. These student organizations/chapters include:

- Associated General Contractors (AGC) of Kansas;
- Mechanical Contractors Association of America (MCA);
- American Society of Safety Engineers (ASSE);
- Society of Women Engineers (SWE);
- National Association of Home Builders (NAHB);
- Sigma Lambda Chi (Construction Honor Society)

Students are able to attend state and national meetings and events.

Construction Leadership Council

The School of Construction is advised by two leadership councils. The Construction Leadership Council is made up of over 40 members who represent most of the various sectors and specialty areas in construction as well as a variety of closely related industries. Many are PSU alumni. The Safety, Health and Environmental Management Advisory board consists of safety representatives from various industries. Both boards meet each semester with PSU faculty and administration to provide direction and input on program and curriculum issues.

Technology Minors

The technology minors in the School of Construction require a minimum of 21 semester hours in a technical area.

Changes in Requirements

Baccalaureate degree curriculums offered by the School of Construction are periodically revised and updated. Such revisions will be communicated by the department to currently enrolled students majoring in its programs. Each student is encouraged to complete the most recent curriculum in effect at the time of that student’s graduation unless those revisions would extend the student’s graduation date.

Prefixes for the School of Construction Programs:

CMCET denotes Construction Management and Construction Engineering Technologies courses.

EST denotes Environmental Safety Technology courses.

ETECH denotes general Engineering Technology courses.

Bachelor of Science in Engineering Technology Degree with a Major in Construction Engineering Technology

Basic Skills (12 hours)

COMM 207: Speech Communication ....................... 3
ENGL 101: English Composition .................................. 3
ENGL 190: Honors English Composition ..................... 3
or ENGL 299: Introduction to Research Writing ........... 3
MATH 143: Elementary Statistics .................................. 3

General Education Electives (30-36 hours)

Sciences (9-10 hours)

Natural Sciences (Select one)

BIOL 111: General Biology ........................................... 3
and BIOL 112: General Biology Laboratory .................... 2
BIOL 113: Environmental Life Science ......................... 4
BIOL 211: Principles of Biology I ................................. 4

Physical Sciences (Select one)

PHYS 100: College Physics I ........................................... 4
or PHYS 104: Engineering Physics I ............................ 4
PHYS 130: Elementary Physics Laboratory I ................. 1

Social Studies (Select one) (3 hours)

SOC 100: Introduction to Sociology ............................... 3
WOMEN 200: Introduction to Women’s Studies ............ 3

Political Studies (3 hours)

POLS 101: U.S. Politics ............................................. 3
Producing and Consuming (6 hours)

**Technology**
CMCET 234: The Construction Industry .......................... 3

**Business**
ACCTG 201: Financial Accounting ............................... 3

**Fine Arts and Aesthetic Studies/Cultural Studies (Select one) (2-5 hours)**
ART 155: Printmaking and Paper Arts ............................. 3
ART 178: Introduction to the Visual Arts .......................... 3
ART 188: The Designed World ..................................... 3
ART 217: Crafts I ..................................................... 3
ART 222: Jewelry Design I ........................................... 3
ART 233: Drawing I .................................................. 3
ART 244: Ceramics I .................................................. 3
ART 266: Sculpture I .................................................. 3
ART 277: Painting I ................................................... 3
ART 288: Western Art History I .................................... 3
ART 289: Western Art History II .................................. 3
ART 311: Art Education .............................................. 3
COMM 105: Performance Appreciation ............................ 3
COMM 205: Performance Studies ................................... 3
COMM 295: Theatre History (____) ............................... 3
ENGL 250: Introduction to Creative Writing .................... 3
HHP 151: Dance Appreciation ..................................... 3
MUSIC 120: Music Appreciation (____) .......................... 3
MUSIC 121: Introduction to Music Literature ..................... 2
MUSIC 321: History of Music ....................................... 3
MLL 114: Chinese Language and Culture I ...................... 5
MLL 124: French Language and Culture I ....................... 5
MLL 154: Spanish Language and Culture I ....................... 5
MLL 184: Russian Language and Culture I ....................... 5
MLL 194: Korean Language and Culture I ....................... 5
GEOG 106: World Regional Geography .......................... 3
GEOG 300: Elements of Geography ............................... 3
GEOG 304: Human Geography ..................................... 3
WOMEN 399: Global Women's Issues ............................ 3

**Health and Well Being (4-6 hours)**

**Psychological**
PSYCH 155: General Psychology .................................... 3

**Physical (Select one)**
FCS 203: Nutrition and Health ..................................... 3
FCS 301: Nutrition ................................................... 3
HHP 150: Lifetime Fitness Concepts ............................... 1
NURS 303: Introduction to Public Health ........................ 3

**Human Heritage (Select one course from one of the following three categories) (3 hours)**

**History**
HIST 101: World History to 1500 ................................ 3
HIST 102: World History from 1500 ............................... 3
HIST 201: American History to 1865 ............................. 3
HIST 202: American History from 1865 .......................... 3

**Literature**
ENGL 113: General Literature ..................................... 3
ENGL 114: General Literature (Genre) ............................ 3
ENGL 116: General Literature (Theme) ........................... 3
ENGL 315: Mythology ................................................ 3
ENGL 320: Literature and Film ..................................... 3

**Philosophy**
PHIL 103: Introduction to Philosophy ............................ 3
PHIL 105: Ethics ....................................................... 3
PHIL 111: Ethics: Applied Emphasis (____) ........................ 3
PHIL 112: Biomedical Ethics ....................................... 3
PHIL 113: Business Ethics ........................................... 3
PHIL 114: Environmental Ethics .................................... 3
PHIL 208: Logic and Critical Thinking ............................ 3
PHIL 231: World Religions .......................................... 3

**Major Requirements***

**Technical Specialties (60 hours)**
CMCET 133: Construction Graphics ............................... 3
CMCET 234: The Construction Industry .......................... 3
CMCET 235: Methods of Construction-Light Frame and Finishes ........................................ 2
CMCET 330: Mechanical Systems (HVAC) ........................ 3
CMCET 331: Electrical Systems .................................... 3
CMCET 334: Methods of Construction-Sitework and Steel ........................................... 3
CMCET 335: Methods of Construction-Concrete and Masonry ......................................................... 3
CMCET 337: Construction Materials Testing and Inspection ............................................................. 2
CMCET 350: Mechanical Systems (Plumbing) .......... 2
CMCET 431: Structural Loads ............................... 1
CMCET 434: Civil Construction .................................. 3
CMCET 530: Construction Cost Management .......... 3
CMCET 536: Temporary Structures .......................... 2
CMCET 537: Construction Surveying I ...................... 3
CMCET 631: Construction Estimating I ...................... 3
CMCET 632: Steel and Wood Structures ................... 3
CMCET 633: Concrete Structures .............................. 3
CMCET 634: Construction Management .................. 3
CMCET 635: Contract Administration ........................ 3
CMCET 637: Construction Surveying II .................... 3
CMCET 638: Foundation and Soil Mechanics ............... 3
CMCET 639: Construction Estimating II ..................... 2
CMCET 690: Professional Construction Certification Seminar ....................................................... 1
CMCET 691: Senior Project ........................................ 3
CMCET 234 The Construction Industry meets general education requirements.

A grade of "C" or better is required for credit toward graduation and to satisfy pre-requisite requirements in all CMCET courses, MATH 122 Plane Trigonometry (or equivalent).

**Support Courses (27-28 hours)**

PHYS 101: College Physics II .......................................... 4
and PHYS 131: College Physics Laboratory II .................. 1
or PHYS 105: Engineering Physics II ................................. 4
and PHYS 132: Engineering Physics Laboratory II .......... 1
or CHEM 112: Essentials of Chemistry ........................... 3
and CHEM 113: Essentials of Chemistry Laboratory ...................................................... 1
or CHEM 215: General Chemistry I ................................. 3
and CHEM 216: General Chemistry I Laboratory .......... 2
MATH 122: Plane Trigonometry ........................................ 3
MATH 143: Elementary Statistics ................................... 3
MATH 150: Calculus I ................................................... 5
MECET 220: Statics ...................................................... 3
or PHYS 220: Engineering Mechanics I-Statics .............. 3
MECET 423: Mechanics of Materials ............................ 3
ENGL 301: Technical/Professional Writing ....................... 3
ACCTG 201: Financial Accounting ................................... 3

EST 396: Introduction to Construction Safety ............. 3
CMCET 200: Cooperative Education (__) ................. 1-6
or CMCET 300: Cooperative Education (__) .............. 3-6
or CMCET 400: Cooperative Education (__) .............. 3-6
Total hours for Bachelor of Science Degree with a Major in Construction Engineering Technology (129-136 hours)

CMCET 200, 300 or 400 should be taken for at least 3 hours.

MATH 143 Elementary Statistics and ACCTG 201
Financial Accounting meet general education requirements.

** Mathematics classes below MATH 122 Plane Trigonometry do not count towards degree requirements.

** Bachelor of Science in Technology Degree with a Major in Construction Management

**Basic Skills (12 hours)**

COMM 207: Speech Communication ............................. 3
ENGL 101: English Composition ................................. 3
ENGL 190: Honors English Composition ........................ 3
or ENGL 299: Introduction to Research Writing ............... 3
MATH 113: College Algebra ........................................... 3

**General Education Electives (35-41 hours)**

**Sciences (8-9 hours)**

**Natural Sciences (Select one)**

BIOL 111: General Biology .......................................... 3
and BIOL 112: General Biology Laboratory .................... 2
BIOL 113: Environmental Life Science .......................... 4
BIOL 211: Principles of Biology I .................................. 4

**Physical Sciences (Select one)**

PHYS 160: Physical Geology .......................................... 3
and PHYS 165: Physical Geology Laboratory .................... 1
PHYS 162: Physical Oceanography ................................ 3
and PHYS 163: Physical Oceanography Laboratory .......... 1
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<td>PHYS 171</td>
<td>Physical Science</td>
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<td>PHYS 172</td>
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<td>HHP 150</td>
<td>Lifetime Fitness Concepts</td>
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<td>NURS 303</td>
<td>Introduction to Public Health</td>
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<td>HIST 101</td>
<td>World History to 1500</td>
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<td>ENGL 114</td>
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<td>ENGL 116</td>
<td>General Literature (Theme)</td>
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<td>ENGL 315</td>
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<td>ENGL 320</td>
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<td>Introduction to Philosophy</td>
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PHIL 111: Ethics: Applied Emphasis (___) ............... 3
PHIL 112: Biomedical Ethics ................................... 3
PHIL 113: Business Ethics ........................................ 3
PHIL 114: Environmental Ethics .............................. 3
PHIL 208: Logic and Critical Thinking ...................... 3
PHIL 231: World Religions ...................................... 3

**Major Requirements**

**Technical Specialties (48 hours)**
CMCET 133: Construction Graphics ................................... 3
CMCET 234: The Construction Industry .......................... 3
CMCET 235: Methods of Construction-Light
Frame and Finishes .............................................. 2
CMCET 330: Mechanical Systems (HVAC) ..................... 3
CMCET 331: Electrical Systems ................................ 3
CMCET 333: Theory of Structures ............................. 3
CMCET 334: Methods of Construction-Sitework
and Steel ....................................................... 3
CMCET 335: Methods of Construction-Concrete
and Masonry .................................................. 3
CMCET 337: Construction Materials Testing and
Inspection ....................................................... 3
CMCET 350: Mechanical Systems (Plumbing) ............... 2
CMCET 434: Civil Construction ............................... 3
CMCET 537: Construction Surveying I ........................ 3
CMCET 631: Construction Estimating I ......................... 3
CMCET 634: Construction Management ...................... 3
CMCET 635: Contract Administration ........................ 3
CMCET 639: Construction Estimating II ..................... 2
CMCET 690: Professional Construction
Certification Seminar .......................................... 1
CMCET 691: Senior Project .................................... 3

**Emphases (choose one) (12 hours)**

**Company Management Emphasis**
MGMKT 101: Introduction to Business ......................... 3
MGMKT 327: Organizational Theory and Behavior
.......................................................................... 3
MGMKT 444: Legal and Social Environment of
Business .................................................................. 3
MGMKT 629: Human Resource Management ................ 3

#Approved Leadership course#

Approved Leadership courses include:

- LDSP 600  Foundations of Leadership
- TM 520  Leadership in the Workplace
- MIL 303 Leadership Assessment and Development
Course

**Field Management Emphasis**
MFGET 162: Welding Processes and Procedures .......... 3
TTED 606: Industrial Supervision .............................. 3

- Approved Technical Elective (3 hours)
- Approved Leadership course# (3 hours)

#Approved Leadership courses include:

- LDSP 600  Foundations of Leadership
- TM 520  Leadership in the Workplace
- MIL 303 Leadership Assessment and Development
Course

**Residential Construction Emphasis**
CMCET 332: Residential Design ............................... 3
CMCET 336: Residential Land Development ................ 3
CMCET 338: Residential Codes/Inspection .................. 3
CMCET 435: Residential Construction Methods
and Management ............................................... 3

**Safety Management Emphasis**
EST 512: Risk Assessment ...................................... 3
EST 630: Safety Management ................................... 3

*A grade of “C” or better is required for credit toward
graduation and to satisfy pre-requisite requirements in
all CMCET courses, MATH 113 College Algebra (or
equivalent), MATH 122 Plane Trigonometry (or
equivalent).*
Select 6 hours from
EST 326: Basic Electrical Safety ........................................3
EST 514: Industrial Hygiene ..................................................3
EST 516: Hazardous Materials .............................................3
EST 628: Fire Safety .........................................................3
EST 629: Legal Issues in Environmental Health and Safety .......3

Civil Construction Emphasis
CMCET 650: Civil Virtual Design and Construction ..............3
CMCET 651: Heavy/Highway/Bridge Construction ................3
CMCET 652: Utility Construction ..........................................3
CMCET 637: Construction Surveying II .................................3

Building Information Modeling (BIM) Emphasis
CMCET 340: Building Information Modeling (BIM) ..............3
GIT 334: 3D Graphics .......................................................3
GIT 530: 3D Animation and Rendering ..............................3
CMCET 640: BIM Management ..........................................3

Support Courses (21 hours)
MATH 113: College Algebra .............................................3
MATH 122: Plane Trigonometry .............................................3
ENGL 301: Technical/Professional Writing ............................3
CMCET 200: Cooperative Education (___) ..........................1-6
or CMCET 300: Cooperative Education (___) ....................3-6
or CMCET 400: Cooperative Education (___) ....................3-6
CMCET 530: Construction Cost Management ......................3
EST 396: Introduction to Construction Safety .........................3
EST 696: Construction Safety ..........................................3

- Approved Technical Elective (3 hours)

MATH 113 College Algebra is satisfied by general education.

Bachelor of Applied Science Degree with a Major in Technology
This program offers students who have graduated from a two-year associate degree technical program the opportunity to extend their education and training. All associate degree graduates (with a minimum of 2.50 GPA) can automatically transfer up to 64 college credits to Pittsburg State. Graduates receive a Bachelor of Applied Science degree with a major in technology and a selected emphasis by completing an additional minimum of 60 hours from PSU. The degree program content is based on previous academic and technical preparation.

Like two-year technical programs, this bachelor degree gives students complete, hands-on training for a real-world job. Students learn technology, theory, logic, leadership, and business skills to broaden their knowledge, and to better prepare them for management opportunities.

Coursework is both specialized and comprehensive. Emphasis areas are similar to the programs completed in the associate degrees. Technical emphases areas are Construction Emphasis and Environment and Safety Emphasis.

Basic Skills
COMM 207: Speech Communication .................................3
ENGL 101: English Composition .......................................3
ENGL 299: Introduction to Research Writing .......................3
or ENGL 301: Technical/Professional Writing .....................3

COMM 207 as well as ENGL 301 can have other courses substituted in their place.

Behavioral, Social, History & Political Studies
PSYCH 155: General Psychology .......................................3
or PSYCH 575: Industrial and Organizational Psychology ....3
SOC 100: Introduction to Sociology ..................................3
or POLS 101: U.S. Politics ................................................3
or HIST 201: American History to 1865 ............................3
or GT 350: Technology and Civilization .............................3
or TM 350: Societal Influence of Technology ......................3
or Social Science and/or Political Studies Elective (3 hours)
**Mathematics**
MATH 113: College Algebra ......................... 3
or MATH 114: Elements of Technical Analysis ........ 3
MATH 143: Elementary Statistics ..................... 3

MATH 114 as well as MATH 143 can be substituted by another mathematics course.

**Sciences (Minimum of 6 hours)**
BIOL 113: Environmental Life Science ................ 4
PHYS 171: Physical Science ........................................... 3
PHYS 172: Physical Science Laboratory ..................... 1

BIOL 113 can be substituted by another natural science course.

PHYS 171 can be substituted by another physical science course.

**Producing and Consuming**
ACCTG 201: Financial Accounting ..................... 3
or Approved business substitute (3 hours)

**Fine Arts (choose one)**
ART 178: Introduction to the Visual Arts ................. 3
COMM 105: Performance Appreciation ..................... 3
COMM 205: Performance Studies ............................... 3
HHP 151: Dance Appreciation ................................. 3
MUSIC 120: Music Appreciation (____) ....................... 3

- Approved Humanities (e.g., Ethics) (3 hours)

**Cultural Studies (choose one)**
GEOG 300: Elements of Geography ..................... 3
GEOG 304: Human Geography ................................. 3

- Approved elective from cultural studies (3 hours)

**Business Support Courses**

**Business Courses**
MGMKT 327: Organizational Theory and Behavior
................................................................................. 3
MGMKT 444: Legal and Social Environment of Business
................................................................................. 3
MGMKT 629: Human Resources Management ............ 3
or MGMKT 330: Basic Marketing ................................. 3

- Approved 300 and above business elective (e.g. TQM) (3 hours)

**Technical Courses**

**Construction Emphasis Courses**

**Workforce Development/Organization and Leadership courses**
TTED 606: Industrial Supervision ............................. 3
CMCET 400: Cooperative Education (____) .............. 3-6
TM 520: Leadership in the Workplace ....................... 3
ETECH 502: Engineering Economy ............................ 3
EST 396: Introduction to Construction Safety ............ 3
or approved substitute safety course

CMCET 400 Cooperative Education and ETECH 502
Engineering Economy must be taken for three hours each.

**Technical Specialization, Support and Electives**

**Construction Core Courses**
CMCET 334: Methods of Construction-Sitework and Steel
................................................................................. 3
CMCET 335: Methods of Construction-Concrete and Masonry
................................................................................. 3
CMCET 434: Civil Construction ................................. 3
Technical Electives (Select 12 hours from below)
CMCET 330: Mechanical Systems (HVAC) .................. 3
CMCET 331: Electrical Systems .......................... 3
CMCET 337: Construction Materials Testing and Inspection .................................................. 2
CMCET 537: Construction Surveying I .................. 3
CMCET 631: Construction Estimating I .................. 3
CMCET 634: Construction Management .................. 3
CMCET 635: Contract Administration .................. 3
CMCET 639: Construction Estimating II ............... 2

* CMCET 537 Requires Trigonometry

Electives (selected in consultation with advisor)**
Safety courses not taken to meet those credit hour requirements may be taken as Technical Electives.

EST 393: Introduction to Industrial Safety ............ 3
and EST 603: Industrial Safety .......................... 3
or EST 396: Introduction to Construction Safety .... 3
and EST 696: Construction Safety ....................... 3

**Actual number of credit hours per program component area is dependent on coursework previously completed as part of AAS, individual’s career goals, corporate partner requirements, and/or a combination of all these factors. All course selection decisions are made in consultation with academic advisor.

Environment and Safety Emphasis (Select 15 hours from below)
EST 512: Risk Assessment .................................. 3
EST 516: Hazardous Materials .......................... 3
EST 600: Fundamentals of Industrial Hygiene ........ 1-4
EST 604: Occupational Health and Safety .......... 3
EST 621: Ergonomics/Human Factors .................. 3
EST 627: Modern Transportation Safety ............ 3
EST 628: Fire Safety ....................................... 3
EST 629: Legal Issues in Environmental Health and Safety .................................................. 3
EST 630: Safety Management .......................... 3
TTED 308: Laboratory and Shop Safety ................ 3

Minor in Construction Technology
Total for minor in Construction Technology (23 hours)
CMCET 133: Construction Graphics ....................... 3
CMCET 234: The Construction Industry ................ 3
CMCET 235: Methods of Construction-Light Frame and Finishes ........................................ 2
CMCET 334: Methods of Construction-Sitework and Steel .................................................. 3
CMCET 335: Methods of Construction-Concrete and Masonry ......................................... 3
CMCET 434: Civil Construction .......................... 3
or CMCET 332: Residential Design ........................ 3
CMCET 631: Construction Estimating I ................ 3
CMCET 634: Construction Management ............... 3

Minor in Construction Technology for Interior Design
Total for Minor in Construction Technology for Interior Design (20 hours)
CMCET 133: Construction Graphics ....................... 3
CMCET 234: The Construction Industry ................ 3
CMCET 235: Methods of Construction-Light Frame and Finishes ........................................ 2

Workforce Development/Organization and Leadership courses
TTED 606: Industrial Supervision ........................... 3
CMCET 400: Cooperative Education (___) .......... 3-6
TM 520: Leadership in the Workplace .................. 3
ETECH 502: Engineering Economy .................... 2-3
EST 396: Introduction to Construction Safety .... 3
or approved substitute safety course

CMCET 400 Cooperative Education and ETECH 502 Engineering Economy must be taken for three hours each.

If EST 600 Fundamentals of Industrial Hygiene is chosen the course should be taken for three hours.
CMCET 330: Mechanical Systems (HVAC) .................3
CMCET 331: Electrical Systems ................................3
CMCET 332: Residential Design ............................3
or WT 682: Residential Construction Software:
Planning and Management ..................................3

**Approved elective selected from one of the following**

GIT 240: Page Layout Software ............................3
GIT 241: Image Composition Software ....................3
WT 301: Finishing ..............................................3
WT 523: Computer Applications in Cabinetmaking
.................................................................3
WT 691: Furniture Design and Development ..............3

**Minor in Construction Management**
Total for minor in Construction Management (22-23 hours)

CMCET 133: Construction Graphics ..........................3
CMCET 234: The Construction Industry ......................3
CMCET 235: Methods of Construction-Light
Frame and Finishes ...........................................2
CMCET 334: Methods of Construction-Sitework
and Steel .......................................................3
CMCET 335: Methods of Construction-Concrete
and Masonry ..................................................3
CMCET 631: Construction Estimating I ......................3
CMCET 634: Construction Management ....................3
or CMCET 635: Contract Administration .................3
CMCET 639: Construction Estimating II ....................2
or EST 396: Introduction to Construction Safety ...........3

**Construction Emphasis**
EST 396: Introduction to Construction Safety ..............3
EST 696: Construction Safety ..................................3

(Select 15 hours)

EST 512: Risk Assessment .....................................3
EST 514: Industrial Hygiene ....................................3
EST 516: Hazardous Materials ................................3
EST 604: Occupational Health and Safety .................3
EST 621: Ergonomics/Human Factors ......................3
EST 629: Legal Issues in Environmental Health and
Safety ............................................................3
EST 630: Safety Management ..................................3

**Master of Engineering Technology**
The Master of Engineering Technology degree is offered
under the direction of the Department of Engineering
Technology and offers programs in Construction,
Electronics, Manufacturing, Mechanical, and Plastics. In
addition to completing a set of core courses, the
students have the option of expanding their knowledge
in a specialty area or of conducting research concluding
with a thesis. Emphasis is placed on “real-world”
activities, projects, and interactions.

Our mission is to establish the Master in Engineering
Technology program at Pittsburg State University as the
premier graduate curriculum in engineering technology
in the Midwest region. We are committed to assisting
the University and the region in technology
development by providing a professional multi-
disciplinary team and project oriented approach to
graduate education. In order to accommodate working
professionals, the Master of Engineering Technology
degree is also offered through online course work.
Students completing their degree requirements online
receive the same educational value as students
physically present on campus in a prolonged course of
study.

**Goals and Objectives**
The main goal for the program is to endow the
graduates of the Master of Engineering Technology
degree with improved opportunities in their
professional careers and to better prepare them for
leadership positions.
Objective 1: Graduates will have acquired leadership skills. They will be more flexible, able to take initiative and have improved competence in problem solving and communication.

Objective 2: Graduates will have expanded their skills and knowledge in one or more of their specialty areas: Construction, Electronics, Manufacturing, Mechanical and Plastics.

Objective 3: Graduates will have improved their knowledge and appreciation of management practices, business decisions, professionalism and ethics.

Admission Requirements

Admission to the graduate program requires an undergraduate degree in Engineering, Engineering Technology or in a closely related area. Students must meet the University graduate admission requirements detailed in the University Catalog. International students must have a TOEFL score of 540 or higher. A minimum undergraduate grade point average of 2.70 is required unless the applicant has significant industrial experience. All transcripts will be evaluated prior to admission into the program.

Core Courses (Group 1- Required)
ETECH 804: Quality: Management and Control ..........3
ETECH 805: Current Issues in Engineering Technology .........................................................3
ETECH 807: Systems Engineering and Analysis ..........3
ETECH 809: Engineering Project Management ..........3
ETECH 810: Collaborative Projects for Engineering Technology ...........................................3
ETECH 831: Value Engineering .............................................3

Core Courses (Group 2- Select one course)
ETECH 852: Integrated Design and Manufacturing Concepts ................................................3
ETECH 899: Quantitative Decision Making in Industry .........................................................3

Construction Technical Emphasis

Emphasis Courses (minimum of 12 hours)

Option I: Research/Development/Thesis
ETECH 890: Research and Thesis ........................................3-6
TTED 891: Methods of Research ........................................3
ETECH 895: Advanced Topics in Engineering Technology .................................................1-6
or CMCET 895: Advanced Topics in Engineering Technology (___) ........................................1-6
ETECH 895 and CMCET 895 should be taken for 3-6 hours.

Option III: Technical Specialty Courses
CMCET 833: Estimating and Bidding Strategy ..........3
CMCET 834: Advanced Construction Management ..........................................................3
CMCET 836: Virtual Design and Construction (VDC) .........................................................3

- Approved Elective (3 hours)

Total minimum hours required for Master of Engineering Technology (33 hours)
Engineering Technology

Chairperson: Timothy Thomas
Professor(s): Henry Emadipour*, David Lomshek, James A. Lookadoo*,**, Philip McNew**, Russell Rosmait*,**, Robert Susnik*, Timothy Thomas*,**, Associate Professor(s): Paul Herring*, Erik Mayer, Randy Winzer
Assistant Professor(s): Rebeca Book, Ronny Galloway, Jacob Lehman, David J. Miller*, Greg Murray, Clark Shaver
Instructors: F. Brock Skaggs

*Graduate Faculty
**University Professor

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E-mail: etech@pittstate.edu

Undergraduate
Bachelor of Science in Engineering Technology Degree with a Major in Electronics Engineering Technology
Bachelor of Science in Engineering Technology Degree with a Major in Manufacturing Engineering Technology
Bachelor of Science in Engineering Technology Degree with a Major in Mechanical Engineering Technology
Bachelor of Science in Engineering Technology with a Major in Plastics Engineering Technology
Bachelor of Applied Science Degree with a Major in Technology
Minor in Electronic Technology
Minor in Manufacturing Management
Minor in Manufacturing Technology
Minor in Mechanical Technology
Minor in Plastics Technology

Graduate
Master of Engineering Technology

Introduction
The vision of the Department of Engineering Technology is to provide the highest quality engineering technology education to our students in preparation for professional careers in the engineering and technology industry, and to prepare our students to be active and responsible members of society. The department must be responsive to our key constituents’ interest through student and faculty interactions. The department recognizes the necessity to recruit the highest quality students, to provide a quality and safe educational experience, and to ultimately provide quality career opportunities for our graduates.

Mission
The Department of Engineering Technology provides undergraduate and graduate Engineering Technology education and services to the State of Kansas, to the surrounding Midwest region, and to expanding national and international regions. This is accomplished through the combined efforts of Engineering Technology programs in Electronics, Manufacturing, Mechanical, and Plastics. The Department of Engineering Technology is committed to assist the University in fulfilling its statewide mission in technology and economic development by providing applied research, training and consulting services to businesses and industries, and by developing, and providing educational associations with secondary/postsecondary educational institutions.

Programs
The Department of Engineering Technology offers four undergraduate engineering technology programs which are accredited by the Technology Accreditation Commission of ABET, http://www.abet.org.

Electronics Engineering Technology
Manufacturing Engineering Technology
Mechanical Engineering Technology
Plastics Engineering Technology

Graduates of the program receive a Bachelor of Science in Engineering Technology degree. They usually enter
into middle management/technical/engineering related careers in plastics, mechanical design, manufacturing, and electronics. Graduates typically have several job offers upon graduation.

The Master of Engineering Technology program is intended to help graduates improve management and leadership skills and decision making abilities in support of technology based industry.

**Engineering Technology**

Engineering technology is considered to be part of the overall engineering education spectrum and is commonly defined as that part of the technological field that requires the application of scientific and engineering knowledge and methods combined with technology skills in support of design and manufacturing activities. Pittsburg State University offers an "Engineering Technology" program as an alternative engineering education program.

**Laboratories**

The curriculum for engineering technology requires considerable applied experience in various industrial processes and software applications. To support this experience, each technical area is served by supporting laboratories that utilize current technology, software and equipment.

**Faculty/Students**

The faculty in the Department of Engineering Technology must have an earned baccalaureate and masters degree in engineering, engineering technology or a closely related field, and a minimum of three years industrial experience in technical areas related to the subjects they are teaching. Each technical area in the Department of Engineering Technology has a minimum of three full-time faculty members. Presently, there are nineteen (19) full-time faculty members in the department. The department has approximately 350 undergraduate and graduate majors.

**Professional Affiliations**

The faculty members are members of various professional organizations including:

American Society for Engineering Education (ASEE)
Society of Plastics Engineers (SPE)
Society for the Advancement of Materials and Process Engineers (SAMPE)
Society of Manufacturing Engineers (SME)
American Society of Mechanical Engineers (ASME)
IEEE
International Society of Automation (ISA)
Society of Women Engineers (SWE)
American Foundry Society (AFS)
Investment Casting Institute (ICI)
American Welding Society (AWS)
SAE International (SAE)

**Student Organizations**

Students in the Department of Engineering Technology have the opportunity to be involved with numerous student organizations. These student organizations/chapters include: Society of Women Engineers (SWE); IEEE; International Society of Automation (ISA); Society of Manufacturing Engineers (SME); Society of Plastics Engineers (SPE); Society for the Advancement of Materials and Process Engineering (SAMPE); American Foundry Society (AFS), SAE International.

**Advisory Councils**

Each program in the Department of Engineering Technology has its own industrial advisory board. The board members represent various industries and many are PSU alumni. The boards meet each semester to provide direction and input on program and curriculum issues.

**Technology Minors**

The technology minors in the Department of Engineering Technology require a minimum of 21
semester hours in a technical area. Minors are available in the following technical areas: electronics technology, manufacturing technology, mechanical technology, and plastics technology.

Changes in Requirements

Baccalaureate degree curriculums offered by the Department of Engineering Technology are periodically revised and updated. Such revisions will be communicated by the department to currently enrolled students majoring in its programs. Each student is required to graduate under the most recent curriculum in effect at the time of that student's graduation unless those revisions would extend the student's graduation date. Requests for exceptions to such curriculum revisions should be filed in writing with the department chairperson.

Prefixes for the Engineering Technology Department Programs:

EET denotes Electronics Engineering Technology courses.

ETECH denotes Engineering Technology courses.

MFGET denotes Manufacturing Engineering Technology courses.

MECET denotes Mechanical Engineering Technology courses.

PET denotes Plastics Engineering Technology courses.

Bachelor of Science in Engineering Technology Degree with a Major in Electronics Engineering Technology

Introduction

Our program strives to produce graduates who work in all segments of the electronics industry throughout the world. Electronics Engineering Technology graduates are valued for a wide variety of positions. Ongoing industry feedback insures we fulfill our mission to provide a quality degree for the electronics field. An important mechanism employed to assure this quality is our capstone experience. The capstone experience is a two semester sequence of designing and building a project that has market relevance and elements of student intellectual property. This helps assure that our graduates leave Pittsburg State University as competitors in their chosen field of study.

Facilities

The EET program is housed in the Kansas Technology Center. The KTC provides modern classroom and laboratory facilities supporting program focus areas in telecommunications, controls, embedded systems and aerospace electronics.

Mission

Our mission is to offer undergraduate education leading to a quality BSET degree in electronics.

Vision Statement

Graduates of Pittsburg State University’s Electronic Engineering Technology program enjoy a prima facie assumption as creative and effective technology implementers with the ability to successfully solve industry problems. Our graduating seniors are recruited as key industry investments for success.

Program Educational Objectives/Student Outcomes

Educational Objectives refer to common characteristics expected of program graduates in the first few years after graduation. Student Outcomes represent specific capabilities of students measured at appropriate times while in the program. These elements are periodically reviewed by the program's industrial advisory committee for relevance to regional industry needs.

Program Educational Objectives

The Electronics Engineering Technology program educational objectives state that Electronics Engineering Technology program graduates at a minimum will:

a. be sought after and employed by local and regional industry.

b. demonstrate the technical skills to support industry needs and/or solve technical problems.
c. demonstrate the knowledge and skill to operate across the breadth of the Electronics Engineering Technology discipline.

**Student Outcomes**

Each course in the Electronics Engineering Technology has defined specific measurable outcomes. In general, the outcomes support the following eleven capabilities that are expected of our graduates:

a. an ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities;

b. an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies;

c. an ability to conduct standard tests and measurement; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes;

d. an ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives;

e. an ability to function effectively as a member or leader on a technical team;

f. an ability to identify, analyze, and solve broadly-defined engineering technology problems;

g. an ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;

h. an understanding of the need for and an ability to engage in self-directed continuing professional development;

i. an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;

j. a knowledge of the impact of engineering technology solutions in a societal and global context; and

k. a commitment to quality, timeliness, and continuous improvement.

**Scholarships and Awards**

A number of scholarships are available, provided by both University and private funding. Students can apply for these scholarships through the campus information system, GUS. Student achievement is recognized through the annual awards process within the College of Technology. An outstanding senior from the EET program is recognized annually during the awards ceremony as a part of that process.

**Faculty**

The faculty members of the EET program have both teaching and industrial experiences within the electronics field. They routinely pursue professional development opportunities and are actively engaged with memberships in professional societies such as the IEEE, the American Society for Engineering Education and the International Society of Automation. The minimum requirements for faculty in the department are a master’s degree in an appropriate field and suitable industrial experience.

**Student Organizations**

Many students choose to participate in student organizations such as the Instrumentation Systems and Automation Society (ISA), Society of Women Engineers (SWE), and the IEEE. Members of these organizations have the opportunity for scholarships and to attend seminars of major companies.

**Advisory Committee**

The Electronics Engineering Technology program maintains an Industrial Advisory Committee composed of leaders from regional industry stakeholders. This committee meets twice a year to advise the program on industry trends and to provide feedback to students on their capstone projects. The current roster of this committee includes representatives from industries focused upon: Aircraft, Telecommunications,
Manufacturing, Energy, Biotechnology, and many others.

**Basic Skills (12 hours)**
ENGL 101: English Composition ................................. 3
ENGL 190: Honors English Composition .......................... 3
or ENGL 299: Introduction to Research Writing .................. 3
COMM 207: Speech Communication ............................... 3
MATH 143: Elementary Statistics ................................. 3

**General Education Electives (30-36 hours)**

**Sciences (9-10 hours)**

**Natural Sciences (Select one)**
BIOL 111: General Biology ........................................ 3
and BIOL 112: General Biology Laboratory ....................... 2
BIOL 113: Environmental Life Science ........................... 4
BIOL 211: Principles of Biology I ................................. 3

**Physical Sciences (Select one)**
PHYS 100: College Physics I ...................................... 4
or PHYS 104: Engineering Physics I ............................... 4
PHYS 130: Elementary Physics Laboratory I ..................... 1

**Social Studies (Select one) (3 hours)**
SOC 100: Introduction to Sociology .............................. 3
WOMEN 200: Introduction to Women’s Studies .................. 3

**Political Studies (3 hours)**
POLS 101: U.S. Politics ............................................. 3

**Producing and Consuming (6 hours)**

**Technology**
MFGET 263: Manufacturing Methods I .......................... 2
MFGET 268: Manufacturing Methods I Laboratory ............... 1
EET 247: Computer Programming for Electronic Systems ........ 3

**Fine Arts and Aesthetic Studies/Cultural Studies (Select one) (2-5 hours)**
ART 155: Printmaking and Paper Arts ......................... 3
ART 178: Introduction to the Visual Arts ......................... 3
ART 188: The Designed World ..................................... 3
ART 217: Crafts I .................................................. 3
ART 222: Jewelry Design I ......................................... 3
ART 233: Drawing I ................................................ 3
ART 244: Ceramics I .............................................. 3
ART 266: Sculpture I .............................................. 3
ART 277: Painting I ............................................... 3
ART 288: Western Art History I .................................... 3
ART 289: Western Art History II ................................... 3
ART 311: Art Education ............................................ 3
COMM 105: Performance Appreciation .......................... 3
COMM 205: Performance Studies .................................. 3
COMM 295: Theatre History (____) .............................. 3
ENGL 250: Introduction to Creative Writing .................... 3
HHP 151: Dance Appreciation ..................................... 3
MUSIC 120: Music Appreciation (____) .......................... 3
MUSIC 121: Introduction to Music Literature .................... 3
MUSIC 321: History of Music ..................................... 3
MLL 114: Chinese Language and Culture I ........................ 3
MLL 124: French Language and Culture I ........................ 5
MLL 154: Spanish Language and Culture I ........................ 5
MLL 184: Russian Language and Culture I ........................ 5
MLL 194: Korean Language and Culture I ........................ 5
GEOG 106: World Regional Geography ......................... 3
GEOG 300: Elements of Geography .............................. 3
GEOG 304: Human Geography .................................... 3
WOMEN 399: Global Women’s Issues ......................... 3

**Health and Well Being (4-6 hours)**

**Psychological**
PSYCH 155: General Psychology ................................. 3

**Physical (Select one)**
FCS 203: Nutrition and Health .................................... 3
FCS 301: Nutrition .................................................. 3
HHP 150: Lifetime Fitness Concepts ............................. 1
NURS 303: Introduction to Public Health ....................... 3
Human Heritage (Select one course from one of the following three categories) (3 hours)

History
HIST 101: World History to 1500 .................................. 3
HIST 102: World History from 1500 .................................. 3
HIST 201: American History to 1865 .................................. 3
HIST 202: American History from 1865 .................................. 3

Literature
ENGL 113: General Literature ........................................... 3
ENGL 114: General Literature (Genre) ................................. 3
ENGL 116: General Literature (Theme) ................................. 3
ENGL 315: Mythology ..................................................... 3
ENGL 320: Literature and Film ........................................... 3

Philosophy
PHIL 103: Introduction to Philosophy .................................. 3
PHIL 105: Ethics .............................................................. 3
PHIL 111: Ethics: Applied Emphasis (____) ............................ 3
PHIL 112: Biomedical Ethics .............................................. 3
PHIL 113: Business Ethics .................................................. 3
PHIL 114: Environmental Ethics ........................................... 3
PHIL 208: Logic and Critical Thinking .................................. 3
PHIL 231: World Religions .................................................. 3

Major Requirements (36 hours)
EET 100: Prolog to Electronics ............................................ 2
EET 144: D.C. Circuit Analysis Methods .................................. 3
EET 244: Logic Circuits .................................................... 3
EET 245: Electronic Devices and Circuits .................................. 3
EET 246: A.C. Circuit Analysis Methods .................................. 3
EET 299: Electronics Core Exam .......................................... 1
EET 341: Signals and Systems .............................................. 3
EET 344: Microcomputer Systems ........................................ 3
EET 349: Linear Integrated Circuits ....................................... 3
EET 447: Communications Theory and Circuits ....................... 3
EET 540: Electronic Design Proposal .................................... 3
EET 546: Electronic Controls ............................................... 3
EET 640: Application Design Problems .................................. 2
EET 642: Electronic Technology Seminar .............................. 1

Support Courses (29 hours)
MECET 121: Engineering Graphics I ...................................... 3
ETECH 502: Engineering Economy ....................................... 2-3
ETECH 694: Engineering Technology Laboratory Internship (____) ........................................... 1-4
MATH 126: Pre-Calculus ................................................... 4
MATH 150: Calculus I ....................................................... 5
MATH 155: Calculus II ....................................................... 5
ENGL 301: Technical/Professional Writing .............................. 3
PHYS 105: Engineering Physics II ........................................ 4
and PHYS 131: College Physics Laboratory II ......................... 1
or PHYS 132: Engineering Physics Laboratory II ................... 1

- EET 247 Computer Programming for Electronic Systems (satisfied by general education) (3 hours)
- MFGET 263 Manufacturing Methods I (satisfied by general education) (2 hours)
- MFGET 268 Manufacturing Methods I Laboratory (satisfied by general education) (1 hour)
- MATH 143 Elementary Statistics (satisfied by general education) (3 hours)
- EET 502 Engineering Economy must be taken for three hours.
- ETECH 694 Engineering Technology Laboratory Internship must be taken for 1 hour.

One Required Emphasis (12 hours)

Electronic Embedded Systems Emphasis
EET 449: Embedded Programmable Logic Devices ................ 3
EET 549: Embedded Microcontrollers ................................. 3
EET 647: Embedded Digital Signal Processing ........................ 3

- An additional course chosen from another EET emphasis area (3 hours)

Telecommunications Emphasis
EET 448: Network Systems ............................................... 3
EET 547: Electronic Communications Systems ...................... 3
EET 648: Data Communications Systems ............................. 3

- An additional course chosen from another EET emphasis area (3 hours)
Aerospace Electronics Emphasis
EET 547: Electronic Communications Systems .............3
EET 548: Aerospace Electronic Systems ......................3
EET 648: Data Communications Systems ......................3

- An additional course chosen from another EET emphasis area (3 hours)

Controls Emphasis
EET 549: Embedded Microcontrollers .........................3
EET 646: Control Systems ........................................3
EET 649: Advanced Programmable Controllers .............3

- An additional course chosen from another EET emphasis area (3 hours)

Custom Emphasis

- 6 hours chosen from other emphases options
- 6 hours upper division electives with advisor’s consent

Approved Electives Selected From (9 hours)
ETECH 300: Cooperative Education (____) .............3-6
CMCET 331: Electrical Systems ..................................3
EET 644: Renewable Power Conversion .......................3
MFGET 363: Principles of Tool Design ........................3
MFGET 405: Quality Control .....................................3
MECET 420: Kinematics ...........................................2
MECET 423: Mechanics of Materials ...........................3
MECET 424: Mechanics of Materials Laboratory ............1
MECET 524: Fluid Mechanics .....................................3
MECET 525: Fluid Mechanics Laboratory .....................1

or

- Upper division courses from the following
  - Mathematics, Physics, others by consent of advisor

In order to meet the requirements of the Technology Accreditation Commission of ABET, Inc., partial waivers for the PSU general education requirements have been allowed.

MATH 126 Pre-Calculus is preferred for support courses. MATH 113 College Algebra and MATH 122 Plane Trigonometry may be substituted.

Bachelor of Science in Engineering Technology Degree with a Major in Manufacturing Engineering Technology
The Manufacturing Engineering Technology program at Pittsburg State University is driven by the following:

The goal of the Manufacturing Engineering Technology Program is to become the leading source of manufacturing graduates, and to provide manufacturing knowledge for the state of Kansas, the region and the nation. The program will continue to generate graduates who quickly become valuable resources and leaders in their companies. The students, faculty and staff will be actively engaged in modern educational methods and applied research through interactions with industry, government agencies, and the community.

Guided by the above goal, measurable objectives have been established for the Manufacturing Engineering Technology Program.

Education Objectives/Outcomes

Objective: To produce valuable graduates.

The elemental objective for the PSU Manufacturing Engineering Technology program is to produce graduates who are valued by industry for their technical know how, leadership and communications skills. The achievement level in this objective is measured by closely monitoring the placement process of the graduating class every semester. A record of the placement status for each of our Manufacturing Engineering Technology graduating seniors is kept by the Engineering Technology office.
Objective: To offer an up-to-date curriculum.

The quality of the curriculum is measured using the TAC/ABET guidelines as a minimum, supplemented with twice-a-year formal consultation with the Industrial Advisory Committee (IAC), and continuous dialog between the faculty and industry experts. An indicator of the continuous improvement of the manufacturing curriculum is an annual curriculum review by the manufacturing staff and department chair.

Objective: To develop faculty in advanced manufacturing knowledge.

The faculty of the Manufacturing Engineering Technology program have over 125 years of combined teaching and industry experience within the Manufacturing field. Staying current is accomplished through memberships in professional societies. The faculty also regularly participate in NASA fellowships, industrial consulting and private applied research projects. Statistics are collected regularly as part of the annual faculty reviews.

Objective: To develop a strong association with industry.

A strong interaction between the program and industry is needed to ensure the alignment of the curriculum with the latest trends and technological developments. Measures of the level of interaction are the ratio of the number of faculty to the number of companies with which there is active interaction, the amount of scholarship funds from industry, and the level of continuing education activity offered or taken by the faculty.

Objective: To promote the program and participate in professional societies nationwide.

Promotion and dissemination of experiences in the educational, research, and professional communities are important to enhance the prestige of the program and Pittsburg State University. The achievement of this objective is measured by the level of participation of the faculty in educational conferences, research conferences, and outreach activities. Our faculty regularly participate in conferences sponsored by the Society for Manufacturing Engineers (SME), American Society for Engineering Education (ASEE), The American Foundry Society (AFS), The American Welding Society (AWS), and other related societies. Another indicator is the participation of the faculty in important roles in the professional societies. Our faculty hold positions in the local and national SME and AFS Chapters.

Introduction

The graduates of the Manufacturing Engineering Technology program work in all segments of manufacturing and industry throughout the world. Many companies recruit on campus and at annual career fairs both on and off campus. Our Manufacturing graduates are highly sought after for a variety of positions. One of the tools we employ to assure quality is our Senior Project or Capstone experience. This two semester, yearlong sequence is a design and build exercise with real world relevance. This helps assure that our graduates leave Pittsburg State University with tangible skills and are very competitive in the marketplace.

Facilities and Courses

The Manufacturing program is housed in the Kansas Technology Center. It provides modern classroom and laboratory facilities including: Welding, Fabrication, Metal Casting, Material Analysis, Machine Tools and CNC Laboratories. The courses in Manufacturing Engineering Technology emphasize application more than theoretical development and enhances classroom studies with hands-on, high-tech laboratories. A dedicated space is also provided for seniors to work on their Capstone projects.

Curricular Objectives

The Manufacturing Engineering Technology Program at Pittsburg State University will provide students with the following:

Objective 1: Graduates will have the ability to support and manage significant manufacturing operations by applying concepts of metal manufacturing, statistics, process automation, computer-aided design and manufacturing and organizational management.
Objective 2: Graduates will have the skills needed to work effectively in teams and as an individual.

Objective 3: Graduates will possess the ability to use appropriate mathematical and computational skills needed for engineering technology applications.

Objective 4: Graduates will possess the ability to use oral, graphical, and written communication skills to present and exchange information effectively and to direct manufacturing activities.

Objective 5: Graduates will have the ability to think critically and identify, evaluate and solve complex technical and non-technical problems.

Objective 6: Graduates will have a sense of professionalism that allows them to become informed and participating citizens cognizant of ethics, civic duty, and social responsibility.

The stated program Objectives are reviewed by the Manufacturing Engineering Technology Advisory Committee, once per calendar year, to evaluate their capability to serve the needs of the constituencies.

Outcomes

Each Manufacturing Engineering Technology graduate will be able to demonstrate desired attributes before graduation. The graduate will have:

Outcome 1: Students will demonstrate an appropriate mastery in manufacturing process planning, tool design, metal casting, quality control and computer-aided design and manufacturing.

Outcome 2: Students will demonstrate an understanding of fundamental applications of science and engineering principles.

Outcome 3: To participate in creative and critical thinking cross-discipline activities of manufacturing processes.

Outcome 4: Develop the ability to function effectively on teams and be able to exchange ideas with fellow classmates.

Outcome 5: Develop the ability to express ideas persuasively in written and oral form.

Approved by the Manufacturing Engineering Technology Faculty, October 1, 2008. Approved by the Manufacturing Engineering Technology Advisory Committee, October 31, 2008.

Scholarships and Awards

Student achievement is recognized through the annual awards process within the College of Technology. A number of scholarships are available, provided by both the University and private funding. Scholarships are awarded through the department by the Society of Manufacturing Engineers (SME), The Foundry Educational Foundation (FEF), and several other supporting organizations.

Student Organizations

Many students choose to participate in student organizations such as the American Foundry Society (AFS), Society of Automotive Engineers (SAE), Society of Women Engineers (SWE), and the Society of Manufacturing Engineers (SME). Members of these organizations have the opportunity for scholarships and the opportunity to attend seminars of major companies, such as Cessna, Sprint, and General Motors. The student organizations in Manufacturing Engineering Technology also regularly organize field trips to places such as NASA’s Marshall Space Center in Huntsville, Alabama, and travel to national conferences and local manufacturers such as Hawker Beechcraft and others.

Industrial Advisory Committee (IAC)

The Manufacturing Engineering Technology program maintains an Industrial Advisory Committee (IAC) composed of leaders from local and national industries. This committee meets twice a year to advise the program on industry trends and to provide feedback to students on their Capstone projects. The current roster of this committee includes representatives from such companies as Boeing, Copeland Industries, Hawker Beechcraft, Honeywell, and many others.
### Basic Skills (12 hours)
- COMM 207: Speech Communication ........................................... 3
- ENGL 101: English Composition ............................................. 3
- ENGL 190: Honors English Composition .................................... 3
- or ENGL 299: Introduction to Research Writing .......................... 3
- MATH 143: Elementary Statistics ............................................ 3

### General Education Electives (33 hours)

### Sciences (8 hours)

#### Natural Sciences
- BIOL 113: Environmental Life Science .................................... 4

#### Physical Sciences
- CHEM 105: Introductory Chemistry ....................................... 3
- and CHEM 106: Introductory Chemistry Laboratory ............... 1

### Social Studies (3 hours)
- SOC 100: Introduction to Sociology ....................................... 3

### Political Studies (3 hours)
- POLS 101: U.S. Politics ......................................................... 3

### Producing and Consuming (6 hours)

#### Technology
- MFGET 263: Manufacturing Methods I .................................... 2
- MFGET 268: Manufacturing Methods I Laboratory ................. 1

### Economy/Business (select one)
- ACCTG 201: Financial Accounting ......................................... 3
- MGMT 101: Introduction to Business ....................................... 3
- ECON 191: Issues in Today’s Economy .................................... 3

### Fine Arts and Aesthetic Studies (select one)

#### (3 hours)
- ART 155: Printmaking and Paper Arts .................................... 3
- ART 178: Introduction to the Visual Arts .................................. 3
- ART 188: The Designed World ............................................. 3
- ART 217: Crafts I ................................................................. 3
- ART 222: Jewelry Design I ................................................... 3
- ART 233: Drawing I .............................................................. 3
- ART 244: Ceramics I .............................................................. 3
- ART 266: Sculpture I .............................................................. 3
- ART 277: Painting I ............................................................... 3
- ART 288: Western Art History I ............................................. 3
- ART 289: Western Art History II ............................................ 3
- ART 311: Art Education ......................................................... 3
- COMM 105: Performance Appreciation ................................... 3
- COMM 205: Performance Studies ........................................... 3
- COMM 295: Theatre History (____) ......................................... 3
- ENGL 250: Introduction to Creative Writing ........................... 3
- HHP 151: Dance Appreciation ............................................ 3
- MUSIC 120: Music Appreciation (____) ................................. 3
- MUSIC 121: Introduction to Music Literature ......................... 2

### Cultural Studies (3 hours)
- GEOG 106: World Regional Geography ................................... 3

### Health and Well Being (4 hours)

#### Psychological
- PSYCH 155: General Psychology ......................................... 3

### Physical
- HHP 150: Lifetime Fitness Concepts ..................................... 1

### Human Heritage (3 hours)

#### Philosophy
- PHIL 105: Ethics ................................................................. 3

### Major Requirements (16 hours)

#### Technical Sciences
- MECET 220: Statics ......................................................... 3
- or PHYS 220: Engineering Mechanics I-Statics .................... 3
- MECET 420: Kinematics ..................................................... 2
- MECET 423: Mechanics of Materials .................................... 3
- MECET 424: Mechanics of Materials Laboratory .................. 1
- MECET 524: Fluid Mechanics ............................................. 3
- MECET 525: Fluid Mechanics Laboratory ............................ 1
- MFGET 564: Heat Treatment and Metallurgy I ..................... 3
Technical Specialties (Planned Sequences)

Tool Design
MGET 160: Manufacturing Graphics ......................... 3
MGET 261: Computer Aided Part Design .................... 3
MGET 363: Principles of Tool Design ......................... 3

Manufacturing Processes
- MGET 263 Manufacturing Methods I (satisfied by general education) (2 hours)
- MGET 268 Manufacturing Methods I Laboratory (satisfied by general education (1 hour)

MGET 367: Manufacturing Methods II ....................... 4
MGET 661: Computer Aided Manufacturing ................. 3
MGET 662: Computer Aided Manufacturing II ............ 2
MGET 690: Manufacturing Production Control and Management ............................................. 3

Metalcasting
MGET 567: Principles of Metalcasting ...................... 3
MGET 568: Metalcasting Processing Laboratory .......... 2
MGET 569: Casting Design and Simulation ................. 3

Capstone Experience
MGET 666: Manufacturing and Design Project I ........ 2
MGET 669: Manufacturing and Design Project II ....... 3

Technical Specialties
MGET 162: Welding Processes and Procedures .......... 3
MGET 405: Quality Control .................................... 3
ETECH 502: Engineering Economy .......................... 2-3
EET 141: Introductory Electronics ........................... 3
EET 340: Introduction to Industrial Automation .......... 3
ETECH 502 Engineering Economy must be taken for three hours.

Support Courses (19 hours)
- MATH 143 Elementary Statistics (satisfied by general education) (3 hours)

In order to meet the accreditation requirements of ABET, Inc., partial waivers from the PSU general education requirements have been allowed.

PHYS 104 Engineering Physics I is the preferred physics support course.

Bachelor of Science in Engineering Technology Degree with a Major in Mechanical Engineering Technology

Introduction
The program is planned as a four year Bachelor of Science in Engineering Technology degree with a Mechanical Engineering Technology major and design, manufacturing, or electromechanical emphasis. Thirty percent of the courses are general education requirements, twenty percent are basic mathematics/science requirements, and fifty percent of the courses are technical requirements. Classes are accomplishment oriented. The goal of instruction is to convert textbook information into real world solutions.

Mission
Our primary mission is to foster an alliance between students, faculty and industry, that will provide an ethical, efficient and knowledgeable graduate who has the ability to excel in a Mechanical Engineering Technology career. The Mechanical Engineering Technology program provides an applications oriented academic major that meets the ever-increasing requirements of an engineering education program, emphasizing topics generally considered a part of mechanical engineering technology, drafting, machine design, thermal science, fluid power, etc. Instruction focus includes 1) fundamental math, science and engineering subjects, 2) use of concepts and tools available to industry to support design and
manufacturing, 3) production of parts, components, or finished products and simulation of systems, 4) problem solving skills, and 5) team participation.

Career Opportunities

The Mechanical Engineering Technology program has had at or near 100% placement throughout the program’s history. Graduates typically take jobs with engineering titles working in product design, tool design, liaison, NC programming, manufacturing planning, system design/integration, etc. The graduates are popular with the aircraft, fluid power, equipment manufacturing, and automotive industry. Most job offers are from companies in Kansas and Missouri, however graduates from the program are working across the U.S. and around the world. Companies that have regularly recruited and employed our graduates include AGCO, Black & Veatch, ConocoPhillips, EN Engineering, La Barge, Inc., Lockheed Martin, and Hawker Beechcraft.

Faculty

The faculty are required to have appropriate degrees and industrial work experience. The group’s expertise covers the areas of machine design, heat transfer, fluid systems, rapid prototyping, graphic communications, and more. Their industrial experience includes aircraft system design and research and development, and industrial product design and manufacture, natural gas distribution systems design and installation.

Education Objectives/Outcomes

PSU Mechanical Engineering Technology Objectives and Outcomes, approved on October 15, 2010.

Objectives

Mechanical Engineering Technology Program graduates will:

1. be sought after and employed by local and regional industry

2. demonstrate the technical skills to support industry needs and/or solve technical problems

3. demonstrate the knowledge and skill to operate across the breadth of the mechanical engineering technology discipline.

Outcomes

Mechanical Engineering Technology Program students will demonstrate:

a. an appropriate mastery of the knowledge, techniques, skills, and modern tools to support design, analysis, manufacture and test of mechanical systems.

b. an ability to apply fundamental principles of math and science, current theoretical knowledge and adapt to the rapidly changing applications of engineering, and technology.

c. an ability to evaluate and improve system performance by conducting, analyze and interpret experiments, and evaluating experimental results.

d. ingenuity and resourcefulness in the modification and improvement of, or creation of designs of systems, components, or processes.

e. teamwork to support the conceptual design and development, and detailed design, analysis and manufacture (implementation) of a product (or process).

f. an ability to identify, analyze and solve technical problems associated with the design and manufacture of mechanical systems.

g. the ability to support information exchange on technical and project management topics through data files, reports and presentations.

h. an understanding of the need for and participation in continuing education and enhancement of professional knowledge.

i. awareness of professional, ethical and social responsibilities as it applies to careers in engineering technology.

j. a consideration for diversity and an idea of how their decisions could impact professional, societal and global issues today and in the future.
k. a commitment to getting a job done right, on time, and with a vision of improvement for the next generation product or process.

l. the ability to apply the principles of engineering graphics and machine design to the design, analysis and production of mechanical systems.

m. the awareness of varied applications in the mechanical engineering technology discipline and potential for integration of systems and processes with automotive, construction, electronics, manufacturing and plastics disciplines.

Advisory Council

The Mechanical Engineering Technology program maintains an Industrial Advisory Committee (IAC) composed of leaders from local and national industries. This committee meets twice a year to advise the program on industry trends and to provide feedback to students on their Capstone projects. The current roster of this committee includes representatives from such companies as Black & Veatch, Boeing, Cessna, Garmin International, John Deere, PowerFlame, Leggett & Platt, Lockheed Martin, and many others.

Basic Skills (13 hours)

COMM 207: Speech Communication .................3
ENGL 101: English Composition ....................3
ENGL 190: Honors English Composition ............3
or ENGL 299: Introduction to Research Writing ....3
MATH 126: Pre-Calculus ....................................4

General Education Electives (24-28 hours)

Sciences (9 hours)

Natural Sciences
BIOL 113: Environmental Life Science ...............4

Physical Sciences (Select one)
PHYS 100: College Physics I ..................................4
or PHYS 104: Engineering Physics I ..................4
PHYS 130: Elementary Physics Laboratory I ..........1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology ....................3
WOMEN 200: Introduction to Women’s Studies ....3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology .......................3

Physical (Select one)
FCS 203: Nutrition and Health .........................3
FCS 301: Nutrition ........................................3
HHP 150: Lifetime Fitness Concepts ....................1
NURS 303: Introduction to Public Health ............3

Producing and Consuming (5 hours)

Technology
MFGET 263: Manufacturing Methods I ...............2

Economy/Business (select one)
ACCTG 201: Financial Accounting ....................3
MGMKT 101: Introduction to Business .................3
ECON 191: Issues in Today's Economy .................3
ECON 200: Introduction to Microeconomics ..........3
or ECON 201: Introduction to Macroeconomics ....3

Select one course from Political Studies,
Fine Arts and Aesthetic Studies, Cultural
Studies or Human Heritage (3-5 hours)

Political Studies
POLS 101: U.S. Politics ......................................3

Fine Arts and Aesthetic Studies
ART 155: Printmaking and Paper Arts ...............3
ART 178: Introduction to the Visual Arts .............3
ART 188: The Designed World .........................3
ART 217: Crafts I ...........................................3
ART 222: Jewelry Design I .................................3
ART 233: Drawing I .........................................3
ART 244: Ceramics I ........................................3
ART 266: Sculpture I ........................................3
ART 277: Painting I ................................................. 3
ART 288: Western Art History I ........................... 3
ART 289: Western Art History II ......................... 3
ART 311: Art Education ....................................... 3
COMM 105: Performance Appreciation ............... 3
COMM 205: Performance Studies ...................... 3
COMM 295: Theatre History (___) ......................... 3
ENGL 250: Introduction to Creative Writing .......... 3
HHP 151: Dance Appreciation ............................ 3
MUSIC 120: Music Appreciation (___) ................. 3
MUSIC 321: History of Music ............................ 3

Cultural Studies

MLL 114: Chinese Language and Culture I ........... 5
MLL 124: French Language and Culture I ............ 5
MLL 154: Spanish Language and Culture I ........... 5
MLL 184: Russian Language and Culture I ........... 5
MLL 194: Korean Language and Culture I ........... 5
GEOG 106: World Regional Geography ................ 3
GEOG 300: Elements of Geography .................... 3
GEOG 304: Human Geography .......................... 3
WOMEN 399: Global Women's Issues ................ 3

Human Heritage

History

HIST 101: World History to 1500 ......................... 3
HIST 102: World History from 1500 ...................... 3
HIST 201: American History to 1865 ................... 3
HIST 202: American History from 1865 ............... 3

Literature

ENGL 113: General Literature ............................. 3
ENGL 114: General Literature (Genre) .................. 3
ENGL 116: General Literature (Theme) ................. 3
ENGL 315: Mythology ...................................... 3
ENGL 320: Literature and Film .......................... 3

Philosophy

PHIL 103: Introduction to Philosophy .................. 3
PHIL 105: Ethics ............................................ 3
PHIL 111: Ethics: Applied Emphasis (___) ............ 3
PHIL 112: Biomedical Ethics ............................. 3
PHIL 113: Business Ethics ............................... 3
PHIL 114: Environmental Ethics ........................ 3

PHIL 208: Logic and Critical Thinking .................. 3
PHIL 231: World Religions ............................... 3

Major Requirements

Technical Sciences (43 hours)

- MGET 263 Manufacturing Methods I (satisfied by general education) (2 hours)

MECET 121: Engineering Graphics I .................... 3
MECET 220: Statics ......................................... 3
or PHYS 220: Engineering Mechanics I-Statics ........ 3
MECET 226: Computer Aided Design .................. 3
MGET 268: Manufacturing Methods I Laboratory ................. 1
ETECH 296: Materials in Industry ....................... 3
MECET 323: Advanced Engineering Graphics .......... 3
EET 340: Introduction to Industrial Automation ........ 3
MECET 420: Kinematics .................................. 2
MECET 423: Mechanics of Materials .................. 3
MECET 424: Mechanics of Materials Laboratory .... 1
MECET 428: Thermodynamics .......................... 3
or PHYS 514: Applied Thermodynamics ............... 3
ETECH 502: Engineering Economy ...................... 2-3
MECET 523: Mechanical Design I ...................... 3
MECET 524: Fluid Mechanics ........................... 3
MECET 525: Fluid Mechanics Laboratory ............. 1
MGET 666: Manufacturing and Design Project I ....... 2
MGET 669: Manufacturing and Design Project II ...... 3

MECET 220 Statics and MECET 428 Thermodynamics is preferred.

ETECH 502 Engineering Economy must be taken for three hours.

Technical Specialties (Choose an emphasis)**

Emphasis I- Design (12 hours)

MECET 522: Dynamics ................................... 3
or PHYS 522: Engineering Mechanics II--Dynamics ................. 3
MECET 528: Computer Aided Modeling .........................3
MECET 623: Mechanical Design II ..........................3
MECET 682: Heat Transfer ........................................3
MECET 522 Dynamics is preferred.

**Student allowed.

ME C 523: Mechanical Design II ..........................3
ME C 524: Heat Transfer ........................................3
ME C 522 Dynamics is preferred.

In order to meet the requirements of the Technology Accreditation Commission of ABET, Inc., partial waivers for the PSU general education requirements have been allowed.

**Student must declare either design, manufacturing or electromechanical emphasis and follow emphasis sequence.

Support Courses (26 hours)

PHYS 101: College Physics II ........................................4
or PHYS 105: Engineering Physics II .........................4
PHYS 131: College Physics Laboratory II ....................1
CHEM 215: General Chemistry I .................................3
CHEM 216: General Chemistry I Laboratory ..................2
MATH 150: Calculus I ...........................................5
MATH 155: Calculus II ...........................................5
ENGL 301: Technical/Professional Writing ....................3
CIS 230: Visual Basic Programming ............................3
or CIS 240: C ++ Programming ................................3

PHYS 105 Engineering Physics II is preferred.

Approved Technical Electives (requires advisor's approval) (10 hours)

Total Hours for approval: (128-133 hours)

Bachelor of Science in Engineering Technology with a Major in Plastics Engineering Technology

The Plastics Engineering Technology major has two emphases: Manufacturing and Design which involve comprehensive coursework, involving practical and theoretical lectures with a strong emphasis on applied laboratory efforts in the areas of processing, resins, testing and design.

The coursework is designed to provide graduates for industry who are prepared to use their knowledge and skills of plastic materials, processes and related technology to help create the best possible quality products at the most economical cost. It is hoped that these same graduates will provide the continuation of this knowledge to colleagues and new employees as well as giving back to the Plastics Engineering Technology program in the future with their skills and other resources.

There is a continuing effort to encourage and provide students with internship opportunities and jobs, often during the summer, where they can increase their knowledge and experience and open doors for employment after graduation.

Student organizations where students can combine educational, career, social and leadership skill opportunities include SPE (Society of Plastics Engineers) and SAMPE (Society for the Advancement of Material and Process Engineering). These organizations have been very generous over the years in aiding students and programs with scholarship, monetary and educational support. SWE (Society of Women Engineers) is a third student organization that does an excellent job of supporting students.

Opportunities for employment in the Plastics Engineering Technology program include

In order to meet the requirements of the Technology Accreditation Commission of ABET, Inc., partial waivers for the PSU general education requirements have been allowed.

**Student must declare either design, manufacturing or electromechanical emphasis and follow emphasis sequence.

Support Courses (26 hours)

PHYS 101: College Physics II ........................................4
or PHYS 105: Engineering Physics II .........................4
PHYS 131: College Physics Laboratory II ....................1
CHEM 215: General Chemistry I .................................3
CHEM 216: General Chemistry I Laboratory ..................2
MATH 150: Calculus I ...........................................5
MATH 155: Calculus II ...........................................5
ENGL 301: Technical/Professional Writing ....................3
CIS 230: Visual Basic Programming ............................3
or CIS 240: C ++ Programming ................................3

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PHYS 101: College Physics II ........................................4
or PHYS 105: Engineering Physics II .........................4
PHYS 131: College Physics Laboratory II ....................1
CHEM 215: General Chemistry I .................................3
CHEM 216: General Chemistry I Laboratory ..................2
MATH 150: Calculus I ...........................................5
MATH 155: Calculus II ...........................................5
ENGL 301: Technical/Professional Writing ....................3
CIS 230: Visual Basic Programming ............................3
or CIS 240: C ++ Programming ................................3

PHYS 105 Engineering Physics II is preferred.
supervision/management, sales, process and design engineering, quality control, research and development and several other interesting and fulfilling careers.

**Mission**

To provide plastics graduates for industry who are prepared to use their knowledge and skills of plastic materials, processes and related technology.

**Vision Statement**

It is the vision of the Plastics Engineering Technology Program to provide the students with a quality education that will prepare them for a successful career in the Plastics industry.

**Educational Objectives/Outcomes**

PSU Plastics Engineering Technology Objectives and Outcomes were approved in March 2009.

**Objectives**

Plastics Engineering Technology Program graduates will have the ability to:

1. support and manage plastic manufacturing operations including product development, plastics processing, project management, equipment selection, tooling selection.

2. work effectively in diverse teams and as individuals.

3. use appropriate scientific/mathematical and computational skills necessary for plastics applications.

4. use oral, graphical, and written communications skills to present and exchange information effectively, and to direct plastics processing operations.

5. think critically and identify, evaluate and solve complex technical and non-technical problems.

6. understand and apply professional, ethical, and quality standards of excellence consistent with the plastics industry (SPE code of Ethics).

**Outcomes**

Plastic Engineering Technology Program students will be able to demonstrate desired attributes before graduation (related to the TAC/ABET Criteria 3 a-k). The graduate will have:

a. an ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities common to the plastics industry;

b. an ability to select and apply a knowledge of mathematics, chemistry, physics, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies;

c. an ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to **improve processes**;

d. an ability to design systems, components, or processes for broadly-defined engineering technology **problems** appropriate to program educational objectives;

e. an ability to function effectively as a member or leader on a technical team;

f. an ability to **identify, analyze,** and **solve** broadly-defined engineering technology **problems**;

g. an ability to apply written, oral, and graphical communication in both technical and nontechnical environments; and an ability to identify and use appropriate technical literature;

h. an understanding of the need for and an ability to engage in **self-directed continuing professional development**;

i. an understanding of and a commitment to address **professional and ethical responsibilities** including a respect for diversity;

j. a knowledge of the **impact** of engineering technology solutions in a **societal and global** context; and

k. a commitment to **quality, timeliness,** and **continuous improvement**.
### Basic Skills (12 hours)

- COMM 207: Speech Communication ........................................ 3
- ENGL 101: English Composition ............................................. 3
- ENGL 190: Honors English Composition .................................. 3
- or ENGL 299: Introduction to Research Writing ...................... 3
- MATH 143: Elementary Statistics ........................................... 3

### General Education Electives (24-29 hours)

### Sciences (9-10 hours)

#### Natural Sciences (Select one)

- BIOL 111: General Biology .................................................. 3
- and BIOL 112: General Biology Laboratory .............................. 2
- BIOL 113: Environmental Life Science .................................... 4
- BIOL 211: Principles of Biology I .......................................... 4

#### Physical Sciences (Select one)

- PHYS 100: College Physics I ................................................ 4
- or PHYS 104: Engineering Physics I ....................................... 4
- PHYS 130: Elementary Physics Laboratory I ........................... 1

#### Social Studies (Select one) (3 hours)

- SOC 100: Introduction to Sociology ....................................... 3
- WOMEN 200: Introduction to Women’s Studies ....................... 3

#### Health and Well Being (4-6 hours)

#### Psychological

- PSYCH 155: General Psychology .......................................... 3

#### Physical (Select one)

- FCS 203: Nutrition and Health ............................................ 3
- FCS 301: Nutrition .............................................................. 3
- HHP 150: Lifetime Fitness Concepts ...................................... 1
- NURS 303: Introduction to Public Health ................................ 3

### Producing and Consuming (5 hours)

#### Technology

- MFGET 263: Manufacturing Methods I .................................. 2

### Economy/Business (select one)

- ACCTG 201: Financial Accounting ........................................ 3
- MGMKT 101: Introduction to Business .................................... 3
- ECON 191: Issues in Today’s Economy .................................. 3

### Select one course from Political Studies,
Fine Arts and Aesthetic Studies, Cultural Studies or Human Heritage (3-5 hours)

#### Political Studies

- POLS 101: U.S. Politics ....................................................... 3

#### Fine Arts and Aesthetic Studies

- ART 155: Printmaking and Paper Arts .................................... 3
- ART 178: Introduction to the Visual Arts ................................ 3
- ART 188: The Designed World ............................................. 3
- ART 217: Crafts I ............................................................... 3
- ART 222: Jewelry Design I .................................................. 3
- ART 233: Drawing I ............................................................ 3
- ART 244: Ceramics I ............................................................ 3
- ART 266: Sculpture I ............................................................ 3
- ART 277: Painting I ............................................................. 3
- ART 288: Western Art History I ............................................ 3
- ART 289: Western Art History II ......................................... 3
- ART 311: Art Education ...................................................... 3
- COMM 105: Performance Appreciation .................................. 3
- COMM 205: Performance Studies .......................................... 3
- COMM 295: Theatre History (___) ........................................ 3
- ENGL 250: Introduction to Creative Writing ............................ 3
- HHP 151: Dance Appreciation ............................................. 3
- MUSIC 120: Music Appreciation (___) .................................. 3
- MUSIC 321: History of Music .............................................. 3

### Cultural Studies

- MLL 114: Chinese Language and Culture I ............................ 5
- MLL 124: French Language and Culture I ............................ 5
- MLL 154: Spanish Language and Culture I ............................ 5
- MLL 184: Russian Language and Culture I ............................ 5
- MLL 194: Korean Language and Culture I ............................ 5
- GEOG 106: World Regional Geography .................................. 3
- GEOG 300: Elements of Geography ...................................... 3
- GEOG 304: Human Geography ............................................ 3
- WOMEN 399: Global Women’s Issues .................................. 3
Human Heritage

History
HIST 101: World History to 1500 ........................................... 3
HIST 102: World History from 1500 .................................... 3
HIST 201: American History to 1865 .................................. 3
HIST 202: American History from 1865 ............................ 3

Literature
ENGL 113: General Literature ........................................... 3
ENGL 114: General Literature (Genre) ............................... 3
ENGL 116: General Literature (Theme) ............................. 3
ENGL 315: Mythology .................................................... 3
ENGL 320: Literature and Film ......................................... 3

Philosophy
PHIL 103: Introduction to Philosophy ................................ 3
PHIL 105: Ethics ......................................................... 3
PHIL 111: Ethics: Applied Emphasis (___) .......................... 3
PHIL 112: Biomedical Ethics ........................................... 3
PHIL 113: Business Ethics ............................................. 3
PHIL 114: Environmental Ethics ....................................... 3
PHIL 208: Logic and Critical Thinking .............................. 3
PHIL 231: World Religions ............................................. 3

Major Requirements

Technical Sciences (16 hours)
MECET 121: Engineering Graphics I ..................................... 3
and MECET 226: Computer Aided Design .......................... 3
or MFGT 160: Manufacturing Graphics ........................... 3
and MFGT 261: Computer Aided Part Design ................... 3
EET 141: Introductory Electronics ...................................... 3
ETECH 502: Engineering Economy ................................... 2-3
MECET 524: Fluid Mechanics ......................................... 3
MECET 525: Fluid Mechanics Laboratory .......................... 1
ETECH 502 Engineering Economy must be taken for three hours.

Technical Specialties (36 hours)
PET 180: General Plastics Laboratory .............................. 1
PET 185: General Plastics ............................................. 3
PET 281: Plastics Testing Technology ................................ 3
PET 370: Thermoplastic Resins Laboratory ....................... 1

PET 371: Thermoplastic Resins ........................................ 3
PET 372: Plastic Processing I Laboratory .......................... 1
PET 373: Plastic Processing I .......................................... 3
PET 374: Thermoset Resins Laboratory ............................ 1
PET 375: Thermoset Resins ........................................... 3
PET 376: Plastic Processing II Laboratory ......................... 1
PET 377: Plastic Processing II ........................................ 3
PET 585: Mold Design .................................................. 3
PET 586: Senior Project ................................................ 3
PET 684: Plastics Part Design ......................................... 3
PET 685: Composites .................................................... 3
MFGT 268: Manufacturing Methods I Laboratory ............... 1

- MFGT 263 Manufacturing Methods I (satisfied by general education) (2 hours)

Choose One Support Emphasis***

Emphasis I- Manufacturing (13 hours)

- MATH 143 Elementary Statistics (satisfied by general education) (3 hours)
MATH 126: Pre-Calculus ................................................. 4
MFGT 405: Quality Control ............................................. 3
EET 393: Introduction to Industrial Safety ........................ 3
or EET 603: Industrial Safety .............................. 3
EET 340: Introduction to Industrial Automation ............. 3

Emphasis II- Design (20 hours)
MATH 155: Calculus II .................................................. 5
MECET 220: Statics ...................................................... 3
or PHYS 220: Engineering Mechanics I-Statics .............. 3
MECET 420: Kinematics .............................................. 2
MECET 423: Mechanics of Materials .............................. 3
MECET 424: Mechanics of Materials Laboratory ............ 1
PHYS 514: Applied Thermodynamics ............................ 3
MECET 523: Mechanical Design I ................................. 3

***Student must declare either manufacturing or design option and follow option sequence.
Support Courses (23 hours)
ENGL 301: Technical/Professional Writing .................. 3
MATH 150: Calculus I ........................................... 5
CHEM 215: General Chemistry I ................................. 3
CHEM 216: General Chemistry I Laboratory .................. 2
CHEM 320: Introductory Organic Chemistry .................. 3
CHEM 326: Organic Chemistry Laboratory ................... 2
CHEM 620: Polymer Chemistry .................................. 3
CHEM 621: Polymer Chemistry Laboratory ................... 2

Total- Manufacturing Option (124 minimum hours)

Total- Design Option (131 minimum hours)

In order to meet the accreditation requirements of the ABET, Inc., partial waivers for the PSU general education requirements have been allowed.

PHYS 104 Engineering Physics I is the preferred physical science course.

MATH 126 Pre-Calculus is preferred; MATH 113 College Algebra AND MATH 122 Plane Trigonometry may be substituted.

Upon completion of required courses a minor in Physical Science will be awarded.

Bachelor of Applied Science Degree with a Major in Technology
This program offers students who have graduated from a two-year associate degree technical program the opportunity to extend their education and training. All associate degree graduates (with a minimum of 2.50 GPA) can automatically transfer up to 64 college credits to Pittsburg State. Graduates receive a Bachelor of Applied Science degree with a major in technology and a selected emphasis by completing an additional minimum of 60 hours from PSU. The degree program content is based on previous academic and technical preparation.

Like two-year technical programs, this bachelor degree gives students complete, hands-on training for a real-world job. Students learn engineering technology, theory, logic, leadership, and business skills to broaden their knowledge, and to better prepare them for management opportunities.

Coursework is both specialized and comprehensive. Emphasis areas are similar to the programs completed in the associate degrees. Technical emphases areas through the Engineering Technology department are Electronics Emphasis, Manufacturing Emphasis, Mechanical Emphasis, and Plastics Emphasis.

Basic Skills
COMM 207: Speech Communication ......................... 3
ENGL 101: English Composition .............................. 3
ENGL 299: Introduction to Research Writing ................. 3
or ENGL 301: Technical/Professional Writing ............... 3

COMM 207 as well as ENGL 301 can have other courses substituted in their place.

Behavioral, Social, History & Political Studies
PSYCH 155: General Psychology ............................. 3
or PSYCH 680: Human Relations in the Workplace .......... 3
SOC 100: Introduction to Sociology ......................... 3
or POLS 101: U.S. Politics .................................. 3
or HIST 201: American History to 1865 ..................... 3
or GT 350: Technology and Civilization ..................... 3
or TM 350: Societal Influence of Technology ................. 3
or Social Science and/or Political Studies Elective (3 hours)

Mathematics
MATH 114: Elements of Technical Analysis ................ 3
or MATH 113: College Algebra ............................. 3
MATH 143: Elementary Statistics ........................... 3

MATH 114 as well as MATH 143 can be substituted by another mathematics course.
Sciences (Minimum of 6 hours)
BIOL 113: Environmental Life Science ......................... 4
PHYS 171: Physical Science ........................................ 3
PHYS 172: Physical Science Laboratory .......................... 1

BIOL 113 can be substituted by another natural science course.

PHYS 171 can be substituted by another physical science course.

Producing and Consuming
ACCTG 201: Financial Accounting ................................ 3
or Approved business substitute (3 hours)

Fine Arts (choose one)
ART 178: Introduction to the Visual Arts .......................... 3
COMM 105: Performance Appreciation ............................ 3
COMM 205: Performance Studies .................................... 3
HHP 151: Dance Appreciation ....................................... 3
MUSIC 120: Music Appreciation (____) ........................... 3

• Approved Humanities (e.g., Ethics) (3 hours)

Cultural Studies (choose one)
GEOG 300: Elements of Geography ............................... 3
GEOG 304: Human Geography ....................................... 3

• Approved elective from cultural studies (3 hours)

Business Support Courses

Business Courses
MGMKT 327: Organizational Theory and Behavior
................................................................. 3
MGMKT 444: Legal and Social Environment of Business
......................................................................... 3
MGMKT 629: Human Resource Management .................. 3
or MGMKT 330: Basic Marketing ................................. 3

• Approved 300 and above business elective (e.g. TQM) (3 hours)

Technical Courses

Electronics Emphasis Courses

Workforce Development/Organization and Leadership courses (Electronics Emphasis)
TTED 606: Industrial Supervision ................................. 3
ETECH 400: Cooperative Education (____) .................... 3-6
or ETECH 694: Engineering Technology Laboratory Internship (____) ........................................ 1-4
ETECH 502: Engineering Economy ............................... 2-3
TM 520: Leadership in the Workplace ........................... 3
EST 393: Introduction to Industrial Safety ........................ 3
or approved substitute safety course

ETECH 400 Cooperative Education or ETECH 694 Engineering Technology Laboratory Internship must be taken for three hours.

ETECH 502 Engineering Economy must be taken for three hours.

Technical Specialization, Support and Electives
EET 340: Introduction to Industrial Automation ............ 3
EET 344: Microcomputer Systems ................................ 3
EET 349: Linear Integrated Circuits .............................. 3
EET 447: Communications Theory and Circuits ............ 3
EET 448: Network Systems ......................................... 3
EET 546: Electronic Controls ........................................ 3
EET 649: Advanced Programmable Logic Controllers
............................................................................... 3

Manufacturing Emphasis Courses

Workforce Development/Organization and Leadership courses (Manufacturing Emphasis)
TTED 606: Industrial Supervision ................................. 3
ETECH 400: Cooperative Education (____) .................... 3-6
ETECH 502: Engineering Economy ........................................ 2-3
TM 520: Leadership in the Workplace .................................... 3
EST 393: Introduction to Industrial Safety ................................ 3
or approved substitute safety course

ETECH 400 Cooperative Education must be taken for three hours.

ETECH 502 Engineering Economy must be taken for three hours.

Technical Specialization, Support and Electives

Manufacturing Core Courses
MFGET 405: Quality Control .................................................. 3
MFGET 690: Manufacturing Production Control and Management .................................................. 3

Technical Electives (15 hours)
MFGET 363: Principles of Tool Design .................................... 3
MFGET 567: Principles of Metalcasting .................................... 3
MFGET 568: Metalcasting Processing Laboratory ....................... 2
MFGET 569: Casting Design and Simulation ............................ 3
MFGET 661: Computer Aided Manufacturing .......................... 3

- Approved Electives (3-6 hours)

(Approved Electives depend on mathematics and science prerequisites)

Mechanical Emphasis Courses

Workforce Development/Organization and Leadership courses (Mechanical Emphasis)
TTED 606: Industrial Supervision ........................................ 3
ETECH 400: Cooperative Education (___) ............................ 3-6
ETECH 502: Engineering Economy ........................................ 3
TM 520: Leadership in the Workplace .................................... 2-3
EST 393: Introduction to Industrial Safety ................................ 3
or approved substitute safety course

ETECH 400 Cooperative Education must be taken for three hours.

ETECH 502 Engineering Economy must be taken for three hours.
Technical Specialization, Support and Electives

Plastics Core Courses
PET 281: Plastics Testing Technology .................................. 3
CHEM 320: Introductory Organic Chemistry. ...................... 3
CHEM 326: Organic Chemistry Laboratory. ......................... 2
PET 370: Thermoplastic Resins Laboratory .......................... 1
PET 371: Thermoplastic Resins ........................................... 3
PET 372: Plastic Processing I Laboratory ............................. 1
PET 373: Plastic Processing I ............................................. 3

Technical Electives (Choose 5 hours from the following)
CHEM 620: Polymer Chemistry. ........................................ 3
CHEM 621: Polymer Chemistry Laboratory .......................... 2
PET 374: Thermoset Resins Laboratory ............................... 1
PET 375: Thermoset Resins ............................................... 3
PET 376: Plastic Processing II Laboratory ............................ 1
PET 377: Plastic Processing II ........................................... 3

Minor in Electronic Technology
- Electronics Elective (3 hours)
- EET 300 Level or Higher Course (3 hours)
EET 141: Introductory Electronics ..................................... 3
EET 144: D.C. Circuit Analysis Methods ............................. 3
EET 244: Logic Circuits .................................................... 3
EET 245: Electronic Devices and Circuits ............................. 3
EET 246: A.C. Circuit Analysis Methods .............................. 3

Minor in Manufacturing Management
MFGET 160: Manufacturing Graphics ............................... 3
MFGET 263: Manufacturing Methods I ............................... 2
MFGET 268: Manufacturing Methods I Laboratory ............... 1
ETECH 296: Materials in Industry ........................................ 3
MFGET 367: Manufacturing Methods II ............................... 4
MFGET 405: Quality Control ............................................ 3
MFGET 661: Computer Aided Manufacturing ........................ 3
MFGET 690: Manufacturing Production Control and Management .................................................. 3

Minor in Manufacturing Technology
- Other Manufacturing Courses (10 hours)
MFGET 263: Manufacturing Methods I ............................... 2
MFGET 268: Manufacturing Methods I Laboratory ............... 1
MFGET 564: Heat Treatment and Metallurgy I ....................... 3
MFGET 567: Principles of Metalcasting ................................ 3
MFGET 568: Metalcasting Processing Laboratory .................. 2
MFGET 661: Computer Aided Manufacturing ........................ 3

Minor in Mechanical Technology
MECET 121: Engineering Graphics I .................................. 3
MECET 220: Statics ......................................................... 3
or PHYS 220: Engineering Mechanics I-Statics .................... 3
MECET 226: Computer Aided Design ................................ 3
MECET 323: Advanced Engineering Graphics ........................ 3
MECET 420: Kinematics .................................................. 2
MECET 423: Mechanics of Materials ................................. 3
MECET 523: Mechanical Design I ..................................... 3
MECET 623: Mechanical Design II .................................... 3

Minor in Plastics Technology
PET 185: General Plastics ................................................. 3
and PET 180: General Plastics Laboratory .......................... 1
PET 281: Plastics Testing Technology .................................. 3
PET 371: Thermoplastic Resins ......................................... 3
and PET 370: Thermoplastic Resins Laboratory ................. 1
PET 373: Plastic Processing I ............................................ 3
and PET 372: Plastic Processing I Laboratory ...................... 1
PET 375: Thermoset Resins ............................................. 3
and PET 374: Thermoset Resins Laboratory ...................... 1
PET 377: Plastic Processing II .......................................... 3
and PET 376: Plastic Processing II Laboratory .................... 1
PET 585: Mold Design .................................................... 3

Master of Engineering Technology
The Department of Engineering Technology offers a Master of Engineering Technology degree. This is accomplished through the combined efforts of Engineering Technology programs in Construction, Electronics, Manufacturing, Mechanical, and Plastics. In addition to completing a set of core courses, the students have the option of expanding their knowledge in a specialty area or of conducting research concluding
with a thesis. Emphasis is placed on “real-world” activities, projects, and interactions. The completion of the program will prepare students for professional careers in engineering technology.

Our mission is to establish the Master in Engineering Technology program at Pittsburg State University as the premier graduate curriculum in engineering technology in the Midwest region. We are committed to assisting the University and the region in technology development by providing a professional multi-disciplinary team and project oriented approach to graduate education. In order to accommodate working professionals, the Master of Engineering Technology degree is also offered through online course work. Students completing their degree requirements online receive the same educational value as students physically present on campus in a prolonged course of study.

Program Objectives

The Program Educational Objectives (PEO’s) for the Master of Engineering Technology Program are to produce graduates who will:

1. be sought after for leadership or decision making positions.

2. participate in continuing education or graduate studies.

3. incorporate state-of-the-art-technology and new technology in their chosen profession.

Student Learning Outcomes

1. Students demonstrate an ability to apply multidisciplinary knowledge, and modern tools to complex engineering technology activities.

2. Students demonstrate an ability to apply advanced mathematics, science and engineering technology to business and engineering technology problems as required.

3. Students demonstrate an ability to design, conduct studies and simulations and apply results to general advanced business and engineering technology problems consistent with program objectives.

4. Students demonstrate an ability to provide project leadership, apply management skills, and support complex decision making.

5. Students demonstrate the ability to communicate effectively in both technical and general business setting.

6. Students demonstrate understanding of environmental, social and ethical issues in a world wide business setting.

Admission Requirements

Admission to the graduate program requires an undergraduate degree in Engineering, Engineering Technology or in a closely related area. Students must meet the University graduate admission requirements detailed in the University Catalog. International students must have a TOEFL score of 540 or higher. A minimum undergraduate grade point average of 2.70 is required unless the applicant has significant industrial experience. All transcripts will be evaluated prior to admission into the program.

Core Courses (Group 1 - Required)

ETECH 804: Quality: Management and Control ............ 3
ETECH 805: Current Issues in Engineering Technology ......................................................... 3
ETECH 807: Systems Engineering and Analysis ............ 3
ETECH 809: Engineering Project Management .......... 3
ETECH 810: Collaborative Projects for Engineering Technology ......................................................... 3
ETECH 831: Value Engineering ......................................................... 3

Core Courses (Group 2 - Select one course)

ETECH 852: Integrated Design and Manufacturing Concepts ......................................................... 3
ETECH 899: Quantitative Decision Making in Industry ......................................................... 3

ETECH 899 is required for Manufacturing and Mechanical emphasis areas.

Emphasis Courses (minimum of 12 hours)
Option I: Research/Development/Thesis
ETECH 890: Research and Thesis .............................................. 3-6
TTED 891: Methods of Research .............................................. 3
ETECH 895: Advanced Topics in Engineering Technology .............................................. 1-6
or CMCET 895: Advanced Topics in Engineering Technology (___) .............................................. 1-6
ETECH 895 and CMCET 895 should be taken for 3-6 hours.

Option III: Technical Specialty Courses

Construction Technical Emphasis
CMCET 833: Estimating and Bidding Strategy .............................................. 3
CMCET 834: Advanced Construction Management .............................................. 3
CMCET 836: Virtual Design and Construction (VDC) .............................................. 3
• Approved Elective (3 hours)

Electronics Technical Emphasis
EET 842: Programmable Logic Devices .............................................. 3
EET 843: Advanced Engineering Electromagnetics .............................................. 3
EET 845: Advanced Microprocessor Systems and Applications .............................................. 3
• Approved Elective (3 hours)

Manufacturing Technical Emphasis
ETECH 852: Integrated Design and Manufacturing Concepts .............................................. 3
ETECH 880: Advanced Engineering Materials .............................................. 3
ETECH 888: Design of Experiments .............................................. 3
• Approved Elective (3 hours)

Mechanical Technical Emphasis
ETECH 852: Integrated Design and Manufacturing Concepts .............................................. 3
MECET 861: Mechanics of Composites and Structures .............................................. 3
MECET 862: Alternative Energy Concepts .............................................. 3
• Approved Elective (3 hours)

Plastics Technical Emphasis
PET 885: Composite Materials and Testing .............................................. 3
ETECH 888: Design of Experiments .............................................. 3
• Approved Elective (6 hours)

Total minimum hours required for Master of Engineering Technology (33 hours)
Graphics and Imaging Technologies

Chairperson: Barry J. Wilson
Professor(s): James S. Sours*
Associate Professor(s): Barry J. Wilson, Doug Younger
Assistant Professor(s): Christel Benson, Chris Huitt, David Oldham, Akram Taghavi-Burris, Jason R. Ward
Instructors: Robert L. Ferro, Linda K. Grilz

*Graduate Faculty

Room E116 KTC
Telephone: 620-235-4420
Fax: 620-235-4413
http://www.pittstate.edu/department/graphics/
E-mail: bwilson@pittstate.edu

Undergraduate

Bachelor of Science in Technology Degree with a Major in Graphic Communications: Digital Media Emphasis
Bachelor of Science in Technology Degree with a Major in Graphic Communications: Graphic Design Emphasis
Bachelor of Science in Technology Degree with a Major in Graphic Communications: Graphics Management Emphasis
Bachelor of Science in Technology Degree with a Major in Graphic Communications: Print Media Emphasis
Bachelor of Science of Technology Degree with a Major in Graphic Communications: Web/Interactive Media Emphasis
Bachelor of Applied Science Degree with a Major in Technology: Digital and Print Media Emphasis
Minor in Digital Media
Minor in Graphic Design
Minor in Photography
Minor in Print Media
Minor in Web/Interactive Media

Graduate

Master of Science Degree with a Major in Technology: Printing Management Emphasis

Introduction

The Department of Graphics and Imaging Technologies provides the future workforce for the graphics and imaging industries. It is our intent to provide students with the type of education that makes them marketable anywhere in these industries.

Mission

The mission of the Department of Graphics and Imaging Technologies is to be the leading educational institution in the Central United States for the advancement of technical knowledge for the graphics and imaging industries.

Vision

The vision of the Department of Graphics and Imaging Technologies is to provide a technical, hands-on curriculum involving the input, manipulation, output and administration of images and information.

Laboratories

The Kansas Technology Center houses the Department of Graphics and Imaging Technologies. The Center is enhanced with state-of-the-art equipment in laboratories available for the education of future professionals. There are specific laboratories for computer graphics, digital media, audio/video software and hardware, graphic design, graphics management, traditional and digital printing, screen printing, photography, and web/interactive media.

Student-Faculty Ratio

A ratio of 20 to 1 (students to faculty) is maintained to allow for separate work stations and intensive individualized instruction. It also provides the time for in-depth discussion, student review and advisement that defines a quality program. The department expects students to be committed to their studies and motivated to gain the knowledge needed for a career in the graphics and imaging industries.

Awards and Scholarships

Student achievement is recognized through annual awards and scholarships. In addition to departmental
recognition, a number of students receive grants and awards from the College of Technology, the university, and from outside sources. Outside sources of scholarships and grants include the Print and Graphics Scholarship Foundation, the Nolan Moore Foundation, the Packaging Label and Gravure Association, the Gravure Education Foundation and the Foundation of Flexographic Technical Association. Graduate students are eligible for graduate assistantships.

Faculty

The department has ten full-time and several part-time faculty who provide the instruction necessary for a quality program. Each of the faculty has been selected for teaching effectiveness, educational qualifications and professional industrial experience in the print and digital imaging industries.

Professional Affiliations

The faculty are members of the following professional organizations:

Accrediting Council of Collegiate Graphic Communications
Association of Graphic Arts Trainers
Electronic Document Systems Foundation
Flexography Technical Association
Foundation of the Flexography Technical Association
Gravure Association of America
International Association of Printing House Craftsmen
International Graphic Arts Education Association
International Publishing Management Association
National Association of Printing Leadership
National Education Association
Packaging Label and Gravure Association
Printing Industries of America
Printing and Imaging Association of MidAmerica

Specialty Graphic Imaging Association
Technical Association of the Graphic Arts
University and College Design Association

Student Organizations

The Graphic Arts Club brings students together through extracurricular activities that enhance the academic experience. Club activities may include field trips, symposiums, service to the department and fundraising for the club.

The Iota Chapter of the Gamma Epsilon Tau (GET) is a national graphic arts honorary society limited to students who have completed 15 hours within the Department of Graphics and Imaging Technologies, 45 hours overall, and maintain a 3.25 GPA. Membership in GET is by invitation only. Activities of this group include service to the department.

Industry Partnerships

As a program particularly tied to current technology (hardware and software), the department maintains a constant and on-going relationship with industry. This “partnership” with industry benefits all parties considered – particularly the student.

Initiatives directed to specific business regarding consulting, research and development and equipment placement have had a proven track record. Maintaining a close relationship with industry professionals keeps the program current and meets the continual changing skills needed as students enter the workforce.

National Advisory Council

The National Advisory Council for Printing Education at Pittsburg State University serves the department by providing advice and direction. This Council is comprised of representatives from all segments of the graphics industry, and provides input in the areas of curriculum development, equipment acquisition, and overall promotion and direction of the department.
Degree Options

Bachelor of Science in Technology Degree with a Major in Graphic Communications

The Bachelor of Science in Technology degree is offered with a major in Graphic Communications. Students select an area of emphasis based on their area of interest from one of the following choices: Digital Media, Graphic Design, Graphics Management, Print Media, and Web/Interactive Media. Career opportunities vary depending upon the area of interest but may include creative, technical, supervisory or management areas. The curriculum stresses the application of the technical aspects of graphics to the solution of practical problems. A foundation in a core set of graphics courses is complimented by advanced study in the chosen area of emphasis.

Bachelor of Applied Science Degree with a Major in Technology with a Digital and Print Media Emphasis

The Bachelor of Applied Science Degree with a Major in Technology, with an emphasis in Digital and Print Media, is offered for students transferring to Pittsburg State University with an earned Associate of Applied Science degree in a graphics-related curriculum. This option accepts all technical coursework and general education from a two-year program and pairs it with upper division technical and managerial courses to complete a four-year degree. This degree is offered through the Department of Technology and Workforce Learning.

Master of Science Degree with a Major in Technology with a Printing Management Emphasis

The Master of Science Degree with a Major in Technology, with an emphasis in Printing Management, offers advanced instruction in technical, managerial, creative and supervisory areas related to the graphics industry.

Students may choose one of two options. Option 1 requires 15 credits of core courses, 6 credits of thesis and 9 credits of emphasis/elective courses for a total of 30 credit hours of instruction. Option 2 requires 18 credits of core courses and 15 hours of emphasis/elective courses for a total of 33 credit hours of instruction. A final plan would be worked out between the student and his/her advisor.

Admission to the graduate program requires an undergraduate major in printing, graphic arts, graphic design, or another related field with a Grade Point Average of 2.7 or better. This degree is offered through the Department of Technology and Workforce Learning.

Departmental Minors

Students outside of the Graphics and Imaging Technologies department, who wish to develop a specialization related to their major, may choose to minor in a select area within the Graphics and Imaging Technologies department. Students may select a minor in Digital Media, Graphic Design, Photography, Print Media, or Web/Interactive Media. Other majors closely allied to the graphics industry that might benefit from a graphics minor include business, marketing, art, communications, interior design and technology education.

Bachelor of Science in Technology Degree with a Major in Graphic Communications: Digital Media Emphasis

The Digital Media emphasis area focuses on digital graphics, which includes digital photography, video and audio editing, special effects and 3D rendering and animation. Students will develop skills for creating and manipulating 2D and 3D graphics audio and video for use in television, digital signage and video games.

Basic Skills (12-14 hours)

COMM 207: Speech Communication .................. 3  
ENGL 101: English Composition ......................... 3  
ENGL 190: Honors English Composition ................ 3  
or ENGL 299: Introduction to Research Writing ........ 3

Mathematics (select one) (3-5 hours)

MATH 110: College Algebra with Review ............... 5  
MATH 113: College Algebra ................................ 3  
MATH 133: Quantitative Reasoning ...................... 3  
MATH 143: Elementary Statistics ........................ 3
General Education Electives (35-41 hours)

Sciences (8-9 hours)

Natural Sciences (Select one) (4-5 hours)
BIOL 111: General Biology ........................................ 3
and BIOL 112: General Biology Laboratory ................. 2
BIOL 113: Environmental Life Science ..................... 4
BIOL 211: Principles of Biology I ...................... 4

Physical Sciences (Select one) (4 hours)
CHEM 105: Introductory Chemistry .......................... 3
and CHEM 106: Introductory Chemistry Laboratory ................. 1
PHYS 160: Physical Geology .................................. 3
and PHYS 165: Physical Geology Laboratory .............. 1
PHYS 162: Physical Oceanography .......................... 3
and PHYS 163: Physical Oceanography Laboratory .......... 1
PHYS 166: Meteorology ...................................... 3
and PHYS 167: Meteorology Laboratory ................... 1
PHYS 171: Physical Science .................................. 3
and PHYS 172: Physical Science Laboratory .............. 1
PHYS 175: Descriptive Astronomy .......................... 3
and PHYS 176: Astronomy Laboratory .................... 1
PHYS 375: Solar System Astronomy ...................... 3
and PHYS 176: Astronomy Laboratory .................... 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology ....................... 3
WOMEN 200: Introduction to Women's Studies ........ 3

Political Studies (3 hours)
POLS 101: U.S. Politics .......................................... 3

Producing and Consuming (Select one from two of the following three categories) (5-6 hours)

Economy
ECON 191: Issues in Today's Economy .................... 3
FCS 230: Consumer Education and Personal Finance .......... 3

Technology
EET 247: Computer Programming for Electronic Systems .................................................. 3
GT 190: Introduction to Technological Systems ........ 2
GT 350: Technology and Civilization .................. 3
EDTH 330: Technology for the Classroom ............. 3
TE 551: Integrated Technology for Educators .......... 3
TM 350: Societal Influence of Technology ............. 3

Business
ACCTG 201: Financial Accounting ......................... 3
CIS 130: Computer Information Systems ............... 3
MGMKT 101: Introduction to Business ................ 3

Fine Arts and Aesthetic Studies (3 hours)
ART 178: Introduction to the Visual Arts ............. 3

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I ............ 5
MLL 124: French Language and Culture I .......... 5
MLL 154: Spanish Language and Culture I .......... 5
MLL 184: Russian Language and Culture I ........ 5
MLL 194: Korean Language and Culture I .......... 5
GEOG 106: World Regional Geography ............... 3
GEOG 300: Elements of Geography .................. 3
GEOG 304: Human Geography ......................... 3
WOMEN 399: Global Women's Issues ................. 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ......................... 3

Physical (Select one)
FCS 203: Nutrition and Health ......................... 3
FCS 301: Nutrition ........................................ 3
HHP 150: Lifetime Fitness Concepts .................. 1

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ...................... 3
HIST 102: World History from 1500 ................. 3
HIST 201: American History to 1865 ......................... 3
HIST 202: American History from 1865 ....................... 3

Literature
ENGL 113: General Literature .................................... 3
ENGL 114: General Literature (Genre) ......................... 3
ENGL 116: General Literature (Theme) ......................... 3
ENGL 315: Mythology ............................................. 3
ENGL 320: Literature and Film .................................... 3

Philosophy
PHIL 103: Introduction to Philosophy .......................... 3
PHIL 105: Ethics .................................................. 3
PHIL 111: Ethics: Applied Emphasis (____) ...................... 3
PHIL 208: Logic and Critical Thinking ......................... 3
PHIL 231: World Religions ....................................... 3

GIT Core Courses (22-23 hours)
GIT 100: Introduction to Graphics Technologies ........... 3
GIT 141: Vector Based Graphics ................................ 3
GIT 142: Raster Graphics Software ............................. 3
GIT 230: Graphic Design ......................................... 3
GIT 240: Page Layout Software .................................. 3
GIT 301: Graphics Career Development ....................... 2
GIT 600: Graphics Internship ..................................... 3
GIT 650: Production Graphics .................................... 3
or GIT 690: Senior Project ......................................... 2

Digital Media Emphasis Courses (24 hours)
GIT 231: Audio/Video Software .................................. 3
GIT 310: Photography ............................................. 3
GIT 311: Studio Product Photography .......................... 3
GIT 334: 3D Graphics ............................................. 3
GIT 410: Commercial Photography .............................. 3
GIT 432: Digital Media Design .................................... 3
GIT 510: Portrait Photography .................................... 3
GIT 530: 3D Animation and Rendering ......................... 3

Digital Media Electives (10-11 hours)
GIT 221: Web Graphics Software ................................ 3
GIT 322: Web Site Design ......................................... 3
GIT 323: Web and Motion Graphics .............................. 3
GIT 342: Print File Preparation and Preflighting ............ 3
GIT 350: Printing Technologies .................................... 3
GIT 355: Specialty Graphics ....................................... 3

GIT 400: Investigations ............................................. 1-4
GIT 401: Graphics Work Experience ......................... 1-3
GIT 421: Interactive Media Design ............................. 3
GIT 521: Mobile Media Development .......................... 3
GIT 523: Web Content Management Systems ................ 3
GIT 531: Publication Graphics ................................... 3
GIT 532: Packaging Graphics ..................................... 3
GIT 552: Digital and Variable Data Technologies .......... 3
GIT 562: Graphics Cost Analysis and Estimating ............ 3
GIT 580: Sales and Customer Service .......................... 3
GIT 590: Special Topics (____) .................................... 1-3
GIT 601: Laboratory Practicum ................................... 1-4
GIT 680: Graphics Administration .................................. 3

Total Technical Courses (57 hours)

Support Courses (12 hours)
ENGL 301: Technical/Professional Writing .................... 3
MGMKT 330: Basic Marketing ..................................... 3
COMM 200: Introduction to Mass Communication ............ 3
COMM 274: Introduction to Audio and Video Production .... 3

Electives (by advisement) (0-8 hours)

Total hours for Bachelor of Science in Technology Degree with a Major in Graphic Communications: Digital Media Emphasis (124 hours)

Bachelor of Science in Technology Degree with a Major in Graphic Communications: Graphic Design Emphasis

The Graphic Design emphasis area blends the art and creative side with the technical aspects of graphics production. Students will learn the fundamentals of art and design and apply those fundamentals in a production setting, following the design from initial concept through digital file development and end with the final output of the graphic product.
Basic Skills (12-14 hours)
COMM 207: Speech Communication ........................................ 3
ENGL 101: English Composition ............................................. 3
ENGL 190: Honors English Composition ..................................... 3
or ENGL 299: Introduction to Research Writing .......................... 3

Mathematics (select one) (3-5 hours)
MATH 110: College Algebra with Review .................................... 5
MATH 113: College Algebra .................................................... 3
MATH 133: Quantitative Reasoning .......................................... 3
MATH 143: Elementary Statistics ............................................. 3

General Education Electives (32-38 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)
BIOL 111: General Biology ................................................... 3
and BIOL 112: General Biology Laboratory ................................. 2
BIOL 113: Environmental Life Science ....................................... 4
BIOL 211: Principles of Biology I ............................................ 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry ........................................ 3
and CHEM 106: Introductory Chemistry Laboratory .................... 1
PHYS 160: Physical Geology ................................................... 3
and PHYS 165: Physical Geology Laboratory .............................. 1
PHYS 162: Physical Oceanography .......................................... 3
and PHYS 163: Physical Oceanography Laboratory ..................... 1
PHYS 166: Meteorology ....................................................... 3
and PHYS 167: Meteorology Laboratory ..................................... 1
PHYS 171: Physical Science ................................................... 3
and PHYS 172: Physical Science Laboratory .............................. 1
PHYS 175: Descriptive Astronomy .......................................... 3
and PHYS 176: Astronomy Laboratory ..................................... 1
PHYS 375: Solar System Astronomy ........................................ 3
and PHYS 176: Astronomy Laboratory ..................................... 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology .......................................... 3
WOMEN 200: Introduction to Women’s Studies .......................... 3

Political Studies (3 hours)
POLS 101: U.S. Politics .......................................................... 3

Producing and Consuming (Select one from two of the following three categories) (5-6 hours)

Economy
ECON 191: Issues in Today's Economy .................................... 3
FCS 230: Consumer Education and Personal Finance .................. 3

Technology
EET 247: Computer Programming for Electronic Systems ............ 3
GT 190: Introduction to Technological Systems ......................... 2
GT 350: Technology and Civilization ..................................... 3
EDTH 330: Technology for the Classroom ............................... 3
TE 551: Integrated Technology for Educators .......................... 3
TM 350: Societal Influence of Technology .............................. 3

Business
ACCTG 201: Financial Accounting ......................................... 3
CIS 130: Computer Information Systems ................................. 3

Fine Arts and Aesthetic Studies (0 hours)

• ART 233 Drawing I (0 hours)
(satisfied by Emphasis course)

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I .............................. 5
MLL 124: French Language and Culture I .............................. 5
MLL 154: Spanish Language and Culture I .............................. 5
MLL 184: Russian Language and Culture I ............................ 5
MLL 194: Korean Language and Culture I ............................. 5
GEOG 106: World Regional Geography ................................ 3
GEOG 300: Elements of Geography .................................... 3
GEOG 304: Human Geography ........................................... 3
WOMEN 399: Global Women’s Issues ................................... 3
### Health and Well Being (4-6 hours)

**Psychological**
- PSYCH 155: General Psychology ......................... 3

**Physical (Select one)**
- FCS 203: Nutrition and Health .......................... 3
- FCS 301: Nutrition ........................................ 3
- HHP 150: Lifetime Fitness Concepts .................... 1

**Human Heritage (Select one from two of the following three categories) (6 hours)**

**History**
- HIST 101: World History to 1500 ......................... 3
- HIST 102: World History from 1500 .................... 3
- HIST 201: American History to 1865 ................... 3
- HIST 202: American History from 1865 ............... 3

**Literature**
- ENGL 113: General Literature .......................... 3
- ENGL 114: General Literature (Genre) ................ 3
- ENGL 116: General Literature (Theme) ............... 3
- ENGL 315: Mythology ..................................... 3
- ENGL 320: Literature and Film .......................... 3

**Philosophy**
- PHIL 103: Introduction to Philosophy ................. 3
- PHIL 105: Ethics ........................................ 3
- PHIL 208: Logic and Critical Thinking ............... 3
- PHIL 231: World Religions ................................ 3

**GIT Core Courses (22-23 hours)**
- GIT 100: Introduction to Graphics Technologies .... 3
- GIT 141: Vector Based Graphics ....................... 3
- GIT 142: Raster Graphics Software .................... 3
- GIT 230: Graphic Design ................................ 3
- GIT 240: Page Layout Software ....................... 3
- GIT 301: Graphics Career Development ............... 2
- GIT 600: Graphics Internship ......................... 3
- GIT 650: Production Graphics .......................... 3
- or GIT 690: Senior Project ............................ 2

### Graphic Design Emphasis Courses (18 hours)
- GIT 221: Web Graphics Software ....................... 3
- GIT 310: Photography .................................. 3
- GIT 421: Interactive Media Design ..................... 3
- GIT 342: Print File Preparation and Preflighting ..... 3
- ART 100: Art Foundations I: 2D Visual Thinking .... 3
- ART 233: Drawing I .................................... 3

### Graphic Design Electives (11-12 hours)
- GIT 231: Audio/Video Software ......................... 3
- GIT 311: Studio Product Photography ................ 3
- GIT 322: Web Site Design ................................ 3
- GIT 323: Web and Motion Graphics .................... 3
- GIT 334: 3D Graphics .................................. 3
- GIT 355: Specialty Graphics ............................ 3
- GIT 400: Investigations ................................ 1-4
- GIT 401: Graphics Work Experience ................. 1-3
- GIT 410: Commercial Photography .................... 3
- GIT 432: Digital Media Design ........................ 3
- GIT 510: Portrait Photography ......................... 3
- GIT 521: Mobile Media Development .................. 3
- GIT 523: Web Content Management Systems ....... 3
- GIT 530: 3D Animation and Rendering ............... 3
- GIT 531: Publication Graphics ........................ 3
- GIT 532: Packaging Graphics ........................... 3
- GIT 552: Digital and Variable Data Technologies .. 3
- GIT 562: Graphics Cost Analysis and Estimating ... 3
- GIT 590: Special Topics (_____........................ 1-3
- GIT 601: Laboratory Practicum ......................... 1-4
- GIT 640: Color Reproduction .......................... 3
- GIT 680: Graphics Administration ..................... 3

### Total Technical Courses (52 hours)

### Support Courses (21 hours)
- ENGL 301: Technical/Professional Writing .......... 3
- MGMKT 330: Basic Marketing .......................... 3
- ART 205: Commercial Art ................................ 3
- ART 236: Drawing II ................................... 3
- ART 250: Art Foundations III: Color Theory and Application ................................. 3
- ART 689: Contemporary Issues in Art ............... 3
Choose one from the following

ART 220: Art of Photography I ........................................3
ART 305: Commercial Art II ........................................3
ART 320: Art of Photography II ......................................3
ART 420: Art of Photography III ....................................3
ART 433: Life Drawing .................................................3
ART 688: History of Modern Art ....................................3

• Electives (by advisement) (0-7 hours)

Total hours for Bachelor of Science in Technology Degree with a Major in Graphic Communications: Graphic Design Emphasis (124 hours)

Bachelor of Science in Technology Degree with a Major in Graphic Communications: Graphics Management Emphasis

The Graphics Management emphasis area combines a program of hands-on experiences in graphics production with application of managerial functions. Courses reflect current technology and application, including entrepreneurship, management, sales and customer service, estimating, production control and scheduling.

Basic Skills (12-14 hours)

COMM 207: Speech Communication ..........................3
ENGL 101: English Composition .................................3
ENGL 190: Honors English Composition ......................3
or ENGL 299: Introduction to Research Writing ............3

Mathematics (select one) (3-5 hours)

MATH 110: College Algebra with Review ....................5
MATH 113: College Algebra ....................................3
MATH 133: Quantitative Reasoning ............................3
MATH 143: Elementary Statistics ..............................3

General Education Electives (30-35 hours)

Natural Sciences (Select one)

BIOL 111: General Biology ........................................3
and BIOL 112: General Biology Laboratory ................2
BIOL 113: Environmental Life Science .......................4
BIOL 211: Principles of Biology I ..............................4

Physical Sciences (Select one)

CHEM 105: Introductory Chemistry ............................3
CHEM 106: Introductory Chemistry Laboratory ..............1
PHYS 160: Physical Geology ......................................3
PHYS 165: Physical Geology Laboratory ....................1
PHYS 162: Physical Oceanography ...........................3
PHYS 163: Physical Oceanography Laboratory .............1
PHYS 166: Meteorology ..........................................3
PHYS 167: Meteorology Laboratory ..........................1
PHYS 171: Physical Science .......................................3
PHYS 172: Physical Science Laboratory .....................1
PHYS 175: Descriptive Astronomy ............................3
PHYS 176: Astronomy Laboratory ............................1
PHYS 375: Solar System Astronomy ..........................3
PHYS 176: Astronomy Laboratory ............................1

Social Studies (Select one) (3 hours)

SOC 100: Introduction to Sociology ............................3
WOMEN 200: Introduction to Women's Studies ..............3

Political Studies (3 hours)

POLS 101: U.S. Politics .............................................3

Producing and Consuming (0 hours)

Economy

ECON 200: Introduction to Microeconomics ................3

Business

ACCTG 201: Financial Accounting ............................3
(above courses satisfied by Major Support Courses) (0 hours)
Fine Arts and Aesthetic Studies (select one)
(3 hours)
ART 178: Introduction to the Visual Arts ......................... 3

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I ...................... 5
MLL 124: French Language and Culture I ...................... 5
MLL 154: Spanish Language and Culture I ...................... 5
MLL 184: Russian Language and Culture I ...................... 5
MLL 194: Korean Language and Culture I ...................... 5
GEOG 106: World Regional Geography ........................... 3
GEOG 300: Elements of Geography ............................... 3
GEOG 304: Human Geography .................................. 3
WOMEN 399: Global Women's Issues ............................ 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ................................. 3

Physical (Select one)
FCS 203: Nutrition and Health .................................. 3
FCS 301: Nutrition ............................................... 3
HHP 150: Lifetime Fitness Concepts .............................. 1

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ................................. 3
HIST 102: World History from 1500 ............................. 3
HIST 201: American History to 1865 ............................ 3
HIST 202: American History from 1865 ......................... 3

Literature
ENGL 113: General Literature .................................. 3
ENGL 114: General Literature (Genre) ......................... 3
ENGL 116: General Literature (Theme) ......................... 3
ENGL 315: Mythology ........................................... 3
ENGL 320: Literature and Film .................................. 3

Philosophy
PHIL 103: Introduction to Philosophy ............................ 3
PHIL 105: Ethics .................................................. 3
PHIL 111: Ethics: Applied Emphasis (___) ....................... 3
PHIL 208: Logic and Critical Thinking .......................... 3
PHIL 231: World Religions ...................................... 3

GIT Core Courses (22-23 hours)
GIT 100: Introduction to Graphics Technologies ................ 3
GIT 141: Vector Based Graphics ................................ 3
GIT 142: Raster Graphics Software ............................. 3
GIT 230: Graphic Design ....................................... 3
GIT 240: Page Layout Software ................................ 3
GIT 301: Graphics Career Development ....................... 2
GIT 600: Graphics Internship ................................. 3
GIT 650: Production Graphics ................................. 3
or GIT 690: Senior Project ................................... 2

Graphics Management Emphasis Courses
(21 hours)
GIT 342: Print File Preparation and Preflighting ............ 3
GIT 350: Printing Technologies ................................ 3
GIT 562: Graphics Cost Analysis and Estimating ............ 3
GIT 580: Sales and Customer Service ......................... 3
GIT 640: Color Reproduction ................................. 3
GIT 680: Graphics Administration ............................. 3
TTED 606: Industrial Supervision ............................. 3

Graphics Management Electives (8-9 hours)
GIT 221: Web Graphics Software ............................... 3
GIT 231: Audio/Video Software ................................. 3
GIT 310: Photography ........................................... 3
GIT 311: Studio Product Photography ......................... 3
GIT 322: Web Site Design ....................................... 3
GIT 323: Web and Motion Graphics ........................... 3
GIT 334: 3D Graphics .......................................... 3
GIT 355: Specialty Graphics ................................... 3
GIT 400: Investigations ......................................... 1-4
GIT 401: Graphics Work Experience .......................... 1-3
GIT 410: Commercial Photography ............................ 3
GIT 421: Interactive Media Design ............................ 3
GIT 432: Digital Media Design ................................. 3
GIT 510: Portrait Photography ................................. 3
GIT 521: Mobile Media Development ......................... 3
GIT 523: Web Content Management Systems .......... 3
GIT 530: 3D Animation and Rendering ..................... 3
GIT 531: Publication Graphics ................................ 3
GIT 532: Packaging Graphics .................................. 3
GIT 552: Digital and Variable Data Technologies .......... 3
GIT 590: Special Topics (____) ................................ 1-3
GIT 601: Laboratory Practicum ................................ 1-4

Total Technical Courses (52 hours)

Support Courses (24 hours)

ENGL 301: Technical/Professional Writing .................. 3
ACCTG 201: Financial Accounting ............................ 3
ACCTG 202: Managerial Accounting .......................... 3
ECON 200: Introduction to Microeconomics ................. 3
FIN 326: Business Finance .................................... 3
MGMKT 327: Organizational Theory and Behavior ........... 3
MGMKT 330: Basic Marketing .................................. 3
MGMKT 444: Legal and Social Environment of Business ........ 3

• Electives (by advisement) (0-6 hours)

Total hours for Bachelor of Science in Technology Degree with a Major in Graphic Communications: Graphics Management Emphasis (124 hours)

Bachelor of Science in Technology Degree with a Major in Graphic Communications:
Print Media Emphasis

The Print Media Technology emphasis area focuses on graphics production as it relates to the printing industry within the larger scope of the graphics industry. Students will learn all facets of input, manipulation and output as they relate to printed products.

Basic Skills (12-14 hours)

COMM 207: Speech Communication .......................... 3
ENGL 101: English Composition .............................. 3
ENGL 190: Honors English Composition ...................... 3
or ENGL 299: Introduction to Research Writing ............. 3

Mathematics (select one) (3-5 hours)
MATH 110: College Algebra with Review ...................... 5
MATH 113: College Algebra .................................... 3
MATH 133: Quantitative Reasoning ............................ 3
MATH 143: Elementary Statistics .............................. 3

General Education Electives (32-38 hours)

Sciences (8-9 Hours)

Natural Sciences (Select one)
BIOL 111: General Biology ...................................... 3
and BIOL 112: General Biology Laboratory .................. 2
BIOL 113: Environmental Life Science ....................... 4
BIOL 211: Principles of Biology I .............................. 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry ........................... 3
and CHEM 106: Introductory Chemistry Laboratory ........ 1
PHYS 160: Physical Geology .................................... 3
and PHYS 165: Physical Geology Laboratory ................. 1
PHYS 162: Physical Oceanography ............................ 3
and PHYS 163: Physical Oceanography Laboratory .......... 1
PHYS 166: Meteorology ........................................ 3
and PHYS 167: Meteorology Laboratory ...................... 1
PHYS 171: Physical Science .................................... 3
and PHYS 172: Physical Science Laboratory ................. 1
PHYS 175: Descriptive Astronomy ............................ 3
and PHYS 176: Astronomy Laboratory ........................ 1
PHYS 375: Solar System Astronomy ........................... 3
and PHYS 176: Astronomy Laboratory ....................... 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology ........................... 3
WOMEN 200: Introduction to Women’s Studies .............. 3

Political Studies (3 hours)
POLS 101: U.S. Politics ........................................... 3
Producing and Consuming (select ECON 200 and one from the remaining two categories) (2-3 hours)

Economy
ECON 200: Introduction to Microeconomics ..........3
(satisfied by Major Support courses) (0 hours)

Technology
EET 247: Computer Programming for Electronic Systems ...............................................3
GT 190: Introduction to Technological Systems ........2
GT 350: Technology and Civilization ....................3
EDTH 330: Technology for the Classroom ...............3
TE 551: Integrated Technology for Educators ..........3
TM 350: Societal Influence of Technology ...............3

Business
ACCTG 201: Financial Accounting .......................3
CIS 130: Computer Information Systems ...............3
MGMT 101: Introduction to Business ...................3

Fine Arts and Aesthetic Studies (select one) (3 hours)
ART 178: Introduction to the Visual Arts ...............3

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I ............5
MLL 124: French Language and Culture I ............5
MLL 154: Spanish Language and Culture I ............5
MLL 184: Russian Language and Culture I ...........5
MLL 194: Korean Language and Culture I ............5
GEOG 106: World Regional Geography ................3
GEOG 300: Elements of Geography ....................3
GEOG 304: Human Geography ..........................3
WOMEN 399: Global Women’s Issues ..................3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ........................3

Physical (Select one)
FCS 203: Nutrition and Health ..........................3
FCS 301: Nutrition .......................................3
HHP 150: Lifetime Fitness Concepts ....................1

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 .........................3
HIST 102: World History from 1500 ....................3
HIST 201: American History to 1865 ...................3
HIST 202: American History from 1865 ...............3

Literature
ENGL 113: General Literature ..........................3
ENGL 114: General Literature (Genre) .................3
ENGL 116: General Literature (Theme) ...............3
ENGL 315: Mythology ...................................3
ENGL 320: Literature and Film ..........................3

Philosophy
PHIL 103: Introduction to Philosophy ..................3
PHIL 105: Ethics .........................................3
PHIL 208: Logic and Critical Thinking .................3
PHIL 231: World Religions ..............................3

GIT Core Courses (22-23 hours)
GIT 100: Introduction to Graphics Technologies ........3
GIT 141: Vector Based Graphics ........................3
GIT 142: Raster Graphics Software ....................3
GIT 230: Graphic Design ................................3
GIT 240: Page Layout Software ........................3
GIT 301: Graphics Career Development ...............2
GIT 600: Graphics Internship ...........................3
GIT 650: Production Graphics ..........................3
or GIT 690: Senior Project .............................2

Print Media Emphasis Courses (24 hours)
GIT 342: Print File Preparation and Preflighting ........3
GIT 350: Printing Technologies ........................3
GIT 355: Specialty Graphics ............................3
GIT 531: Publication Graphics ..........................3
Bachelor of Science in Technology Degree with a Major in Graphic Communications: Web/Interactive Media Emphasis

The Web/Interactive Media emphasis area provides students with both development and design skills for creating design rich, interactive content for both traditional and mobile web devices. Students will develop skills for creating, manipulating and managing, dynamic websites, web animations/games, mobile media and effective user interactions.

Basic Skills (12-14 hours)
COMM 207: Speech Communication .......................... 3
ENGL 101: English Composition .......................... 3
ENGL 190: Honors English Composition .......................... 3
or ENGL 299: Introduction to Research Writing .......................... 3

Mathematics (select one) (3-5 hours)
MATH 110: College Algebra with Review .......................... 5
MATH 113: College Algebra ............................................. 3
MATH 133: Quantitative Reasoning ............................................. 3
MATH 143: Elementary Statistics ............................................. 3

General Education Electives (35-41 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)
BIOL 111: General Biology ............................................. 3
and BIOL 112: General Biology Laboratory ............................................. 2
BIOL 113: Environmental Life Science ............................................. 4
BIOL 211: Principles of Biology I ............................................. 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry ............................................. 3
and CHEM 106: Introductory Chemistry Laboratory ............................................. 1
PHYS 160: Physical Geology ............................................. 3
and PHYS 165: Physical Geology Laboratory ............................................. 1
PHYS 162: Physical Oceanography ............................................. 3
and PHYS 163: Physical Oceanography Laboratory ............................................. 1
PHYS 166: Meteorology ............................................. 3

Print Media Electives (13-14 hours)

GIT 221: Web Graphics Software ............................................. 3
GIT 231: Audio/Video Software ............................................. 3
GIT 310: Photography ............................................. 3
GIT 311: Studio Product Photography ............................................. 3
GIT 322: Web Site Design ............................................. 3
GIT 323: Web and Motion Graphics ............................................. 3
GIT 334: 3D Graphics ............................................. 3
GIT 400: Investigations ............................................. 1-4
GIT 401: Graphics Work Experience ............................................. 1-3
GIT 410: Commercial Photography ............................................. 3
GIT 421: Interactive Media Design ............................................. 3
GIT 432: Digital Media Design ............................................. 3
GIT 510: Portrait Photography ............................................. 3
GIT 521: Mobile Media Development ............................................. 3
GIT 523: Web Content Management Systems ............................................. 3
GIT 530: 3D Animation and Rendering ............................................. 3
GIT 580: Sales and Customer Service ............................................. 3
GIT 590: Special Topics (____) ............................................. 1-3
GIT 601: Laboratory Practicum ............................................. 1-4
GIT 680: Graphics Administration ............................................. 3

Total Technical Courses (60 hours)

Support Courses (12 hours)
ECON 200: Introduction to Microeconomics ............................................. 3
ENGL 301: Technical/Professional Writing ............................................. 3
MGMKT 327: Organizational Theory and Behavior ............................................. 3
MGMKT 330: Basic Marketing ............................................. 3

- Electives (by advisement) (0-8 hours)

Total Hours for Bachelor of Science in Technology Degree with a Major in Graphic Communications: Print Media Emphasis (124 hours)
and PHYS 167: Meteorology Laboratory ............... 1
PHYS 171: Physical Science ................................ 3
and PHYS 172: Physical Science Laboratory .......... 1
PHYS 175: Descriptive Astronomy ..................... 3
and PHYS 176: Astronomy Laboratory ................. 1
PHYS 375: Solar System Astronomy .................... 3
and PHYS 176: Astronomy Laboratory ................. 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology .................... 3
WOMEN 200: Introduction to Women's Studies ....... 3

Political Studies (3 hours)
POLS 101: U.S. Politics ..................................... 3

Producing and Consuming (Select one from two of the following three categories) (5-6 hours)

Economy
ECON 191: Issues in Today's Economy ............... 3
FCS 230: Consumer Education and Personal Finance ........................................ 3

Technology
EET 247: Computer Programming for Electronic Systems ........................................... 3
GT 190: Introduction to Technological Systems ...... 2
GT 350: Technology and Civilization ................. 3
EDTH 330: Technology for the Classroom .......... 3
TE 551: Integrated Technology for Educators ........ 3
TM 350: Societal Influence of Technology .......... 3

Business
ACCTG 201: Financial Accounting .................... 3
CIS 130: Computer Information Systems ............ 3
MGMKT 101: Introduction to Business ............... 3

Fine Arts and Aesthetic Studies (3 hours)
ART 178: Introduction to the Visual Arts ............ 3

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I .......... 5
MLL 124: French Language and Culture I .......... 5
MLL 154: Spanish Language and Culture I .......... 5
MLL 184: Russian Language and Culture I ......... 5
MLL 194: Korean Language and Culture I .......... 5
GEOG 106: World Regional Geography ............... 3
GEOG 300: Elements of Geography ................. 3
GEOG 304: Human Geography ....................... 3
WOMEN 399: Global Women's Issues ............... 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ..................... 3

Physical (Select one)
FCS 203: Nutrition and Health ....................... 3
FCS 301: Nutrition ....................................... 3
HHP 150: Lifetime Fitness Concepts .................. 1

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ..................... 3
HIST 102: World History from 1500 ................. 3
HIST 201: American History to 1865 ............... 3
HIST 202: American History from 1865 ............ 3

Literature
ENGL 113: General Literature ......................... 3
ENGL 114: General Literature (Genre) .......... 3
ENGL 116: General Literature (Theme) .......... 3
ENGL 315: Mythology .................................. 3
ENGL 320: Literature and Film ...................... 3

Philosophy
PHIL 103: Introduction to Philosophy ............... 3
PHIL 105: Ethics ....................................... 3
PHIL 111: Ethics: Applied Emphasis (____) ....... 3
PHIL 208: Logic and Critical Thinking ............. 3
PHIL 231: World Religions ......................... 3

GIT Core Courses (22-23 hours)
GIT 100: Introduction to Graphics Technologies .... 3
GIT 141: Vector Based Graphics .................... 3
GIT 142: Raster Graphics Software .................................. 3
GIT 230: Graphic Design ............................................... 3
GIT 240: Page Layout Software ....................................... 3
GIT 301: Graphics Career Development ........................... 2
GIT 600: Graphics Internship .......................................... 3
GIT 650: Production Graphics ......................................... or GIT 690: Senior Project ............................................. 2

Web/Interactive Emphasis Courses (21 hours)
GIT 221: Web Graphics Software ................................... 3
GIT 231: Audio/Video Software ....................................... 3
GIT 322: Web Site Design ............................................. 3
GIT 323: Web and Motion Graphics ............................... 3
GIT 421: Interactive Media Design .................................. 3
GIT 521: Mobile Media Development ............................... 3
GIT 523: Web Content Management Systems .................... 3

Web/Interactive Electives (13-14 hours)
GIT 310: Photography .................................................. 3
GIT 311: Studio Product Photography ............................. 3
GIT 334: 3D Graphics ................................................... 3
GIT 342: Print File Preparation and Preflighting ................ 3
GIT 350: Printing Technologies ....................................... 3
GIT 355: Specialty Graphics .......................................... 3
GIT 400: Investigations ................................................. 1-4
GIT 401: Graphics Work Experience ............................... 1-3
GIT 410: Commercial Photography ................................ 3
GIT 432: Digital Media Design ....................................... 3
GIT 510: Portrait Photography ....................................... 3
GIT 530: 3D Animation and Rendering ........................... 3
GIT 531: Publication Graphics ....................................... 3
GIT 532: Packaging Graphics ........................................ 3
GIT 552: Digital and Variable Data Technologies .............. 3
GIT 562: Graphics Cost Analysis and Estimating ............... 3
GIT 580: Sales and Customer Service .............................. 3
GIT 590: Special Topics (____) ..................................... 1-3
GIT 601: Laboratory Practicum ...................................... 1-4
GIT 640: Color Reproduction ........................................ 3
GIT 680: Graphics Administration .................................. 3

Total Technical Courses (57 hours)

Support Courses (12 hours)
ENGL 301: Technical/Professional Writing ....................... 3
MGMKT 330: Basic Marketing ........................................ 3
MGMKT 481: Advertising Management ............................ 3
HRD 575: Instructional Media in Human Resource Development ............................................. 3

• Electives (by advisement) (0-8 hours)

Total hours for Bachelor of Science in Technology Degree with a Major in Graphic Communications: Web/Interactive Media Emphasis (124 hours)

Bachelor of Applied Science Degree with a Major in Technology: Digital and Print Media Emphasis
The Bachelor of Applied Science in Technology offers students who have graduated from a community college or technical college with an Associate of Applied Science (AAS) degree an opportunity to pursue a professional career path and extend their education. The AAS degree must have a technical emphasis related to graphics and imaging and a GPA of 2.50. Students with an earned AAS degree can transfer up to 64 college credits. After taking an additional 60 hours from Pittsburg State University students graduate with a Bachelor of Applied Science (BAS) with a major in Technology and an emphasis in Digital and Print Media.

The two years needed to complete the BAS provides hands-on experiences for a real-world job. In addition, this program gives additional orientation to the graphics industry, theory, logic, leadership, and marketing skills, in preparation for professional opportunities.

Program requirements may vary based upon the student’s Associate of Applied Science degree. Consult an academic advisor in the graphics department for specific degree requirements.

Basic Skills
ENGL 101: English Composition ................................... 3
ENGL 299: Introduction to Research Writing ................... 3
COMM 207: Speech Communication .............................. 3
COMM 207 as well as ENGL 301 can have other courses substituted in their place.

**Behavioral, Social, History & Political Studies**

PSYCH 155: General Psychology ........................................... 3  
or PSYCH 680: Human Relations in the Workplace  
........................................................................................................... 3  
SOC 100: Introduction to Sociology ........................................... 3  
or POLS 101: U.S. Politics ..................................................... 3  
or HIST 101: World History to 1500 ...................................... 3  
or HIST 201: American History to 1865 ............................... 3  
or GT 350: Technology and Civilization ................................. 3  
or Social Science and/or Political Studies Elective (3 hours)

**Mathematics**

MATH 113: College Algebra .................................................. 3  
MATH 143: Elementary Statistics ......................................... 3  
MATH 113 or substitute  

MATH 143 required for MFGT 405

**Natural Sciences (Minimum of 6 hours)**

BIOL 113: Environmental Life Science ............................... 4  
PHYS 171: Physical Science ................................................. 3  
PHYS 172: Physical Science Laboratory ............................... 1

BIOL 113 can be substituted by another natural science course.  

PHYS 171 can be substituted by another physical science course.

**Producing and Consuming**

ACCTG 201: Financial Accounting ....................................... 3  
or Approved business substitute (3 hours)

**Fine Arts (Humanity course)**

ART 178: Introduction to the Visual Arts ............................. 3  
Or fine arts substitute

**Languages and Cultures (choose one)**

GEOG 106: World Regional Geography .............................. 3  
or GEOG 300: Elements of Geography ................................. 3  
or GEOG 304: Human Geography ................................. 3  
or Language or Cultural Studies substitute

**Support Courses**

**Business Courses**

MGMKT 327: Organizational Theory and Behavior  
__________________________________________________________________________ 3  
MGMKT 330: Basic Marketing .............................................. 3  
MGMKT 444: Legal and Social Environment of Business  
__________________________________________________________________________ 3

**Technical Courses**

**Tech Management (Organization & Leadership) (12 hours)**

GIT 562: Graphics Cost Analysis and Estimating ............. 3  
GIT 680: Graphics Administration ..................................... 3  
TTED 606: Industrial Supervision ...................................... 3  
EST 393: Introduction to Industrial Safety ........................ 3

**Technical Specialization, Support and Electives**

**Technical Specialization (40 hours)**

- Technical courses from 2-Year associate degree (40 hours)

**Technical Support (10-11 hours)**

MFGT 405: Quality Control .................................................. 3  
GIT 301: Graphics Career Development .......................... 2  
GIT 600: Graphics Internship .......................................... 3  
GIT 650: Production Graphics ......................................... 3  
or GIT 690: Senior Project .................................................. 2

**Technical Electives (13-14 hours)**

- Select 13-14 hours of upper division GIT courses not already taken (13-14 hours)

**Electives (0-4 hours)**

- Select 0-4 hours of General, Business or Technical Electives (0-4 hours)
Total hours required for Bachelor of Applied Science Degree with a Major in Technology with an emphasis in Digital and Print Media (124 hours)

Minor in Digital Media

Digital Media (21 hours)
GIT 100: Introduction to Graphics Technologies ..........3
GIT 142: Raster Graphics Software ...........................3
GIT 231: Audio/Video Software ............................3
GIT 310: Photography .........................................3
GIT 334: 3D Graphics .........................................3
GIT 432: Digital Media Design ...............................3
GIT 530: 3D Animation and Rendering ........................3

Minor in Graphic Design

Graphic Design (21 hours)
GIT 100: Introduction to Graphics Technologies ..........3
GIT 141: Vector Based Graphics ............................3
GIT 142: Raster Graphics Software ...........................3
GIT 230: Graphic Design .......................................3
GIT 240: Page Layout Software ................................3

Choose two of the following GIT courses
GIT 355: Specialty Graphics ..................................3
GIT 531: Publication Graphics ..................................3
GIT 532: Packaging Graphics ..................................3

Minor in Photography

Photography (21 hours)
GIT 100: Introduction to Graphics Technologies ..........3
GIT 142: Raster Graphics Software ...........................3
GIT 231: Audio/Video Software ............................3
GIT 310: Photography .........................................3
GIT 311: Studio Product Photography ........................3
GIT 410: Commercial Photography ..........................3
GIT 510: Portrait Photography ..................................3

Minor in Print Media

Print Media (21 hours)
GIT 100: Introduction to Graphics Technologies ..........3
GIT 141: Vector Based Graphics ............................3
GIT 142: Raster Graphics Software ...........................3
GIT 240: Page Layout Software ................................3
GIT 342: Print File Preparation and Preflighting ............3
GIT 350: Printing Technologies ................................3

Choose one of the following GIT courses
GIT 355: Specialty Graphics ..................................3
GIT 531: Publication Graphics ..................................3
GIT 532: Packaging Graphics ..................................3

Minor in Web/Interactive Media

Web/Interactive Media (21 hours)
GIT 100: Introduction to Graphics Technologies ..........3
GIT 221: Web Graphics Software ............................3
GIT 322: Web Site Design .......................................3
GIT 323: Web and Motion Graphics ..........................3
GIT 421: Interactive Media Design ............................3
GIT 521: Mobile Media Development ........................3
GIT 523: Web Content Management Systems ..............3

Master of Science Degree with a Major in Technology: Printing Management Emphasis
The Master of Science degree with a major in Technology, with an emphasis in Printing Management offers advanced instruction in technical, managerial and supervisory areas related to the graphics and imaging industries. The degree is offered through the Department of Technology and Workforce Learning. (See Master of Science- Technology.)

Two options are available: Option I, a core of 15 credits is complemented by the required thesis (6 credits) and 9 credits of emphasis/electives courses for a total of 30 credit hours; Option II includes a core of 18 credits which are required and 15 credits of emphasis/electives
courses. The final plan would be worked out between the student and their advisor.

Admission to the graduate program with a major in Technology and an emphasis in Printing Management requires an undergraduate major in printing, graphic arts, graphic design or a related field.
Technology and Workforce Learning

Chairperson: John L. Iley
Professor(s): Gregory Belcher*, Jeffrey Brooks, John L. Iley*, Mark Johnson*,**, Andrew M. Klenke*, Vernon L. Morton*, Robert C. Schwindt*, Jim Tullis*
Associate Professor(s): Michael Neden*, Brian Sandford*
Assistant Professor(s): Julie D. Dainty, Doug Hague, Richard Herling*, Peggy J. Snyder*
Instructors: Susan E. Bastion, R. Brent Linder, Charles E. Phillips

*Graduate Faculty
**University Professor

Room E222 KTC
Telephone: 620-235-4371
Fax: 620-235-4020
http://www.pittstate.edu/twl/
E-mail: jiley@pittstate.edu

Undergraduate

Two-Year Technical Certificate in Electrical Technology
Associate of Applied Science Degree with a Major in Electrical Technology
Associate of Applied Science Degree with a Major in Wood Technology
Bachelor of Applied Science Degree with a Major in Technology
Bachelor of Science Degree with a major in Workforce Development
Bachelor of Science in Technology Degree with a Major in Wood Technology
Bachelor of Science in Education Degree with a Major in Technology and Engineering Education
Second Teaching Option
Bachelor of Science in Vocational Technical Education
Minor in Human Resource Development
Minor in Industrial Management and Supervision
Minor in Technology Education (Non-Teaching)
Minor in Technological Literacy
Minor in Wood Technology

Graduate

Master of Science Degree with a Major in Career and Technical Education
Master of Science Degree with a Major in Technology
Master of Science Degree with a Major in Human Resource Development
Specialist in Education Degree with a Major in Workforce Development and Education
Cooperative Doctoral Programs
Course Prefixes
AVT - Aviation Technology Courses
ET - Electrical Technology
GRT - Graduate Technology Courses
GT - General Technology Courses
HRD – Human Resource Development
TE - Technology Education
TM – Technology Management
TTED – Technical Teacher Education Courses
TWL – Technology and Workforce Learning Professional Courses
WT - Wood Technology

Scholarship Applications

Students may qualify for the scholarships offered by Pittsburg State University. On-line applications for national, state, campus and off-campus scholarships can be accessed at http://www.pittstate.edu/affordability/scholarships/.

The campus deadline for scholarship applications is February 1 of each year, and students need only to register once for any of the campus scholarships. Any questions regarding scholarships may be directed to the departmental office, 620-235-4632, or http://www.pittstate.edu/twl.
TWO-YEAR INDUSTRIAL TECHNOLOGY PROGRAMS

These curricula lead to either a Certificate in Technical Competence or a degree of Associate of Applied Science. A Certificate in Technical Competence or a two-year Associate of Applied Science degree is offered in electrical technology. An Associate of Applied Science degree is offered in wood technology. Programs for these follow.

Electrical Technology (Electricity)

Electrical Technology is an instructional program that prepares individuals to become residential, commercial, and industrial electricians or technicians. It includes the design, development, installation, testing and troubleshooting of electrical systems and equipment. From wiring a residential single-family home, to installing the large switchgear, conduits, wiring and data systems in a multi-million dollar commercial building, to the system installation, analysis, design, and troubleshooting of industrial automated control systems with programmable logic controllers, variable frequency drives and robotics, program graduates are prepared for a wide range of employment opportunities. Emphasis is given to preparing graduates to become certified electricians by attaining the Journeyman Electrical License.

BACCALAUREATE PROGRAMS

These curricula lead to degrees of Bachelor of Applied Science, Bachelor of Science in Education, Bachelor of Science in Technology, and Bachelor of Science in Vocational-Technical Education, and are designed to prepare individuals for employment in education and industry. Successful graduates of Associate of Applied Science degree and technical certificate programs are employed as technicians in their respective technical field. Graduates in technology education may be certified for teaching in middle schools, junior high schools, and/or high schools. Graduates of the technology programs find employment in administrative or supervisory positions in industrial organizations and assume responsibilities in areas of product development, manufacturing, sales and distribution, training or in teaching. They have the practical skills, technical knowledge, and organizational competence required of mid-level management personnel.

Two-Year Technical Certificate in Electrical Technology

The two-year technical certificate is for those individuals who want the electrical training and certification without taking general education courses.

First Year

First Semester (13 hours)
ET 181: Residential Wiring Methods ....................... 5
ET 182: Residential Wiring Methods Laboratory I ........ 3
ET 183: Fundamentals of Electricity ........................ 3
ET 184: Special Project ........................................ 2

Second Semester (13 hours)
ET 185: Electrical Machinery and Equipment .......... 5
ET 186: Electrical Machinery and Equipment Laboratory I ......................................................... 3
ET 187: Electrical Estimating and Blueprint Reading ................................................................. 3
ET 188: Special Project ........................................ 2

Summer Session (6 hours)
ET 299: Cooperative Industrial Training (Electrical Internship) ................................................. 6

*Note: The "on-the-job" Internship (ET 299) is required of all Electrical Technology students.

Second Year

Fourth Semester (13 hours)
ET 282: Motor Control Fundamentals ....................... 5
ET 283: Motor Control Fundamentals Laboratory I ................................................................. 3
ET 284: National Electrical Code ........................................ 3
ET 285: Special Project ........................................ 2
Fifth Semester (14 hours)
ET 286: Industrial and Commercial Wiring Methods ........................................ 5
ET 287: Industrial and Commercial Wiring
Methods Laboratory I ................................................................. 3
ET 288: Journeyman Electrical Certification ........................................ 3
ET 289: Special Project ................................................................. 3

Total hours for Two-Year Technical Certificate in Electrical Technology (59 hours)

Associate of Applied Science Degree with a Major in Electrical Technology
The Associate of Applied Science Degree is for those individuals who seek electrical training and certification plus additional preparation for advancement into management, engineering, sales or other related areas.

General Education (14-18 hours)

Basic Skills (6 hours)
ENGL 101: English Composition ..................................................... 3
COMM 207: Speech Communication ................................................. 3

Core Courses (3 hours)
PSYCH 155: General Psychology ..................................................... 3
or POLS 101: U.S. Politics ................................................................. 3
or PHIL 208: Logic and Critical Thinking ......................................... 3

Approved General Education Electives for Electrical Technology Program, chosen from two different programs [prefixes]:

Minimum
MATH 110: College Algebra with Review ....................................... 5
MATH 113: College Algebra ............................................................. 3
MATH 133: Quantitative Reasoning ............................................... 3
MATH 143: Elementary Statistics .................................................. 3
PHYS 171: Physical Science ............................................................ 3
and PHYS 172: Physical Science Laboratory ................................ 1
MGMKT 101: Introduction to Business ......................................... 3
ACCTG 201: Financial Accounting ............................................... 3
CIS 130: Computer Information Systems ....................................... 3

GT 190: Introduction to Technological Systems .................... 2
ECON 191: Issues in Today's Economy ............................... 3

First Year

First Semester (16 hours)
ET 181: Residential Wiring Methods ....................................... 5
ET 182: Residential Wiring Methods Laboratory I ............ 3
ET 183: Fundamentals of Electricity .......................................... 3
ET 184: Special Project ................................................................. 2
ENGL 101: English Composition ................................................. 3

Second Semester (16 hours)
ET 185: Electrical Machinery and Equipment ....................... 5
ET 186: Electrical Machinery and Equipment Laboratory I ............. 3
ET 187: Electrical Estimating and Blueprint Reading .................. 3
ET 188: Special Project ................................................................. 2
COMM 207: Speech Communication ................................................. 3

Summer Session (8-9 hours)
ET 299: Cooperative Industrial Training (Electrical Internship) ............. 6

• Approved general education elective (2-3 hours)

Note: The "on-the-job" Internship (ET 299) is required of all Electrical Technology students.

Second Year

Fourth Semester (16 hours)
ET 282: Motor Control Fundamentals ...................................... 5
ET 283: Motor Control Fundamentals Laboratory I .................. 3
ET 284: National Electrical Code ............................................... 3
ET 285: Special Project ................................................................. 2
PSYCH 155: General Psychology .................................................. 3
or POLS 101: U.S. Politics ................................................................. 3
or PHIL 208: Logic and Critical Thinking ......................................... 3

Fifth Semester (17 hours)
ET 286: Industrial and Commercial Wiring Methods ............ 5
ET 287: Industrial and Commercial Wiring .................................................................3
ET 288: Journeyman Electrical Certification .........................................................3
ET 289: Special Project ..................................................................................................3

- Approved general education elective (2-3 hours)

Total minimum hours for Associate of Applied Science Degree with a Major in Electrical Technology (73 hours)

Students may enter the program at the first or second semester, per space availability.

**Associate of Applied Science Degree with a Major in Wood Technology**

The degree prepares graduates in traditional and modern production practices associated with the furniture manufacturing, store fixture, and architectural wood working industries.

The AAS in Wood Technology major may choose between either a specialization in Wood Product Manufacturing or Residential Construction. The degree provides graduates with technical information and skills for working in these industries.

**General Education (18-19 hours)**

**Basic Skills (12 hours)**

ENGL 101: English Composition .................................................................................3
COMM 207: Speech Communication ........................................................................3
MATH 113: College Algebra .....................................................................................3
CIS 130: Computer Information Systems .................................................................3
MATH 113 or approved substitute

CIS 130 or demonstrated computer proficiency

**Core Courses (3 hours)**

PSYCH 155: General Psychology .............................................................................3

**Approved General Education Electives chosen from: (3-4 hours)**

MATH 122: Plane Trigonometry ...............................................................................3
ACCTG 201: Financial Accounting ..........................................................................3

CHEM 105: Introductory Chemistry ..........................................................3
and CHEM 106: Introductory Chemistry Laboratory ........................................1

- Electives approved by advisor (3-4 hours)

**Technical Courses (33 hours)**

**Wood Technology Area**

WT 182: Wood Science .................................................................................................3
WT 185: Fundamentals of Wood Technology .........................................................3
WT 282: Machine Woodworking .............................................................................3
WT 286: Primary Wood Processing .........................................................................3
WT 300: Wood Internship (___) .............................................................................3-6
WT 301: Finishing .......................................................................................................3
WT 333: Tool Technology ..........................................................................................3
WT 383: Computer-Aided Manufacturing in Wood Technology .........................3
WT 412: Overlay and Laminate Materials .................................................................3
WT 511: Production Techniques in Woods .............................................................3
WT 525: Cabinets and Fixtures ...............................................................................3-5

**At Least One Of The Following Two Emphasis Areas Must Be Completed:**

**Emphasis Area One: Wood Product Manufacturing (15 hours)**

WT 326: CAD for Wood Product Development II ........................................3
WT 454: CNC Application for Wood Industry ....................................................3
WT 585: Wood Production Estimating .................................................................3
WT 691: Furniture Design and Development .....................................................3
WT 692: Furniture Manufacturing .........................................................................3-5

**Emphasis Area Two: Residential Construction (15 hours)**

CMCET 133: Construction Graphics ........................................................................3
WT 382: Construction Methods and Materials ....................................................3
CMCET 631: Construction Estimating I .................................................................3
WT 682: Residential Construction Software: Planning and Management ........3

- Approved technology elective (construction, wood, or safety) (3 hours)
Total hours for Associate of Applied Science Degree with a Major in Wood Technology (66-67 hours)

Bachelor of Applied Science Degree with a Major in Technology
This program offers students who have graduated from an accredited two-year associate degree technical program the opportunity to extend their education and training. All associate degree graduates (with a minimum GPA of 2.50) can automatically transfer up to 64 college credits to Pittsburg State. Graduates receive a Bachelor of Applied Science degree with a major in technology and a selected emphasis by completing an additional minimum of 60 hours from PSU. The degree program content is based on previous academic and technical preparation.

Like two-year technical programs, this bachelor degree gives students complete, hands-on training for a real-world job. Students learn engineering technology, theory, logic, leadership, and business skills to broaden their knowledge, and to better prepare them for management opportunities. Coursework is both specialized and comprehensive. Emphasis areas are similar to the programs completed in the associate degrees. The technical emphasis in the Technology and Workforce Learning department are Wood Emphasis, Technology Management and Technical Teacher Education Emphasis.

Degree Requirements

General Education (Minimum 36 hours)

Basic Skills (9 hours)
ENGL 101: English Composition .................. 3
ENGL 299: Introduction to Research Writing ........ 3
or ENGL 301: Technical/Professional Writing ........ 3
COMM 207: Speech Communication .................. 3

ENGL 301 or substitute
COMM 207 or substitute

Behavioral, Social, History & Political Studies (6 hours)
SOC 100: Introduction to Sociology .................. 3
or POLS 101: U.S. Politics ................................ 3
or HIST 201: American History to 1865 ............... 3
or GT 350: Technology and Civilization ............... 3
or TM 350: Societal Influence of Technology ........... 3
PSYCH 155: General Psychology ..................... 3
or PSYCH 575: Industrial and Organizational Psychology ........................................ 3

TM 350 or Social Science and/or Political Studies Elective

Mathematics (6 hours)
MATH 113: College Algebra .......................... 3
or MATH 114: Elements of Technical Analysis ........ 3
MATH 143: Elementary Statistics .................... 3

MATH 114 or mathematics substitute
MATH 143 or math substitute (MATH 143 required for MFGET 405 Quality Control)

Sciences (Minimum 6 hours) (8 hours)
BIOL 113: Environmental Life Science ............... 4
PHYS 171: Physical Science ........................... 3
PHYS 172: Physical Science Laboratory .............. 1

BIOL 113 or natural science substitute
PHYS 171 or physical science substitute

Producing and Consuming (3 hours)
ACCTG 201: Financial Accounting .................. 3

ACCTG 201 or approved business substitute
Fine Arts (Choose one) (3 hours)
ART 178: Introduction to the Visual Arts .........................3
COMM 105: Performance Appreciation ............................3
COMM 205: Performance Studies ..................................3
HHP 151: Dance Appreciation ......................................3
MUSIC 120: Music Appreciation (____) ..........................3

- Approved Humanities (e.g., Ethics) (3 hours)

Cultural Studies (choose one) (3 hours)
GEOG 300: Elements of Geography ...............................3
GEOG 304: Human Geography ....................................3

- Approved elective from cultural studies (3 hours)

Business Support Courses

Business Courses (9 hours)
MGMKT 327: Organizational Theory and Behavior ...............3
MGMKT 444: Legal and Social Environment of Business .........3
MGMKT 629: Human Resource Management ...................3
or MGMKT 330: Basic Marketing ..................................3

MGMKT 330 or approved 300 and above business-related elective (e.g. TQM)

Wood Emphasis Courses

Technology Management (Organization and Leadership)#
TTED 606: Industrial Supervision .................................3
or MFGET 405: Quality Control ....................................3
EST 393: Introduction to Industrial Safety .......................3
WT 426: Millwork and Casework ..................................3
WT 602: Manufacturing Facility Maintenance and Management ..................................................3

#Training (Technical-Related Education and Education) courses may be substituted for candidates interested in more of a “training emphasis”.

Technical Specialization, Support and Electives

Wood Tech Emphasis Core Courses (9 hours)
WT 300: Wood Internship (____) .................................3-6
WT 399: Wood Technology Professional Development ........2
WT 585: Wood Production Estimating ............................3
WT 699: Wood Technology Senior Seminar ....................1

Technical Specialization (36+ hours)
(These are community college transfer credits; technical component of AAS degree)

Wood Tech Electives (Select 15 hours from below)#
WT 182: Wood Science ..............................................3
WT 383: Computer-Aided Manufacturing in Wood Technology ..................................................3
WT 400: Wood Internship (____) .................................3-6
WT 454: CNC Application for Wood Industry ..................3
WT 511: Production Techniques in Woods .....................3
WT 523: Computer Applications in Cabinetmaking ..........3
WT 525: Cabinets and Fixtures .................................3-5
WT 691: Furniture Design and Development ..................3
WT 692: Furniture Manufacturing ...............................3-5

- Technical elective approved by advisor (3 hours)

WT 525 Cabinets and Fixtures and WT 692 Furniture Manufacturing must be taken for three hours each if they are chosen.

#Training (Technical-Related Education and Education) courses, may be substituted for candidates interested in more of a "training emphasis".
Technology Management Emphasis
Courses

Technology Management (Organization and Leadership)# (12 hours)
TTED 606: Industrial Supervision .................................................. 3
TM 503: Facility Maintenance and Management ............ 3
or WT 602: Manufacturing Facility Maintenance and Management .................................................. 3
EST 393: Introduction to Industrial Safety .................... 3
or EST 396: Introduction to Construction Safety ........... 3
or EST 512: Risk Assessment .................................................. 3
or EST 604: Occupational Health and Safety .......... 3
or EST 630: Safety Management ........................................ 3
TM 500: Industrial Organization and Technology Management .................................................. 3
EST 393 or approved substitute safety course

Technical Specialization, Support and Electives

Technical Specialization Courses (40 hours)
(These are community college transfer credits; technical component of AAS degree)

Technology Management Support Courses (15 hours)
TM 399: Technology Management Professional Development .................................................................................. 2
MGET 405: Quality Control .................................................. 2
TM 501: Work Measurement and Efficiency Methods .................................................................................. 3
TM 520: Leadership in the Workplace .................................... 3
TM 683: Internship in Technology Management ............ 3-6
TM 699: Senior Assessment in Technology Management .................................................................................. 1
MGET 405 or approved substitute

Electives (Business, Education, and Technology classes selected in consultation with advisor) (12 hours)

Total minimum hours required for Bachelor of Applied Science Degree with a Major in Technology (124 hours)

Technical Teacher Education Emphasis

General Education (Minimum 41 hours)

Basic Skills (9 hours)
ENGL 101: English Composition .................................................. 3
ENGL 299: Introduction to Research Writing .................. 3
or ENGL 301: Technical/Professional Writing ................. 3
COMM 207: Speech Communication .................................. 3

ENGL 301 or substitute
COMM 207 or substitute

Behavioral, Social, History & Political Studies (9 hours)
GT 350: Technology and Civilization ........................................ 3
or TM 350: Societal Influence of Technology .................. 3
PSYCH 155: General Psychology ........................................ 3
PSYCH 263: Developmental Psychology ......................... 3

TM 350 or approved social science or history substitute

Mathematics (6 hours)
MATH 113: College Algebra .................................................. 3
MATH 143: Elementary Statistics ........................................ 3

MATH 113 or approved mathematics substitute
MATH 143 or math substitute

Sciences (Minimum 6 hours) (8 hours)
BIOL 113: Environmental Life Science .................................. 4
PHYS 171: Physical Science .................................................. 3
PHYS 172: Physical Science Laboratory .......................... 1
BIOL 113 or natural science substitute

PHYS 171 or physical science substitute

**Producing and Consuming (3 hours)**

ACCTG 201: Financial Accounting ..................................3

ACCTG 201 or approved business substitute

**Fine Arts (3 hours)**

- Approved Art, Music or Theater Elective (3 hours)

**Cultural Studies (3 hours)**

- Approved Geography or Foreign Language elective (3 hours)

**Business Support Courses**

**Business courses (9 hours)**

MGMKT 327: Organizational Theory and Behavior.................................................................3

MGMKT 444: Legal and Social Environment of Business .........................................................3

MGMKT 330: Basic Marketing .........................................................3

MGMKT 330 or approved substitution

**Technical Teacher Education Emphasis Courses**

**Core Courses (14 hours)**

TTED 606: Industrial Supervision ..................................3

TTED 308: Laboratory and Shop Safety ..................................3

TTED 619: Planning Shop Layout for Vocational Education ................................................3

TTED 483: Teaching Internship ..................................................5

TTED 606 or approved substitution

**Technical Specialization, Support and Electives**

**Technical Specialization Courses (40 hours)**

(These are community college transfer credits; technical component of AAS degree)

**Technical Teacher Education Emphasis Courses (20 hours)**

TTED 193: Workshop for Beginning Vocational Teachers ..........................................................3

TTED 391: Student Assessment Development in Vocational/Technical Education .........................3

TTED 395: Task Analysis for Technical Teachers .................................................................1

TTED 396: Curriculum Usage in Technical Education ............................................................2

TTED 479: Techniques for Teaching Vocational-Technical Education .........................................3

TTED 608: Components of Work-based Learning in Career and Technical Education .................3

TTED 695: Using Technology as an Instructional Tool ..................................................................2

TTED 780: Classroom Management in Career and Technical Education .....................................3

TTED/COT elective(s) approved and assigned by advisor (e.g., This allows flexibility if students have completed similar course elsewhere).

Total minimum hours required for Bachelor of Science Degree with a Major in Technology, Technical Teacher Education Emphasis (124 hours)

**Note: Three additional courses are required for certification in Kansas:**

PSYCH 357: Educational Psychology ..................................3

TTED 694: Principles of Vocational Education ..................................3

TTED 697: Identification and Instruction of Students with Special Needs ..................................3
Bachelor of Science Degree with a major in Workforce Development

- Emphasis I. Supervision and Leadership
- Emphasis II. Human Resources

Prerequisite: Students accepted to the program must have an Associate Degree (AA or AS) from an accredited institution.

Associate Degree (64 hours)

If the following General Education requirements have not been fulfilled as part of the student’s Associate Degree program, then prior to completion of the BS degree, the student must have completed each of the following General Education requirements, any of which may have been part of the Associate Degree. These courses are in addition to the 60 hours offered by Pittsburg State University.

ENGL 101: English Composition ........................................... 3
ENGL 299: Introduction to Research Writing ............................ 3
COMM 207: Speech Communication ...................................... 3
MATH 113: College Algebra .............................................. 3
SOC 100: Introduction to Sociology ........................................ 3
or PSYCH 155: General Psychology .................................... 3
POLS 101: U.S. Politics ....................................................... 3

- Physical Science course with laboratory (life science can also be used) (4 hours)
- Humanities - Music, Art, Theater, Dance (3 hours)

MATH 113 or approved math substitute course

Core Requirements (to be taken from PSU) (27 hours)

General Education-Related Courses (18 hours)

TM 350: Societal Influence of Technology ............................. 3
or GT 350: Technology and Civilization ................................ 3
TM 555: Diversity in Technology Management ........................ 3
PSYCH 575: Industrial and Organizational Psychology .......... 3

SOC 360: Community Sociology ......................................... 3
JUST 223: Basic Interviewing and Counseling Skills .................... 3
COMM 629: Theories of Human Communication .................. 3

Elective (by advisement) (1 hour)

Business Related Courses (9 hours)

MATH 143: Elementary Statistics ....................................... 3
MGMKT 330: Basic Marketing ........................................... 3
MGMKT 444: Legal and Social Environment of Business ......... 3

Workforce Development Courses (12 hours)

EST 393: Introduction to Industrial Safety ............................ 3
or EST 512: Risk Assessment .......................................... 3
TM 390: Trade and Job Analysis ....................................... 3
TM 399: Technology Management Professional Development .......... 2
TM 520: Leadership in the Workplace .................................. 3
TM 699: Senior Assessment in Technology Management ........... 1

Emphasis I. Supervision & Leadership Courses (21 hours)

MGET 405: Quality Control ............................................. 3
MGMKT 327: Organizational Theory and Behavior ................. 3
EST 630: Safety Management ......................................... 3
TTED 606: Industrial Supervision ..................................... 3
TM 500: Industrial Organization and Technology Management ...... 3
TM 501: Work Measurement and Efficiency Methods ............ 3
TM 503: Facility Maintenance and Management .................. 3

OR

Emphasis II. Human Resource Courses (21 hours)

HRD 575: Instructional Media in Human Resource Development .......... 3
Bachelor of Science in Technology Degree with a Major in Wood Technology

The BST in Wood Technology majors may pursue one or more of the three specializations: Wood Product Manufacturing, Residential Construction and Wood Teacher Training. Program prepares students with technical and management courses for success in a variety of wood industry-related professional positions.

General Education*

Basic Skills (12 hours)
ENGL 101: English Composition ........................................ 3
ENGL 190: Honors English Composition ............................. 3
or ENGL 299: Introduction to Research Writing .............. 3
COMM 207: Speech Communication ................................. 3
MATH 110: College Algebra with Review ......................... 5
or MATH 113: College Algebra ........................................... 3
or MATH 133: Quantitative Reasoning ................................. 3

General Education Electives (34-41 hours)

Sciences (8-9 Hours)

Natural Sciences (Select one)
BIOL 111: General Biology .................................................. 3
and BIOL 112: General Biology Laboratory .................... 2
BIOL 113: Environmental Life Science .............................. 4
BIOL 211: Principles of Biology I ....................................... 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry .................................... 3
and CHEM 106: Introductory Chemistry Laboratory ............ 1
CHEM 107: Chemistry for the Life Sciences .................... 3
and CHEM 108: Chemistry for the Life Sciences Laboratory 1
PHYS 160: Physical Geology ........................................... 3
and PHYS 165: Physical Geology Laboratory ................. 1
PHYS 171: Physical Science ........................................... 3
and PHYS 172: Physical Science Laboratory .................. 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology .................................... 3
WOMEN 200: Introduction to Women's Studies .................. 3

Political Studies (3 hours)
POLS 101: U.S. Politics .................................................... 3

Producing and Consuming (5-6 hours)
GT 190: Introduction to Technological Systems ............... 2
or GT 350: Technology and Civilization .......................... 3
ACCTG 201: Financial Accounting ................................. 3
ci CIS 130: Computer Information Systems .................. 3
or MGMKT 101: Introduction to Business ...................... 3

Fine Arts and Aesthetic Studies (Select one) (2-3 hours)
ART 155: Printmaking and Paper Arts ............................ 3
ART 178: Introduction to the Visual Arts ......................... 3
ART 188: The Designed World ........................................ 3
ART 217: Crafts I .......................................................... 3
ART 222: Jewelry Design I ............................................... 3
ART 233: Drawing I ........................................................ 3
ART 244: Ceramics I ........................................................ 3
ART 266: Sculpture I ......................................................... 3
ART 277: Painting I .......................................................... 3
ART 288: Western Art History I ........................................ 3
ART 289: Western Art History II .................................... 3
ART 311: Art Education ...................................................... 3
COMM 105: Performance Appreciation .......................... 3
COMM 205: Performance Studies .................................... 3
COMM 295: Theatre History (____) ................................. 3
ENGL 250: Introduction to Creative Writing .................... 3
HHP 151: Dance Appreciation ........................................ 3
MUSIC 120: Music Appreciation (____) ......................... 3
MUSIC 121: Introduction to Music Literature ................. 2
MUSIC 321: History of Music .......................... 3
Music 120 Music Appreciation (Classical, Jazz, or World Music)

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I .............. 5
MLL 124: French Language and Culture I ................ 5
MLL 154: Spanish Language and Culture I ............... 5
MLL 184: Russian Language and Culture I ............... 5
MLL 194: Korean Language and Culture I ............... 5
GEOG 106: World Regional Geography .................. 3
GEOG 300: Elements of Geography ...................... 3
GEOG 304: Human Geography ........................... 3
WOMEN 399: Global Women's Issues ................... 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology .......................... 3

Physical (Select one)
FCS 203: Nutrition and Health ......................... 3
FCS 301: Nutrition .................................... 3
HHP 150: Lifetime Fitness Concepts .................... 1
NURS 303: Introduction to Public Health .............. 3

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ......................... 3
HIST 102: World History from 1500 ...................... 3
HIST 201: American History to 1865 .................... 3
HIST 202: American History from 1865 .................. 3

Literature
ENGL 113: General Literature .......................... 3
ENGL 114: General Literature (Genre) ................... 3
ENGL 116: General Literature (Theme) ................... 3
ENGL 315: Mythology .................................. 3
ENGL 320: Literature and Film .......................... 3

Philosophy
PHIL 103: Introduction to Philosophy ................... 3

PHIL 105: Ethics ........................................... 3
PHIL 111: Ethics: Applied Emphasis (____) .............. 3
PHIL 112: Biomedical Ethics ............................ 3
PHIL 113: Business Ethics ............................... 3
PHIL 114: Environmental Ethics .......................... 3
PHIL 208: Logic and Critical Thinking ................... 3
PHIL 231: World Religions ............................. 3
Total General Education Requirements (46-53 hours)

*For specific courses see general education degree requirements, General Education Requirements for All Baccalaureate Degrees.

Support Courses (12 hours)
MATH 122: Plane Trigonometry .......................... 3
or MATH 143: Elementary Statistics ...................... 3
ECON 200: Introduction to Microeconomics ............ 3
ENGL 301: Technical/Professional Writing ............... 3
MGMKT 330: Basic Marketing ............................ 3

Technical Courses

Wood Technology Area
WT 182: Wood Science .................................. 3
WT 185: Fundamentals of Wood Technology .......... 3
WT 226: CAD for Wood Product Development .......... 3
or GT 360: Computer Aided Drafting .................... 3
go GT 361: Technical Graphics with AutoCAD ........ 2
and GT 362: AutoCAD Applications (____) ............. 1
WT 282: Machine Woodworking ........................ 3
WT 286: Primary Wood Processing ....................... 3
WT 301: Finishing ....................................... 3
WT 333: Tool Technology ................................ 3
WT 383: Computer-Aided Manufacturing in Wood Technology ........................................ 3
WT 399: Wood Technology Professional Development ........................................ 2
WT 412: Overlay and Laminate Materials ............... 3
WT 426: Millwork and Casework ......................... 3
WT 511: Production Techniques in Woods ............... 3
WT 523: Computer Applications in Cabinetmaking ........................................ 3
WT 525: Cabinets and Fixtures .......................... 3-5
WT 602: Manufacturing Facility Maintenance and Management ........................................ 3

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WT 699: Wood Technology Senior Seminar .................1

WT 525 Cabinets and Fixtures must be taken for three hours.

**General Technology Support Courses**
Choose between Wood Product Manufacturing or Residential Construction Emphasis or Wood Teacher Training- Technical Education Emphasis.

**Wood Product Manufacturing or Residential Construction Emphasis (6 hours)**
EST 393: Introduction to Industrial Safety ......................3
EST 396: Introduction to Construction Safety ..................3
MFGET 405: Quality Control .........................................3
TTED 606: Industrial Supervision ...................................3
WT 400: Wood Internship (____) ....................................3-6

**Wood Teacher Training- Technical Education Emphasis (7 hours)**
TTED 479: Techniques for Teaching Vocational-Technical Education ..................................................3
TTED 695: Using Technology as an Instructional Tool .................................................................2
TTED 698: School Improvement Processes in Career and Technical Education ....................................2

**At Least One of the Following Emphasis Areas Must Be Completed**

**Emphasis Area One: Wood Product Manufacturing (18 hours)**
WT 300: Wood Internship (____) ....................................3-6
WT 326: CAD for Wood Product Development II ...........3
WT 454: CNC Application for Wood Industry ................3
WT 585: Wood Production Estimating ............................3
WT 691: Furniture Design and Development ..................3
WT 692: Furniture Manufacturing .................................3-5

WT 300 Internship should be taken as Product Manufacturing.

WT 692 Furniture Manufacturing must be taken for three hours.

**Emphasis Area Two: Residential Construction (15 hours)**
WT 300: Wood Internship (____) ....................................3-6
WT 382: Construction Methods and Materials ...............3
CMCET 537: Construction Surveying I ..........................3
CMCET 631: Construction Estimating I ..........................3
WT 682: Residential Construction Software:
Planning and Management .........................................3

WT 300 Wood Internship should be taken as Residential Construction.

CMCET 631 or approved CMCET or WT substitute.

**Emphasis Area Three: Wood Teacher Training (18 hours)**
Technical Education**

TTED 391: Student Assessment Development in Vocational/Technical Education .................................3
TTED 395: Task Analysis for Technical Teachers ............1
TTED 396: Curriculum Usage in Technical Education ..................2
TTED 608: Components of Work-based Learning in Career and Technical Education ........................3
TTED 694: Principles of Vocational Education ..................3
TTED 697: Identification and Instruction of Students with Special Needs ........................................3
or SPED 510: Overview of Special Education ...............3
TTED 780: Classroom Management in Career and Technical Education ..................................3

Total minimum hours required for degree (124 hours).

**Those seeking teacher certification, additional coursework required. See Technical Teacher Education advisor for more information.**
Bachelor of Science in Education Degree with a Major in Technology and Engineering Education
The curriculum leads to the degree of Bachelor of Science in Education with a major in technology and engineering education. The student needs to complete the thirty-two hour technology education core and meet the teacher education and general education requirements for a teaching certificate. A minimum of thirty hours of technology education course work needs to be completed at Pittsburg State University. Students in technology and engineering education can take any course in the College of Technology for which they have the necessary prerequisites. Students successfully completing this program can receive a Kansas teaching license for Technology Education (typically middle school and entry-level high school technology courses). Technology and engineering education majors must apply to the College of Education, Room 115 Hughes Hall, for admission to teacher education during the second semester of their sophomore year. Students transferring in as juniors must apply during their first semester on campus. Refer to the Teacher Education section of this University Catalog for criteria for admission to teacher education and to the professional semester.

General Education Degree Requirements for Students Preparing to Teach*

Basic Skills (12 hours)
ENGL 101: English Composition ...............................3
ENGL 190: Honors English Composition ................3
or ENGL 299: Introduction to Research Writing ..........3
COMM 207: Speech Communication .........................3
MATH 113: College Algebra ..................................3
or MATH 110: College Algebra with Review ..............5
Must have a grade of "C" or better in each of the basic skills courses.

General Education Electives (35-41 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)
BIOL 111: General Biology ....................................3
and BIOL 112: General Biology Laboratory ...............2
BIOL 113: Environmental Life Science .....................4
BIOL 211: Principles of Biology I ............................4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry .........................3
and CHEM 106: Introductory Chemistry Laboratory ...........................................1
PHYS 160: Physical Geology ................................3
and PHYS 165: Physical Geology Laboratory ............1
PHYS 162: Physical Oceanography .........................3
and PHYS 163: Physical Oceanography Laboratory ....1
PHYS 166: Meteorology .....................................3
and PHYS 167: Meteorology Laboratory ....................1
PHYS 171: Physical Science ................................3
and PHYS 172: Physical Science Laboratory .............1
PHYS 175: Descriptive Astronomy .........................3
and PHYS 176: Astronomy Laboratory ....................1
PHYS 375: Solar System Astronomy .......................3
and PHYS 176: Astronomy Laboratory ....................1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology ......................3
WOMEN 200: Introduction to Women's Studies.........3

Political Studies (3 hours)
POLS 101: U.S. Politics .......................................3

Producing and Consuming (6 hours)
TE 551: Integrated Technology for Educators ............3
ACCTG 201: Financial Accounting ......................3
or CIS 130: Computer Information Systems ............3
or MGMT 101: Introduction to Business .................3
or ECON 191: Issues in Today's Economy ...............3
or FCS 230: Consumer Education and Personal Finance ..............................................3
Fine Arts and Aesthetic Studies (select one) (2-3 hours)
ART 155: Printmaking and Paper Arts .................. 3
ART 178: Introduction to the Visual Arts ............. 3
ART 188: The Designed World .......................... 3
ART 217: Crafts I ....................................... 3
ART 222: Jewelry Design I ............................... 3
ART 233: Drawing I ....................................... 3
ART 244: Ceramics I ....................................... 3
ART 266: Sculpture I ....................................... 3
ART 277: Painting I ....................................... 3
ART 288: Western Art History I ......................... 3
ART 289: Western Art History II ......................... 3
ART 311: Art Education ................................ 3
COMM 105: Performance Appreciation ............... 3
COMM 205: Performance Studies ....................... 3
COMM 295: Theatre History (___) ....................... 3
ENGL 250: Introduction to Creative Writing .......... 3
HHP 151: Dance Appreciation .......................... 3
MUSIC 120: Music Appreciation (___) ................. 3
MUSIC 121: Introduction to Music Literature .......... 2
MUSIC 321: History of Music ............................ 3

Cultural Studies (Select one) (3-5 hours)
MLL 114: Chinese Language and Culture I .......... 5
MLL 124: French Language and Culture I .......... 5
MLL 154: Spanish Language and Culture I .......... 5
MLL 184: Russian Language and Culture I .......... 5
MLL 194: Korean Language and Culture I .......... 5
GEOG 106: World Regional Geography ............... 3
GEOG 300: Elements of Geography ................... 3
GEOG 304: Human Geography .......................... 3
WOMEN 399: Global Women's Issues ................. 3

Health and Well Being (4-6 hours)

Psychological
PSYCH 155: General Psychology ....................... 3

Physical (Select one)
FCS 203: Nutrition and Health ........................ 3
FCS 301: Nutrition ...................................... 3
HHP 150: Lifetime Fitness Concepts .................. 1
NURS 303: Introduction to Public Health .......... 3

Human Heritage (Select one from two of the following three categories) (6 hours)

History
HIST 101: World History to 1500 ....................... 3
HIST 102: World History from 1500 ................. 3
HIST 201: American History to 1865 ................. 3
HIST 202: American History from 1865 .......... 3

Literature
ENGL 113: General Literature .......................... 3
ENGL 114: General Literature (Genre) ............... 3
ENGL 116: General Literature (Theme) ............... 3
ENGL 315: Mythology ................................ 3
ENGL 320: Literature and Film ................. 3

Philosophy
PHIL 103: Introduction to Philosophy ................. 3
PHIL 105: Ethics ........................................ 3
PHIL 111: Ethics: Applied Emphasis (___) ........... 3
PHIL 112: Biomedical Ethics ......................... 3
PHIL 113: Business Ethics ............................. 3
PHIL 114: Environmental Ethics ....................... 3
PHIL 208: Logic and Critical Thinking ................ 3
PHIL 231: World Religions ........................... 3
Total General Education Requirement hours (47-53 hours)

*For specific courses see general education degree requirements, General Education Requirements for Students Preparing to Teach Secondary School.

Education and Psychology Requirements* (32 hours)
PSYCH 263: Developmental Psychology ............. 3
EDUC 261: Explorations in Education ................. 3
PSYCH 357: Educational Psychology ................. 3
SPED 510: Overview of Special Education ........... 3
EDUC 520: Methods and Materials for Academic Literacy ........................................ 3
TE 579: Supervised Student Teaching and Follow-Up of Teachers .......................... 2
• Professional Semester (including TE 579) (17 hours)

*See Admission to Professional Semester for professional education grade point requirements.

Must be admitted to Teacher Education to enroll in PSYCH 357 and EDUC 520.

Technology and Engineering Education
Core (32 hours)
GT 130: Applications in STEM ........................................... 3
GT 191: Foundations of Technology and Engineering ....................................................... 2
GT 300: Engineering Design and Problem Solving ........ 3
GT 310: Contextual Topics in Technology and Engineering ....................................................... 3
GT 320: Communication Systems in Technology ........ 3
GT 330: Engineering Materials and Processes ........ 3
GT 340: Power/Energy/Transportation Systems ........ 3
GT 360: Computer Aided Drafting ................................. 3
GT 370: Construction Systems Technology ........ 3
GT 380: Manufacturing Enterprise ................................. 3
GT 390: Automated Systems ......................................... 3

Technology and Engineering Education
Professional Core (11 hours)
TE 420: Professional Development 1 ...................... 2
TE 421: Professional Development 2 ...................... 2
TE 479: Teaching Techniques for Technology and Engineering Education ................................. 3
TE 496: Organization and Management for Technology and Engineering Education ..................... 3
TE 551: Integrated Technology for Educators ................ 3
TE 679: Senior Assessment in Technology and Engineering Education ................................. 1

Total hours required for degree (124 hours)*

TE 551 is not included in core total; hours calculated in general education total.

*Electives may be needed to meet 124 hour requirement.

Students planning to teach should become familiar with the current Regulations for Certifying School Personnel, issued by The State Board of Education. Information concerning these regulations may be obtained from the Director of Teacher Education, 110 Hughes Hall, Pittsburg State University.

Second Teaching Option
For students who major in other teaching areas, this option can open additional teaching positions. Students successfully completing this second teaching option can receive a teaching license for General Technology Education (typically middle school and entry-level high school technology courses). Interested teaching candidates should contact the chairperson of the Department of Technology and Workforce Learning, or the Certification Specialist in the College of Education, Room 110 Hughes Hall, for specific requirements.

Course for Second Teaching Option (31 hours)
GT 300: Engineering Design and Problem Solving ........ 3
GT 320: Communication Systems in Technology ........ 3
GT 330: Engineering Materials and Processes ........ 3
TE 331: Overview of Technology ................................. 3
GT 340: Power/Energy/Transportation Systems ........ 3
GT 350: Technology and Civilization ............................ 3
GT 370: Construction Systems Technology ................ 3
GT 380: Manufacturing Enterprise ............................ 3
TE 479: Teaching Techniques for Technology and Engineering Education ................................. 3
TE 496: Organization and Management for Technology and Engineering Education ..................... 3
TE 551: Integrated Technology for Educators ................ 3
TE 679: Senior Assessment in Technology and Engineering Education ................................. 1

GT 350 and TE 551: 3 hours not included in core total; 3 hours of GT 350 or TE 551 can be taken as General Education requirement.

Must be admitted to Teacher Education to enroll in TE 479.
Bachelor of Science in Vocational Technical Education
The Bachelor of Science in Vocational Technical Education degree curriculum is organized with two options which are designed to meet the needs of persons with different work experience backgrounds.

Private Sector Option I of the curriculum is designed for persons who have completed a vocational-technical education program in an accredited public sector institution who have less than two years of work experience above the learner's level in one of the industrial or technical occupations taught in Kansas.

Public Sector Option II of the curriculum is designed to provide specialized teacher education for persons teaching or preparing to teach in trade and industrial technical programs.

Credit of up to 24 semester hours is granted on an individual basis in the two options based on occupational competency.

Baccalaureate Degree Requirements for Private Sector Option I

General Education Requirements for students preparing to teach in a private sector setting

Basic Skills (12-13 hours)
COMM 207: Speech Communication ......................... 3
ENGL 101: English Composition ................................ 3
ENGL 190: Honors English Composition .................... 3
or ENGL 299: Introduction to Research Writing ............ 3

Mathematics (select one) (3-4 hours)
MATH 110: College Algebra with Review .................. 5
MATH 113: College Algebra .................................... 3
MATH 126: Pre-Calculus ....................................... 4
MATH 133: Quantitative Reasoning ......................... 3
MATH 143: Elementary Statistics ............................ 3

General Education Electives (34-41 hours)

Sciences (8-9 hours)

Natural Sciences (Select one)
BIOL 111: General Biology .................................... 3
and BIOL 112: General Biology Laboratory ................ 2
BIOL 113: Environmental Life Science ...................... 4
BIOL 211: Principles of Biology I ............................. 4

Physical Sciences (Select one)
CHEM 105: Introductory Chemistry ......................... 3
and CHEM 106: Introductory Chemistry Laboratory ... 1
CHEM 107: Chemistry for the Life Sciences ............... 3
and CHEM 108: Chemistry for the Life Sciences Laboratory ......................................................... 1
PHYS 160: Physical Geology .................................. 3
and PHYS 165: Physical Geology Laboratory .......... 1
PHYS 162: Physical Oceanography .......................... 3
and PHYS 163: Physical Oceanography Laboratory ..... 1
PHYS 166: Meteorology ....................................... 3
and PHYS 167: Meteorology Laboratory ................... 1
PHYS 171: Physical Science ................................ 3
and PHYS 172: Physical Science Laboratory ......... 1
PHYS 175: Descriptive Astronomy .......................... 3
and PHYS 176: Astronomy Laboratory .................... 1
PHYS 375: Solar System Astronomy ......................... 3
and PHYS 176: Astronomy Laboratory .................... 1

Social Studies (Select one) (3 hours)
SOC 100: Introduction to Sociology ......................... 3
WOMEN 200: Introduction to Women's Studies ......... 3

Political Studies (3 hours)
POLS 101: U.S. Politics ......................................... 3

Producing and Consuming (Select one from two of the following three categories) (5-6 hours)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 191</td>
<td>Issues in Today's Economy</td>
<td>3</td>
</tr>
<tr>
<td>FCS 230</td>
<td>Consumer Education and Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>EET 247</td>
<td>Computer Programming for Electronic Systems</td>
<td>3</td>
</tr>
<tr>
<td>GT 190</td>
<td>Introduction to Technological Systems</td>
<td>2</td>
</tr>
<tr>
<td>GT 350</td>
<td>Technology and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>TM 350</td>
<td>Societal Influence of Technology</td>
<td>3</td>
</tr>
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<td>Integrated Technology for Educators</td>
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</tr>
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<td>ACCTG 201</td>
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<td>CIS 130</td>
<td>Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGMKT 101</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fine Arts and Aesthetic Studies (select one) (2-3 hours)**

- ART 155: Printmaking and Paper Arts
- ART 178: Introduction to the Visual Arts
- ART 188: The Designed World
- ART 217: Crafts I
- ART 222: Jewelry Design I
- ART 233: Drawing I
- ART 244: Ceramics I
- ART 266: Sculpture I
- ART 277: Painting I
- ART 288: Western Art History I
- ART 289: Western Art History II
- ART 311: Art Education
- COMM 105: Performance Appreciation
- COMM 205: Performance Studies
- COMM 295: Theatre History (_____)
- ENGL 250: Introduction to Creative Writing
- HHP 151: Dance Appreciation
- MUSIC 120: Music Appreciation (_____)
- MUSIC 121: Introduction to Music Literature
- MUSIC 321: History of Music

**Cultural Studies (Select one) (3-5 hours)**

- MLL 114: Chinese Language and Culture I
- MLL 124: French Language and Culture I
- MLL 145: Spanish Language and Culture I
- MLL 184: Russian Language and Culture I
- MLL 194: Korean Language and Culture I
- GEOG 106: World Regional Geography
- GEOG 300: Elements of Geography
- GEOG 304: Human Geography
- WOMEN 399: Global Women's Issues

**Health and Well Being (4-6 hours)**

**Psychological**

- PSYCH 155: General Psychology

**Physical (Select one)**

- FCS 203: Nutrition and Health
- FCS 301: Nutrition
- HHP 150: Lifetime Fitness Concepts
- NURS 303: Introduction to Public Health

**Human Heritage (Select one from two of the following three categories) (6 hours)**

**History**

- HIST 101: World History to 1500
- HIST 102: World History from 1500
- HIST 201: American History to 1865
- HIST 202: American History from 1865

**Literature**

- ENGL 113: General Literature
- ENGL 114: General Literature (Genre)
- ENGL 116: General Literature (Theme)
- ENGL 315: Mythology
- ENGL 320: Literature and Film

**Philosophy**

- PHIL 103: Introduction to Philosophy
- PHIL 105: Ethics
- PHIL 111: Ethics: Applied Emphasis (_____)
- PHIL 112: Biomedical Ethics
- PHIL 113: Business Ethics
- PHIL 114: Environmental Ethics
- PHIL 208: Logic and Critical Thinking
- PHIL 231: World Religions
Vocational Technical Education Major for Option I (30 hours)
Selected from the following courses

ET 299: Cooperative Industrial Training (Electrical Internship) .........................................................6
TM 390: Trade and Job Analysis .................................3
TTED 391: Student Assessment Development in Vocational/Technical Education ................................3
EST 393: Introduction to Industrial Safety ....................3
TTED 395: Task Analysis for Technical Teachers ..........1
EST 396: Introduction to Construction Safety ...............3
TTED 396: Curriculum Usage in Technical Education ..............................................................2
TTED 445: Development of a Unit Study Guide ..........3
TTED 479: Techniques for Teaching Vocational-Technical Education ..................................................3
TTED 606: Industrial Supervision ................................3
TTED 619: Planning Shop Layout for Vocational Education ............................................................3
TTED 695: Using Technology as an Instructional Tool ........................................................................2
TTED 698: School Improvement Processes in Career and Technical Education ................................2
TTED 780: Classroom Management in Career and Technical Education ............................................3

TTED 201 Vocational Work Experience and TTED 401 Vocational Work Experience must both be taken for 12 hours each.

Area of Support Requirements for Option I (21 hours)
Requires study in no more than two departments outside the major selection of courses, as this area should give consideration to study that supports a student's professional development objectives. Examples of outside departments are Chemistry, Computer Science-Information Systems, Military Science, Psychology and Counseling, and Technology and Workforce Learning.

Technical Elective Requirements for Option I (24 hours)
Technical electives may total 24 hours of technical courses that are directly related to the student’s career objective. (Maximum transfer credit of 24 hours in this area)

General Electives (0-3 hours)
Total minimum hours required (124 hours)
TM 390, TTED 391, TTED 445 and TTED 479 are required of all majors.

Baccalaureate Degree Requirements for Public Sector Option II

General Education Requirements for students preparing to teach in a public sector setting@

Communication (9 hours)

- English Composition (6 hours)
- Speech Communication (3 hours)

Social and Behavioral Science (6 hours)

- Economics, geography, political science, psychology, sociology

Mathematics and Science (6 hours)

- Biology, chemistry, mathematics, physics (MATH 017 Elementary Algebra, MATH 019 Intermediate Algebra, or two hours of MATH 110 College Algebra with Review are not accepted for the mathematics and science area of concentration.)
Humanities (6 hours)
- Art, foreign language, history, literature, music, philosophy, theatre

Electives (16 hours)
- To be selected from any course taken outside the College of Technology.

Total (43 hours)

Vocational Technical Education Major for Option II (45 hours)
Selected from the following courses

TTED 193: Workshop for Beginning Vocational Teachers ..................................................3
TTED 201: Vocational Work Experience ..................3-12
TTED 308: Laboratory and Shop Safety ..................3
TM 390: Trade and Job Analysis ..........................3
TTED 391: Student Assessment Development in Vocational/Technical Education ..................3
EST 393: Introduction to Industrial Safety .............3
TTED 395: Task Analysis for Technical Teachers ........1
EST 396: Introduction to Construction Safety ..........3
TTED 396: Curriculum Usage in Technical Education .....................................................2
TTED 401: Vocational Work Experience ...............3-12
TTED 445: Development of a Unit Study Guide ........3
TTED 606: Industrial Supervision ............................3
TTED 607: Student Leadership Development in Vocational Education ...............................3
TTED 608: Components of Work-based Learning in Career and Technical Education .............3
TTED 610: Seminar (____) ..................................1-6
TTED 619: Planning Shop Layout for Vocational Education ...............................................3
TTED 694: Principles of Vocational Education ..........3
TTED 695: Using Technology as an Instructional Tool .....................................................2
TTED 697: Identification and Instruction of Students with Special Needs .............................3
or SPED 510: Overview of Special Education ............3

TTED 698: School Improvement Processes in Career and Technical Education ..................2
TTED 780: Classroom Management in Career and Technical Education ..........................3

TTED 201 Vocational Work Experience and TTED 401 Vocational Work Experience must both be taken for 12 hours each.

Professional Education and Support Requirements for Option II (14 hours)
PSYCH 263: Developmental Psychology ..................3
PSYCH 357: Educational Psychology ....................3
TTED 479: Techniques for Teaching Vocational-Technical Education ..........................3
TTED 483: Teaching Internship .............................5

Electives (22 hours)

Total (124 hours)

TTED 201, TTED 401, TTED 694, and TTED 697 are required of all majors.

@On December 18, 1989 the Faculty Senate adopted the General Education Committee's recommendation to grant an exception from the general education requirements as stated in this current catalog for the BSvTE degree candidates and permit these students to meet the requirements for graduation by meeting the general education requirements listed in the 1984-86 PSU Catalog, on page 31, with an additional 16 hours of general education electives. Students enrolled as on-campus students are required to meet the current University Catalog general education requirements. This policy was reaffirmed by the General Education Committee on October 15, 2004, and the Faculty Senate on November 22, 2004.

Credit for Work Experience
A maximum of twenty-four semester hours of work experience credit may be granted to qualified students working toward meeting requirements for the Bachelor of Science in Vocational-Technical Education degree.
Applicants are expected to meet the minimum work experience time for industrial, technical, or health occupation teachers established by the Division of Community Colleges and Vocational Education as specified in the Kansas State Teacher Certification Standards. Two years of experience above the learning level are required. One year of the experience is to be full-time, continuous work.

Applicants who hold a license or certificate will not be required to take the written or skill sections of the examination, but will take the classification test and oral interview. University credit is granted by enrolling in the work experience courses TTED 201 and TTED 401 Vocational Work Experience for a total of twenty-four semester hours. The following procedure should be followed by persons desiring to qualify for vocational, industrial or technical certification and to become eligible for university credit:

1. Make application for the Competency Examination with the Area Test Center Coordinator, Department of Technology and Workforce Learning, Pittsburg State University. Pittsburg, Kansas 66762.

2. Complete the examination form with documented record of work experience.

3. Schedule examinations and pay required fee.

4. Satisfactorily complete the following examinations with a grade of "C" or better.
   a. A written examination relating to information of the occupation.
   b. A performance examination in the skill area.

5. Persons who pass the examination may enroll in the courses TTED 201 and TTED 401 Vocational Work Experience. Persons who have completed a baccalaureate degree may not enroll for work experience credit.

Skill Competency Examinations are scheduled each year in April. Written competency tests are administered in April and, in some cases, on demand.

Minor in Human Resource Development
No matter what your major—psychology, business, communications, social services, education or political science—choosing a Human Resource Development minor is a great way to accentuate your education. Focusing on human resources can give you career skills vital to working with, developing and leading individuals and teams. In today’s business world, both public and private organizations are increasing their emphasis on employee education, learning and performance. Many professional and technical jobs now include the responsibilities of orienting new employees and cross-training others within their department.

The minor requires satisfactory completion of 21 semester hours of college work chosen from the following courses:

- TM 390: Trade and Job Analysis ........................................... 3
- EST 393: Introduction to Industrial Safety ....................... 3
- TM 520: Leadership in the Workplace ......................... 3
- HRD 575: Instructional Media in Human Resource Development ........................................... 3
- HRD 596: Introduction to Human Resource Development ........................................................................... 3
- TTED 606: Industrial Supervision ........................................ 3
- TM 653: Workforce Preparation ........................................ 3
- TM 679: Presentation Skills ................................................ 3

Minor in Industrial Management and Supervision
The industrial management and supervision minor is available to all majors interested in enhancing their degree with skills in supervision and performance improvement. Employees with these basic skills will have a much greater opportunity for advancement in their chosen career field. The minor is comprised of a minimum of 21 semester hours including:

- FIN 326: Business Finance .................................................. 3
- MGMKT 327: Organizational Theory and Behavior ............................................................... 3
- EST 393: Introduction to Industrial Safety ....................... 3
- TM 501: Work Measurement and Efficiency Methods ........................................................................... 3
- TM 520: Leadership in the Workplace ........................................... 3
Minor in Technology Education (Non-Teaching)
A minor in technology education provides an understanding of industrial materials and processes which could prove beneficial to business, management, communications, and other majors.

Courses for Technology Education (Non-Teaching) Minor (24 hours)
GT 300: Engineering Design and Problem Solving .......... 3
GT 320: Communication Systems in Technology .......... 3
GT 330: Engineering Materials and Processes .......... 3
GT 340: Power/Energy/Transportation Systems .......... 3
GT 350: Technology and Civilization .................. 3
GT 370: Construction Systems Technology ............. 3
GT 380: Manufacturing Enterprise .................. 3
TE 331: Overview of Technology .................. 3

Minor in Technological Literacy
The minor in Technological Literacy is available to all appropriate majors. The minor combines Educational Technology courses with Technology and Engineering Education courses to provide a comprehensive approach to the practical use and implementation of computer skills, design and problem solving skills and teaming concepts into real world practices and experiences.

Required Courses (20 hours)
EDTH 330: Technology for the Classroom ................. 3
TE 331: Overview of Technology .................. 3
TE 551: Integrated Technology for Educators ............ 3
EDTH 551: Instructional Technology for Educators ......... 3
EDTH 732: Topics in Educational Technology (___) ................................................................. 1-3
TE 753: Special Topics in Technology Education (___) ................................................................. 1-3

Minor in Wood Technology
The minor consists of a minimum of 24 semester hours in one technical field.

Wood Technology Minor
WT 182: Wood Science ........................................ 3
WT 185: Fundamentals of Wood Technology ............ 3
WT 226: CAD for Wood Product Development .......... 3
or GT 360: Computer Aided Drafting .................... 3
WT 282: Machine Woodworking ......................... 3
WT 301: Finishing ........................................... 3
WT 333: Tool Technology ................................ 3
WT 525: Cabinets and Fixtures .......................... 3-5

Select one course (3 hours) from the following
WT 383: Computer-Aided Manufacturing in Wood Technology ........................................ 3
WT 412: Overlay and Laminate Materials ................. 3
WT 585: Wood Production Estimating .................. 3

Master of Science Degree with a Major in Career and Technical Education
Emphases: Family and Consumer Sciences

College Teaching
Technology Education
Technical Teacher Education

The Departments of Technology and Workforce Learning and Family and Consumer Sciences offer an interdisciplinary Master of Science degree with a Major in Career and Technical Education that provides emphases in Family and Consumer Sciences, College Teaching, Technology Education, and Technical Teacher Education. The program provides a core of research, philosophy, and teacher preparation courses, and specialization courses in emphasis areas applicable to their specific career goals—teaching in public schools, colleges, business and industry, supervision, curriculum and instruction and/or research. Description of each emphasis area follows.

Family and Consumer Sciences Emphasis is for graduates with a degree in Family and Consumer
Sciences Teacher Education that want to complete a graduate degree. For Option I (Thesis), candidates complete 14-15 credit hours of core courses; 6 hours of thesis; and select 9-10 credit hours of advanced course work in the discipline for a total of 30 credit hours. Students pursuing Option III (Course Work), complete 14-15 credit hours of core courses; 6 hours of Option III courses; and select 11-12 credit hours of courses to total at least 32 credit hours.

**College Teaching Emphasis** is designed to prepare individuals interested in teaching career and technical courses (e.g., interior design, graphics, automotive, construction, etc.) at the community college or four-year university. However, it does not certify someone to teach these subjects as part of a non-vocational program at the secondary level, because it does not require teacher education certification as a condition of entrance. This emphasis requires a minimum total of 32 hours in graduate core courses; teacher preparation courses and practicum experiences in college teaching; and additional career and technical courses selected in consultation with the candidate’s advisor. Only Option III may be pursued.

**Technology Education Emphasis.** Candidates for this degree must have a Bachelor of Science degree with an undergraduate major in Technology Education, Industrial Arts or Industrial Education from an accredited institution. This emphasis provides the candidate with maximum flexibility in pursuing career goals related to Technology Education, such as certification, research, curriculum and instruction, administration, and technical specialization leading to vocational certification. For Option I (Thesis), candidates complete 14-15 credit hours of core courses; 6 hours of thesis; and select 9-10 credit hours of advanced course work in the discipline for a minimum total of 30 credit hours. Students pursuing Option III (Course Work) complete 14-15 credit hours of core courses; 6 hours of Option III courses; and select 11-12 credit hours of courses applicable to their specific career goals to total a minimum of 32 credit hours.

Students desiring to teach Technology Education in the public schools may choose to develop a program leading to Technology Education (General) certification and licensing to teach in middle schools and high schools (grades 6-12). This program may require additional education, psychology, and technical foundation courses, depending on undergraduate preparation.

**Technical Teacher Education Emphasis.** The graduate program is for candidates that have already completed Technical Teacher Education certification. It also provides certification opportunity for persons interested in qualifying for teaching in health occupations, business, family and consumer sciences, and other career and technical fields in vocationally approved high school and post-secondary programs—technical colleges, community colleges, universities, business and industry. Persons who hold the baccalaureate degree in allied health, agriculture, business, data processing, engineering, nursing, technology or related professional and technical areas may meet teacher certification and degree requirements by completing the degree. Candidates seeking certification are required to have completed two years of work experience in their profession, and may be required to take foundation courses that may exceed the minimum 32 credit hours associated with Option III.

The emphasis also provides a high degree of flexibility for certified vocational teachers pursuing goals related to Technical Teacher Education, such as: research, curriculum and instruction, as well as opportunities to gain additional technical expertise in a specialized area or broadening one’s scope of technical knowledge. For Option I (Theses), candidates complete 14-15 credit hours of core courses; 6 hours of thesis; and select 9-10 credit hours of advanced course work in the discipline for a minimum total of 30 credit hours. Students pursuing Option III (Course Work), complete 14-15 credit hours of core courses; 6 hours of Option III courses; and select 11-12 credit hours of courses to total at least 32 credit hours.

All graduate students pursuing the Master of Science with a Major in Career and Technical Education are required to take a comprehensive examination over the major departmental course work of study. The Master of Science with a Major in Career and Technical Education program offers a unique blend of professional and applied courses in the fields of business, technology, education, and related areas.
Education program consists of the following course work:

**Required Core Courses (14-15 hours)**
TTED 695: Using Technology as an Instructional Tool ................................................................. 2
or TE 756: Communication Systems Technology (___) ................................................................. 3
or TE 864: Topics in Communication Technology (___) ................................................................. 3
TTED 779: Instructional Methods in Technical Education ............................................................ 3
or TE 882: Instructional Strategies for Technology Education ....................................................... 3
TTED 887: Data Analysis and Interpretation in Technology ......................................................... 3
or TCHL 824: Educational Statistics I .............................................................................................. 3
TTED 891: Methods of Research ..................................................................................................... 3
or : .................................................................................................................................................. 3
TTED 894: History and Philosophy of Vocational Education ........................................................... 3
or TE 850: Contemporary Developments in Technology Education ................................................. 3

TCHL 824 or approved statistics course
TCHL 891 or approved research course

**Program Options (6 hours)**

**Option I (Thesis)**
- Thesis (6 hours)

**Option III (Course Work)**
TE 807: Problem Solving and Creative Thinking ...............3
or TE 806: Studies in Technology Education (___) ................................................................. 1-3
- Elective approved by advisor (3 hours)

TE 806 Studies in Technology Education (high interest current topics) and must be taken for three hours.

**Program Emphasis**
Select one of the following four emphases areas:

**Emphasis A. Family and Consumer Sciences (9-12 hours)**
TE 851: Integrated Technology for Educators ............3
FCS 740: Special Topics: (___) ..................................................... 1-4

**Select 3-6 credit hours from the following**
FCS 581: Aging and the Family ........................................3
FCS 771: Directed Readings in Family and Consumer Sciences .................................................. 1-3
FCS 780: Family Violence and Child Abuse .................3
FCS 792: Advanced Exploration of Issues in Youth and Adolescence ........................................ 3
FCS 730: Independent Study (___) ................................. 1-3
TTED 893: Student Assessment Development in Career and Technical Education ....................... 3

FCS 740 Special Topics must be taken for 3 hours.

**Emphasis B. College Teaching* (11-12 hours)**
TE 881: Orientation to College Teaching ...................... 3
TE 892: College Teaching Internship ......................... 3
TCHL 882: College Teaching Internship ....................... 3

**Select 5-6 credit hours from the following**
- Education-related or FCS courses as approved by FCS advisor, or
- Education or technical courses as approved by TE or TTED advisor

FCS 740 Special Topics must be taken for 3 hours.

**Emphasis C. Technology Education# (9-12 hours)**

**Select 9 credit hours from the following**
TE 750: Technology and Society ................................. 3
TE 753: Special Topics in Technology Education (___) ..................................................... 1-3
TE 806: Studies in Technology Education (___) ....... 1-3
Select 2-3 credit hours of electives as approved by TE advisor for Option III
FCS 740 Special Topics must be taken for 3 hours.

Emphasis D. Technical Teacher Education# (9-12 hours)

Select 9-10 credit hours from the following
TTED 698: School Improvement Processes in Career and Technical Education ......................................... 2
TTED 780: Classroom Management in Career and Technical Education .......................................................... 3
TTED 805: Special Problems (___) ........................................... 1-6
TTED 808: Work-based Learning in Career and Technical Education ......................................................... 3
TTED 810: Seminar (___) ........................................................... 1-6
TTED 845: Instructional System Design and Curriculum Development .......................................................... 3
TTED 893: Student Assessment Development in Career and Technical Education ........................................... 3
TTED 897: Teaching Special Vocational Students ................. 3

Select 2-3 credit hours of electives as approved by TE advisor for Option III
FCS 740 Special Topics must be taken for 3 hours.

Option I Total Minimum Required Hours
(30 hours)

Option III Total Minimum Required Hours
(32 hours)
* Option I is NOT available for Emphasis B. College Teaching; only Option III is available.

# Note: Candidates seeking certification for teaching Technology Education in the public schools (Emphasis C) or Vocational Certification (Emphasis D) will be required to take additional foundation courses in education, psychology, and/or technical courses beyond the 32 hours required for the MS in Career and Technical Education degree. Candidates' undergrad preparation varies; therefore an advisor should be consulted to determine additional requirements.

Master of Science Degree with a Major in Technology
The Master of Science degree with a major in technology provides advanced instruction in technical, scientific, managerial and supervisory areas for those working in technical and management positions in business and industry. Graduate faculty members for the program are from the Department of Engineering Technology, the Department of Graphics and Imaging Technologies, and the Department of Technology and Workforce Learning.

Candidates for this degree must meet the requirements for Option I or Option II as described Graduate Degrees and Options of this catalog. The degree requires completion of 9 to 12 credit hours of emphasis area/elective courses (depending on Option I or Option II) and 21 credit hours of core courses. Other aspects of the curriculum are determined by individual needs in consultation with the student’s advisor. Areas of interest in which the student may gain additional strength include product design and development, manufacturing and production, sales and distribution, maintenance and service, or a technical area within the curricula of the Department of Engineering Technology, the Department of Graphics and Imaging Technologies, and/or the Department of Technology and Workforce Learning.

Admission to the graduate program requires an undergraduate major in technology or equivalent. Students with degrees in business, industrial education, the sciences, engineering, and other areas are considered for admission. However, transcripts are evaluated and certain foundation courses may be
required to be completed as prerequisites to the core courses.

Option I Thesis (30 hours)

Foundation Courses/Requirements
ECON 200: Introduction to Microeconomics .................. 3
ENGL 301: Technical/Professional Writing .................. 3

- Must demonstrate computer proficiency

The number of credits required depends upon the background of each individual student. Each advisor will assign foundation courses if these courses or their equivalent were not taken as part of an undergraduate curriculum.

Core Courses

Required (9 hours)
GRT 801: Interdisciplinary Perspectives in Technology ............................................. 3
ETECH 831: Value Engineering ............................................. 3
GRT 891: Methods of Research ............................................. 3

Optional: Select six hours from the following
ETECH 804: Quality: Management and Control ........... 3
GRT 888: Product Design and Management ........... 3
ETECH 899: Quantitative Decision Making in Industry ......................................................... 3

Thesis (6 hours)
GRT 890: Research and Thesis ................................. 3-6

Emphasis/Electives Areas (12 hours)

- See advisor for Emphasis/Electives Area course listings

Option II Non-Thesis (33 hours)

Foundation Courses/Requirements
ECON 200: Introduction to Microeconomics .................. 3
ENGL 301: Technical/Professional Writing .................. 3

- Must demonstrate computer proficiency

The number of credits required depends upon the background of each individual student. Each advisor will assign foundation courses if these courses or their equivalent were not taken as part of an undergraduate curriculum.

Core Courses
GRT 801: Interdisciplinary Perspectives in Technology ............................................. 3
ETECH 804: Quality: Management and Control ........... 3
ETECH 831: Value Engineering ............................................. 3
GRT 888: Product Design and Management ........... 3
GRT 891: Methods of Research ............................................. 3
GRT 894: Research Application in Technology ........... 3
ETECH 899: Quantitative Decision Making in Industry ......................................................... 3

Emphasis/Electives Areas (12 hours)

- See advisor for Emphasis/Electives Area course listings

Master of Science Degree with a Major in Human Resource Development
The Department of Technology and Workforce Learning offers courses leading to the Master of Science degree with a major in Human Resource Development. The program is nationally accredited by the Human Resource Development Accreditation Association. The curriculum is planned to provide graduate-level preparation for individuals involved in employee training, education and development, performance improvement, and organizational development in business, industry and private or public service organizations. Candidates must have an undergraduate degree in human resources, education, business, or a
related area. HRD 596 Introduction to Human Resource Development is a required prerequisite for admission to the program.

Candidates for the degree must meet requirements for either Option I, Option II or Option III as found on Graduate Degrees and Options of this catalog. A minimum of 18 semester hours must be completed in 800-level courses and 29 hours in courses numbered from 700-899. A maximum of six semester hours may be approved in 500 and 600-level courses. Candidates under Options II and III are required to satisfactorily pass comprehensive examinations. Candidates under Option I must satisfactorily defend a thesis.

Emphasis 1 is designed for individuals interested in HRD management or consulting. Emphasis 2 is for individuals interested in HRD program development and delivery. The candidate’s program of study will be developed based upon their education and work experience as well as their present and future career goals.

Core Courses (11 hours)
HRD 850: Graduate Study in Human Resource Development ................................................................. 1
HRD 851: Career Planning in Human Resource Development ................................................................. 1
HRD 852: Organizational Development and Change ...................................................................... 3
HRD 853: Workforce Development ......................................................................................... 3
HRD 899: Planning and Implementing a Human Resource Development Program ....................... 3

Emphasis Courses (12 hours)

Emphasis 1: HRD Management and Consulting
HRD 706: Personnel Development in Business and Industry ......................................................... 3
HRD 745: Designing HRD Interventions ....................... 3
HRD 804: Leadership Techniques and Procedures ........... 3
HRD 879: Professional Presentations ............................... 3

Emphasis 2: HRD Program Development and Delivery
HRD 745: Designing HRD Interventions .................. 3
HRD 775: Instructional Technology .......................... 3
HRD 785: Video Lesson Development ......................... 3
HRD 790: Occupational Analysis ............................ 3

Research Courses* (6-12 hours)

Option I- Thesis
TTED 887: Data Analysis and Interpretation in Technology ................................................................. 3
HRD 890: Research and Thesis ...................................... 3-6
TTED 891: Methods of Research .................................................. 3
or HRD 891: Methods of Research .................................................. 3

TTED 887 Data Analysis and Interpretation in Technology is recommended for Option I.

Option II- Applied Research
HRD 805: Special Problems (__) ......................... 1-3
or HRD 883: Internship in Human Resource Development ................................................................. 3
TTED 891: Methods of Research .................................................. 3
or HRD 891: Methods of Research .................................................. 3

Option III- Course Work

• Research elective (3 hours)

TTED 891: Methods of Research .................................................. 3
or HRD 891: Methods of Research .................................................. 3

* Methods of Research required for all options

Career Based Electives (0-9 hours)

Minimum Total Hours (Option I and II) (35 hours)
Minimum Total Hours (Option III) (38 hours)
Specialist in Education Degree with a Major in Workforce Development and Education

The Specialist in Education degree (Ed.S.) with a major in workforce development and education is designed to provide graduate level preparation for persons interested in advanced study and research in professions such as human resource development, industrial education, technology education, and technical teacher education. Students will specialize in an area such as technology management, vocational administration, or in such HRD fields as management, consulting, facilitation or instructional design and technology.

The Specialist in Education degree may be used to develop specialization in an area to support a following doctoral program, or it may be considered as a terminal professional degree. Students who plan to pursue a doctoral program should check with the university where they plan to attend as to their transfer policy. Some universities will not transfer Ed.S. credit for a doctoral degree as they consider it a terminal degree.

The Ed.S. program in the College of Technology requires at least one year of specialized graduate study beyond the Master of Science degree. The program is developed on the basis of the student’s academic background and professional interests. Coursework selected should support this specialization. Independent study is often part of the program as the Ed.S. candidate is expected to take responsibility for their professional development.

Research is an integral part of this degree. The Ed.S. degree may be completed under Option I: Thesis, or Option II: Problem. Option I students will defend their thesis. Option II students will take comprehensive examinations over their course of study.

Course and Credit Hour Requirements

The Specialist in Education degree requires a minimum of 30 semester hours of graduate study of which 21 or more semester hours shall be earned in courses open only to graduate students (800-900 numbers), with at least nine hours in 900-level courses. No 500-600 level courses will be applicable to the Ed.S. program.

Option I: Thesis

Option I requires the completion of from four to six hours in 990 Special Research Project, in which students must conduct and report in written form the results of field studies or research project in their specialization. An advisory committee consisting of three members, with one member from outside the college, will be appointed to evaluate the final research project. Other coursework should help support this research.

Option II: Problem

Option II places less emphasis upon formal research and correspondingly more emphasis upon activities related to the professional objectives of the student. Option II does require a three-hour course in some aspect of research. The nature of the research study will be determined by the department and advisor.

Students interested in pursuing the Ed.S. degree should review the pages related to the Specialist in Education degree Graduate Degrees and Options in the PSU University Catalog for more detailed information.

Cooperative Doctoral Programs

The Department of Technology and Workforce Learning is participating in a cooperative doctoral program with the University of Arkansas. Persons admitted to the program may complete approximately one year of advanced study at Pittsburg State University toward meeting requirements for the doctoral degree offered by the university.
**DESCRIPTION OF COURSES**

**Accounting**

ACCTG 201. Financial Accounting. 3 hours. Emphasizes the basic economic concepts underlying general-purpose external financial statements and the uses of this information by producers and consumers.

ACCTG 202. Managerial Accounting. 3 hours. A survey of the tools for interpreting, analyzing, and understanding accounting data used in setting plans and objectives, in controlling operations, and in making management decisions. Prerequisite: ACCTG 201 Financial Accounting.

ACCTG 305. Construction Accounting. 3 hours. An introduction to the theory and practice of accounting concepts unique to the construction industry. Emphasizes accounting data used in construction management including automated systems for construction contractors. Prerequisite: ACCTG 201 Financial Accounting and junior standing.

ACCTG 315. Intermediate Managerial Accounting. 3 hours. A study of the concepts and methods to prepare and report cost information for planning and control in manufacturing and service industries. Topics include job order and process costing, standard costing, activity based costing, cost allocation, and budgeting. Prerequisite: ACCTG 202 Managerial Accounting and junior standing.

ACCTG 318. Intermediate Financial Accounting I. 3 hours. A study of the three major financial statements, the conceptual framework underlying financial reporting, and generally accepted accounting principles (GAAP) for assets and revenue recognition. Emphasis is placed on the importance of professional judgment and ethics in the financial reporting process. Prerequisite: ACCTG 201 Financial Accounting and junior standing.


ACCTG 416. Business Taxation. 3 hours. An introduction to the theory and practice of taxation for individuals in relation to businesses and taxation of business entities related to gross income, deductions and credits. Sole proprietorships, partnerships, and corporations will be covered. Prerequisite: ACCTG 201 Financial Accounting and junior standing. May be taken for honors.

ACCTG 420. Information Technology and Accounting Systems. 3 hours. A study of accounting systems with emphasis on emerging information technologies. Focus will be placed on analysis and modeling of databases, designing controls to mitigate business risks, and understanding the dynamic dimensions of accounting data. Prerequisite: CIS 130 Computer Information Systems and ACCTG 201 Financial Accounting and junior standing. May be taken for honors.

ACCTG 422. Internal Auditing. 3 hours. Process of obtaining and evaluating internal audit evidence and communicating audit results. Includes methods to assess organizational risks, controls and performance, professional auditing standards and auditors' ethical responsibilities. Prerequisites: ACCTG 201 Financial Accounting and junior standing; or permission of instructor. May be taken for honors.

ACCTG 520. Advanced Managerial Accounting. 3 hours. A study of control systems and decision making within manufacturing and service organizations. Topics include cost systems, capital budgeting, decentralized operations, and multinational considerations. Prerequisite: ACCTG 315 Intermediate Managerial Accounting or equivalent and junior standing. May be taken for honors.

ACCTG 522. Information Systems Auditing and Controls. 3 hours. An in-depth study of auditing computerized information systems. Coverage includes auditors' assessments of risks and controls in an electronic data processing environment and computer-assisted audit techniques. Prerequisite: ACCTG 422 Internal Auditing and junior standing. May be taken for honors.

ACCTG 585. Accounting Law. 3 hours. An in-depth study of legal issues of primary interest to professional accountants. Prerequisite: MGMT 444 Legal and Social Environment of Business and junior standing.

ACCTG 600. Topics in Accounting (3-3). 1-3 hours. Study of specific advanced topics in accounting. A specific subject area will be identified each time the course is offered. May be repeated if topic is different. Prerequisite: ACCTG 422 Internal Auditing and junior standing.

ACCTG 611. Advanced Taxation. 3 hours. An in-depth study of income tax laws related to C corporations, S corporations, and partnerships. An introduction to transfer taxes involved with gifts and estates and income taxes on estates, trusts, and tax-exempt organizations. Prerequisite: ACCTG 416 Business Taxation and junior standing. May be taken for honors.

ACCTG 614. Internship in Accounting. 3-6 hours. Work experience in public, private, governmental, or not-for-profit accounting. The work experience must be approved by the internship committee. May be repeated for a maximum of six hours. Prerequisite: permission of instructor required and junior standing.


ACCTG 625. Fraud Examination. 3 hours. Fraud examination, also called Forensic Accounting, focuses on the prevention, detection, investigation, and resolution of fraud and white collar crime. The course will utilize a combination of lectures, videos, guest speakers, and case studies. Prerequisite: ACCTG 201 Financial Accounting and senior standing; or permission of instructor. May be taken for honors.

ACCTG 805. Internship in Accounting. 1-3 hours. Work experience in public, private, governmental, or not-for-profit accounting. The work experience must be approved by the internship committee. Prerequisite: Permission of instructor required.

ACCTG 811. Seminar in Accounting (3-3). 1-3 hours. Directed readings, research and discussion of selected areas of accounting. Scope, depth, and area of concentration to be arranged. May be repeated for a maximum of 6 hours if subject matter is different. Prerequisite: 12 hours of accounting or permission of instructor.

ACCTG 812. Tax Research. 3 hours. The tax research process and the sources of tax authorities are focused upon to provide the tools to answer specific federal tax questions. Prerequisite: ACCTG 416 Business Taxation or permission of instructor.

ACCTG 813. Financial Statement Analysis. 3 hours. A case-study course that focuses on using corporate financial statements to make business and investment decisions. Emphasis is on practical application and special attention is given to cultivating critical thinking skills, analytical skills, and the ability to effectively communicate analyses to interested parties. Prerequisite: ACCTG 318 Intermediate Financial Accounting I or permission of instructor.

ACCTG 814. Management Control Systems. 3 hours. Focuses on the design, evaluation, and effective implementation of management control systems using a case-based format. Prerequisite: Six hours of accounting.

ACCTG 815. Financial Statement Auditing. 3 hours. An applied study of the financial statement auditing process. Includes assessment of financial accounting system risks and controls, professional auditing standards, auditors' ethical and legal responsibilities, and other assurance services provided by public accountants. Prerequisite: ACCTG 422 Internal Auditing or equivalent or permission of instructor.

ACCTG 819. Cost Management. 3 hours. Managing costs in the manufacturing and service industries. Topics include activity based costing, computer integrated manufacturing, flexible manufacturing systems, just-in-time, cost planning and control, quality costs, performance management, cost management, and other contemporary issues.

**Art**

ART 100. Art Foundations I: 2D Visual Thinking. 3 hours. Elements and principles of two-dimensional design. Emphasis on solutions to practical and aesthetic composition problems of visual communication. Lecture, critique, and supervised studio practice with a variety of media. Fall only.

ART 150. Art Practices I: Health, Safety and Sustainability. 1 hour. An introduction to health, safety and sustainability issues for the visual artist. Required in first semester of study as art major.

ART 155. Printmaking and Paper Arts. 3 hours. Lectures and studio experiences dealing with the techniques of printmaking and the paper arts such as: etching/intaglio, solar etching, reductive woodcuts, papermaking and bookmaking. Fall only.

ART 178. Introduction to the Visual Arts. 3 hours. Principles of art from a non-chronological, multicultural perspective. Emphasis on differing roles the artist plays in diverse societies, on parallels across the arts, and on the analysis of art objects as items of material culture.

ART 188. The Designed World. 3 hours. Design of art objects as related to problem solving processes and creative thinking. Art ideas, techniques, and media through studio experiences. Media will vary. For Non-Art Majors.

ART 200. Art Foundations II: 3D Visual Thinking. 3 hours. Elements and principles of three-dimensional design. Emphasis on form, combinations of materials, and apt solutions to both fine and applied visual design problems. Lecture, critique, and supervised studio practice. Prerequisite: ART 100 Art Foundations I: 2D Visual Thinking. Spring only.

ART 205. Commercial Art I. 3 hours. Introduction to layout and design exploring illustration as a means of communicating ideas. Emphasis on the variety of stages required to produce artwork viable for the professional market place. Various traditional and nontraditional materials and techniques. Prerequisites: ART 100 Art Foundations I: 2D Visual Thinking and ART 236 Drawing II or concurrent enrollment).
ART 217. Crafts I. 3 hours. An exploration of various materials such as metals, fibers, paper and dyes, with studies of their use in contemporary crafts and their relationship to the fine arts. Emphasis on design and experimental approaches.

ART 220. Art of Photography I. 3 hours. Introduction to photographic foundations covering theory, history, and practice. Studio course concerned with visual phenomena and the communication of ideas using the exploration of basic tools, techniques and aesthetics of photography. Course emphasis is placed on the creative use of traditional and digital camera controls, exposure, and digital imaging software.

ART 222. Jewelry Design I. 3 hours. Basic processes and design problems in jewelry and metalsmithing: forging, constructing and other techniques.

ART 233. Drawing I. 3 hours. Studio experiences in processes, media, and techniques used in the art of drawing. Gesture, shape, value, line, color, composition, and spatial illusion are explored as a means toward developing skill and individual expression.

ART 236. Drawing II. 3 hours. ART 236 Drawing II. 3 hours. Continued study of process, media, and technique toward drawing skill and expression. Spatial illusion and perspective systems will be stressed. Prerequisite: ART 233 Drawing I.

ART 244. Ceramics I. 3 hours. Concepts, methods, techniques and studio experiences in hand building and throwing ceramic forms on the potter’s wheel. Introduction to sculptural and functional uses of clay. Includes lectures on clay, glazes, loading and firing kilns.

ART 250. Art Foundations III: Color Theory and Application. 3 hours. Continued study of fine and applied design concepts. Lectures, research, and studio problems related to major theories with emphasis on color systems. Prerequisites: ART 100 Art Foundations I: 2D Visual Thinking and ART 233 Drawing I. Fall only.

ART 266. Sculpture I. 3 hours. The elements of sculpture, including various media, methods, techniques, processes, composition, and evaluation. Spring only.

ART 277. Painting I. 3 hours. Studio experiences and explorations of painting mediums, processes, and techniques.

ART 288. Western Art History I. 3 hours. The history of Western art from Paleolithic times through the late Gothic. Contributions of various cultures to Western civilization. Emphasis on social context and parallels between visual arts, music, literature, and the history of ideas. Writing to learn course. Fall only.

ART 289. Western Art History II. 3 hours. The history of Western art from the Italian Renaissance through the present day. Emphasis on social context and parallels between visual arts, music, literature, and the history of ideas. Writing to learn course. Spring only.

ART 305. Commercial Art II. 3 hours. Introduction to different avenues of commercial art. Emphasis on creative imagery showing a variety of visual ideas that satisfy professional objectives, idea development, originality, aesthetics and technical proficiency. Prerequisites: ART 205 Commercial Art I and ART 250 Art Foundations III: Color Theory and Application. May be taken for honors.

ART 311. Art Education. 3 hours. Introductory survey of concepts and theories relevant to understanding visual art.

ART 320. Art of Photography II. 3 hours. Theory, history and practice of photography relate to the contemporary artist. Emphasis is placed on understanding the physical aesthetic principles of light through the use of artificial lighting, darkroom practices and extending students’ exploration of the use of the photographic medium for personal expression. May be taken for honors.

ART 322. Jewelry Design II. 3 hours. A continued exploration of jewelry design, techniques and processes. Further study of historical and contemporary jewelry concepts and their relationship to society. May be taken for honors. Prerequisite: ART 222 Jewelry Design I.

ART 325. Art Practices II: Presentation of Artist Works. 1 hours. An introduction to the fundamental skills necessary to professionally present an artistic body of work in an exhibition format. Prerequisite: ART 150 Art Practices I: Health, Safety and Sustainability.

ART 333. Drawing III. 3 hours. In depth exploration of drawing media, form, and content. Visual problems emphasizing unique and expressive solutions. Prerequisite: ART 236 Drawing II. May be taken for honors. May be repeated for a maximum of six hours.

ART 344. Ceramics II. 3 hours. Continued exploration of clay materials and processes. More complex problems with hand built and thrown forms. Prerequisite: ART 244 Ceramics I. May be taken for honors.

ART 350. Art Practices III: Studio Critique I (Sophomore Level). 1 hours. Introductory seminar/critique course that assists students in developing a personal artistic direction while receiving guidance and criticism from multiple viewpoints and contexts. Prerequisite: ART 325 Art Practices II: Presentation of Artist Works.

ART 377. Painting II. 3 hours. Studio experience in painting with emphasis on color and compositional problems. Use of various painting media. Prerequisites: ART 277 Painting I. May be taken for honors.

ART 379. Art Education: Elementary. 3 hours. Examination of the fundamental theories, practices, and purposes of art education in pre-kindergarten and elementary education. Studies to understand art education methods, to develop awareness of the creative process and to design appropriate curriculum for PK-8 students. May be taken for honors. Fall only.

ART 401. Independent Studies (____). 1-3 hours. Directed readings and/or special investigations as determined in conference between student and faculty member. Project proposal must be submitted within three weeks after beginning of semester. May be repeated. Permission of department chairperson is required.

ART 405. Electronic Art Studio I. 3 hours. Advanced drawing, design, and layout for visual professions. Emphasis on original aesthetic imagery and ideas. Use of both traditional and various electronic digital media. Prerequisites: ART 305 Commercial Art II. May be taken for honors.

ART 406. Electronic Art Studio II. 3 hours. Continued study of the skills presented in ART 405 Electronic Art Studio I. Prerequisite: ART 405 Electronic Art Studio I. May be taken for honors.

ART 412. Senior Art Seminar. 3 hours. Professional business practices for the visual artist. Strategies for interviewing, portfolio preparation and advanced development of personal imagery in preparation for Senior Exhibit. Emphasis on fine and commercial art professions. Prerequisite: Successful completion of 55 credit hours of art coursework. Permission of instructor required.

ART 420. Art of Photography III. 3 hours. This is an advanced photography course that provides an introduction to alternative photographic processes with an emphasis on hand-coated, non-silver emulsions. Emphasis is placed on the theory, history and practice of photography as they relate to the contemporary artist. May be taken for honors.

ART 422. Jewelry Design III. 3 hours. Design and creation of contemporary jewelry. Emphasis on individual expressivity. Prerequisites: ART 322 Jewelry Design II. May be taken for honors.

ART 423. Jewelry Design IV. 3 hours. Continued development of skills in jewelry. Prerequisite: ART 422 Jewelry III. May be taken for honors.

ART 425. Art of Photography IV. 3 hours. Concentration on development of personal imagery. Exploration of various techniques to improve photographic technical skill and content within the framework of in-depth extended photographic projects. May be taken for honors.

ART 433. Life Drawing. 3 hours. Studio experiences in life drawing processes and techniques. Gesture, proportion, foreshortening, diagramming, and anatomy. May be taken for honors. Spring only. May be repeated for a maximum of six hours.

ART 434. Life Drawing II. 3 hours. Continuation of material covered in ART 433 Life Drawing. Prerequisite: ART 433 Life Drawing.

ART 441. Art Education: Theory and Practice. 3 hours. An overview of the historical and philosophical approaches to art education, including a comprehensive study of current pedagogical theories, research and contemporary issues related to teaching art in PK-12. For art education majors only. Prerequisite: ART 379 Art Education: Elementary. Spring only.

ART 444. Ceramics III. 3 hours. Design and construction of functional and sculptural clay forms. Emphasis on individual expressivity. Prerequisite: ART 344 Ceramics II. May be taken for honors.

ART 445. Ceramics IV. 3 hours. Continued development of skills in ceramics. Prerequisite: ART 444 Ceramics III. May be taken for honors.

ART 450. Art Practices IV: Portfolio Creation. 1 hours. An introduction to the fundamental skills necessary to professionally present an artistic body of work focusing on research, evaluation and writing. Prerequisite: ART 350 Art Practices III: Studio Critique I (Sophomore Level).

ART 470. Topics in Art (____). 1-3 hours. Intensive study of selected topics in art. A specific subtitle will be listed in the schedule of classes. May be repeated when topic is different. Lecture and/or studio-group study only.

ART 477. Painting III. 3 hours. Studio experience directed toward giving greater scope to compositional problems and the development of a personal imagery. Earlier achievements are reconsidered with the exception that advanced painting problems will be based on new experiences. Improved technical skills are balanced with increased freedom of expression. Prerequisite: ART 377 Painting II. May be taken for honors.

ART 478. Painting IV. 3 hours. Continued development of skills in painting with an emphasis on personal expression and growth. Prerequisite: ART 477 Painting III. May be taken for honors.
COURSE DESCRIPTIONS

ART 479. Art Education: Secondary. 3 hours. Examination of the fundamental theories, practices, and purposes of art education in secondary schools. Development of curriculum, discipline plans, safety policies, classroom design and management, with accompanying field observations and research. Preparation for employment, including teaching portfolio development, job search and interview techniques. To be taken before the professional semester. Prerequisite: ART 379 Art Education: Elementary (with a grade of B or better), Admission to Teacher Education and PSYCH 357 Educational Psychology. Fall only.

ART 490. Senior Exhibit. 1 hours. Materials, techniques and procedures in presenting student’s senior exhibit. Framing, matting, hanging and lighting, poster, brochures and other means of advertisement student’s senior exhibit. For art majors only. Prerequisite: Senior standing. Permission of instructor required.

ART 505. Commercial Art III. 3 hours. Advanced development of technique, style and personal resolutions of illustration problems. The business of researching, packaging and pinpointing potential markets and the development of a body of work for that market. Prerequisites: ART 405 Electronic Art Studio I. May be taken for honors.


ART 523. Jewelry Design VI. 3 hours. Continued development of jewelry skills in a studio setting. Prerequisite: ART 522 Jewelry Design V. May be taken for honors.

ART 544. Ceramics V. 3 hours. Advanced study in the design and construction of functional and sculptural forms in clay. Students will be encouraged to develop their own concepts. Includes study of the practical and theoretical aspects of clay, glazes, and firing of kilns. Prerequisite: ART 445 Ceramics IV. May be taken for honors.

ART 545. Ceramics VI. 3 hours. Continued development of skills in ceramics in a studio setting. Prerequisite: ART 544 Ceramics V. May be taken for honors.

ART 550. Art Practices V: Studio Critique II (Junior Level). 1 hours. Intermediate seminar/critique course that assists students in developing a sustained body of work while receiving guidance and criticism from multiple viewpoints and contexts. Prerequisite: ART 450 Art Practices IV: Portfolio Creation.

ART 577. Painting V. 3 hours. Students undertake independently selected painting problems that assist them in approaching maturity. Prerequisite: ART 478 Painting IV. May be taken for honors.

ART 578. Painting VI. 3 hours. Continued development of painting skills in a studio environment. Prerequisite: ART 577 Painting V. May be taken for honors.

ART 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow-up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

ART 605. Commercial Art IV. 3 hours. This course offers advanced commercial art students an opportunity to continue building their portfolio, while learning art practices specific to commercial art areas. Students echo the professional marketplace, and are encouraged to have an active role in establishing a publication history. Prerequisites: ART 505 Commercial Art III and ART 405 Electronic Art Studio I (or concurrent enrollment). May be taken for honors.

ART 622. Jewelry Design VII. 3 hours. Studio experience in jewelry design. Prerequisite: ART 523 Jewelry Design VI. May be taken for honors.

ART 623. Jewelry Design VIII. 3 hours. Continued development of jewelry skills in a studio setting. Prerequisite: ART 622 Jewelry Design VII. May be taken for honors.

ART 644. Ceramics VII. 3 hours. Studio experience in ceramics. Prerequisite: ART 545 Ceramics VI. May be taken for honors.

ART 645. Ceramics VIII. 3 hours. Continued development of skills in ceramics in a studio setting. Prerequisite: ART 644 Ceramics VII. May be taken for honors.

ART 650. Art Practices VI: Studio Critique III (Senior Level). 1 hours. Capstone seminar/critique course that assists students in developing a sustained body of work while receiving guidance and criticism from multiple viewpoints and context in preparation for a career in studio art. Prerequisite: ART 550 Art Practices V: Studio Critique II (Junior Level).

ART 677. Painting VII. 3 hours. Studio experience in painting. Prerequisite: ART 578 Painting VI. May be taken for honors.

ART 679. Painting VIII. 3 hours. Continued development of painting skills in a studio setting. Prerequisite: ART 677 Painting VII. May be taken for honors.

ART 688. History of Modern Art. 3 hours. European and American art from 1890 through post-WWII abstraction. Emphasis will be placed on the relationships between artistic production and the social fabric of the period, torn by wars, revolution, totalitarianism and worldwide depression, followed by the triumph of consumer society in the cold war era. May be taken for honors. Fall only.

ART 689. Contemporary Issues in Art. 3 hours. International art from 1960 to the present, with an emphasis on recent critical and theoretical issues in Post-Modern art and architecture. May be taken for honors. Spring only.

ART 701. Independent Studies I. 1-3 hours. Directed readings and/or special investigations as determined in conference between student and faculty member. Project proposal must be submitted within three weeks after beginning of semester. May be repeated. Permission of department chairperson is required.

ART 722. Jewelry Design. 3 hours. Studio experience in jewelry design and metalsmithing. May be repeated for a total of 9 hours. May be taken for honors.

ART 744. Ceramics. 3 hours. Studio experience in ceramics. May be repeated for a total of 9 hours. May be taken for honors.

ART 770. Topics in Art II. 1-3 hours. Intensive study of selected topics in art. A specific subtitle will be listed in the schedule of classes. May be repeated when topic is different. Lecture and/or studio-group study only.

ART 777. Painting. 3 hours. Studio experience in painting. May be repeated for a total of 9 hours. May be taken for honors.

ART 801. Independent Studies II. 1-3 hours. Directed readings and/or special investigations as determined in conference between student and faculty member. Project proposal must be submitted within three weeks after beginning of semester. May be repeated. Permission of department chairperson is required.

ART 821. Readings in Art Education. 3 hours. Directed readings and explorations over histories, philosophies, and current trends of art education. Permission of instructor required. Prerequisite: Admission into Department of Art graduate program. Spring only.

ART 822. Jewelry Design. 3 hours. Studio experience in jewelry design and metalsmithing. May be repeated for a total of 12 hours.

ART 844. Ceramics. 3 hours. Studio experience in ceramics. May be repeated for a total of 12 hours.

ART 870. Topics in Art III. 1-3 hours. Intensive study of selected topics in art. A specific subtitle will be listed in the schedule of classes. May be repeated when topic is different. Lecture and/or studio-group study only.

ART 877. Painting. 3 hours. Studio experience in painting. May be repeated for a total of 12 hours.


ART 882. Research Seminar: Professional Practices II. 1 hours. Professional business applications for the visual artist. Topics include: record keeping, advertisement, career paths, grant writing and others. Prerequisite: Admission to the Department of Art graduate program.

ART 892. Graduate Exhibit. 1 hours. Organization and presentation of a culminating body of artwork developed during graduate study. Must be taken concurrently with ART 886 Advanced Research Seminar in Art during last semester of graduate study. Permission of instructor required.

ART 893. Introductory Research Seminar in Art. 1 hours. Directed introduction to theories and research in contemporary studio art. Prerequisite: Admission to Department of Art graduate program.

ART 895. Research Seminar: Contemporary Art. 3 hours. Reading and research centering on a specific movement or topic in recent art. Prerequisite: Admitted to Department of Art graduate program.

ART 896. Advanced Research Seminar in Art. 1 hours. Intensive investigation into personal theory and direction in studio art. Must be taken concurrently with ART 892 Graduate Exhibit during last semester of graduate study.

Automotive Service Technology

AST 101. Engine Repair. 3 hours. Foreign and domestic power plants, accessory units and reconditioning procedures. Emphasis is on operating principles of four-cycle engines and their repair. Corequisite: Concurrent enrollment in AST 122 Auto Mechanics General Laboratory I.

AST 102. Brakes. 3 hours. Foreign and domestic brake systems. Includes hydraulic theory, disc and drum systems, parking brakes, power assist units, and anti-lock braking systems. Corequisite: Concurrent enrollment in AST 122 Auto Mechanics General Laboratory I.

AST 122. Auto Mechanics General Laboratory I. 5 hours. (15 hour laboratory). Power plants, accessory units and reconditioning procedures. Practical work on electrical, fuel, cooling, and lubrication systems; brake reconditioning on modern passenger cars. Corequisite: Concurrent enrollment in AST 101 Engine Repair and AST 102 Brakes.
AST 150. Engine Performance I. 3 hours. Engine performance principles including ignition systems, carburetion, and automotive performance testing and servicing equipment. Corequisite: Concurrent enrollment in AST 152 Auto Mechanics General Laboratory II.

AST 151. Electrical Systems I. 3 hours. Automotive electrical principles including basic electrical theory, storage batteries, starting motors, alternators, and automotive electrical testing and servicing equipment. Corequisite: Concurrent enrollment in AST 150 Engine Performance I and AST 151 Electrical Systems I.

AST 152. Auto Mechanics General Laboratory II. 5 hours. (15 hour laboratory). Electrical system, ignition, and carburetor diagnosis. Practical work on battery, starter, charging, ignition, and carburetor systems. Corequisite: Concurrent enrollment in AST 150 Engine Performance I and AST 151 Electrical Systems I.

AST 160. Automatic Transmissions. 3 hours. Theory, operation, and service of automatic transmissions. Emphasis on diagnosis, installation, and servicing of component parts. Laboratory practice on automatic transmission and accessory systems.

AST 163. Manual Drive Train and Transaxle. 3 hours. Theory, operation and service of foreign and domestic automotive drive trains, including clutches, manual transmissions, overdrives, and various types of manual transaxles. Prerequisite: Completion of first year curriculum.


AST 255. Automotive Heating and Air Conditioning. 3 hours. Basic theory, component parts and servicing of automotive heating and air conditioning systems. Corequisite: Concurrent enrollment in AST 257 Auto Mechanics General Laboratory IV.

AST 256. Suspension and Steering. 3 hours. Theory, operation, repair and service of automotive chassis and steering systems, including alignment angles, front suspension, struts, rear suspension, unibody structure, and wheel assemblies. Corequisite: Concurrent enrollment in AST 257 Auto Mechanics General Laboratory IV.

AST 257. Auto Mechanics General Laboratory IV. 5 hours. (13 hour laboratory). Heating, air conditioning, suspension and steering diagnosis. Practical work on air conditioning repair, suspension service and four-wheel alignment. Corequisite: Concurrent enrollment in AST 255 Automotive Heating and Air Conditioning and AST 256 Suspension and Steering.

AST 260. Engine Performance II. 3 hours. Theory, diagnosis, service and repair of automotive emission and electronic fuel injection systems. Prerequisite: AST 150 Engine Performance I. Corequisite: Concurrent enrollment in AST 252 Auto Mechanics General Laboratory III.

AST 264. Current Topics in Automotive Service Technology (____). 1-3 hours. Directed readings and/or individualized study related to automotive service technology. May be repeated if content is different. May be taken as Pass-Fail. Prerequisite: Permission of instructor.

AST 299. Automotive Service Coop Internship. 6 hours. Planned work experience in an automotive dealership or service center working with seasoned technicians; expected to work in all facets of automotive repair, but with emphasis in suspension, steering and alignment as well as heating and air conditioning systems. Student and dealership representative submits reports and evaluations to internship coordinator. Offered on a Pass/Fail basis only. Prerequisite: Successful completion of 30 credit hours of Automotive Service course work.

**Automotive Technology**

AT 100. Orientation to Automotive Technology. 1 hour. Orientation issues for automotive technology majors. Emphasis is placed on program overview, industry overview, student organizations, basic service tools, laboratory environmental and safety issues.

AT 112. Engine Analysis. 3 hours. Course provides practical and experimental laboratory experience in automotive engine technology in addition to related technical information. Engine theory of operation and service is studied in detail. Engine overhaul techniques and procedures are discussed and practiced.

AT 210. Brake Systems. 3 hours. Theory and diagnosis of brake systems. Includes the following: basic brake systems, hydraulic theory, disc and drum brakes, parking brakes, and power assist units. Includes the theory and system diagnostics on anti-lock brake systems, ABS operation and traction control. Examples of ABS systems are: Bendix, Delphi, and Bosch.

AT 211. Steering, Alignment and Suspension. 3 hours. Study the theory, operation, and repair of chassis and steering systems. Including: alignment angles, front and rear suspension, struts, unibody structure, and tire and wheel balancing techniques. Advanced systems are also taught including electronic suspension, ride control, and stability control.

AT 215. Automotive Electrical/Electronic Equipment. 3 hours. Design and operation of modern automotive electrical/electronic components and equipment. Storage battery, starting motor, alternator, ignition system, and automotive electrical/electronic testing and servicing equipment.

AT 216. Automotive Electrical/Electronic Equipment Laboratory. 3 hours. Application of electrical/electronic theories to automotive components and servicing equipment.

AT 300. Automotive Internship (____). 3-6 hours. A planned work experience in an automotive industry or business. The student will be employed by an automotive industry or business, and both parties will submit reports and evaluations of experiences to the department coordinator. May be repeated for up to six credit hours. Offered on a Pass/Fail basis only.

AT 301. Fundamentals of Collision Technology. 3 hours. An introduction to the collision repair industry as well as an overview of body shop operations and the insurance industry relating to the automobile is given. Unibody and body-over-frame vehicles, types of steel, aluminum, and fiberglass are covered. Crush zones and collision energy management issues are covered.

AT 310. Automotive Industry Tour (____). 1 hour. In depth tours of selected automotive or diesel and heavy equipment industries. Some travel expenses and time out-of-class is associated with travel to tours out-of-state. May be repeated for a maximum of four hours credit since subject matter is different and tours vary.


AT 399. Automotive Professional Development. 2 hours. Preparation of students for employment in internships and full-time positions. Emphasis is placed on academic planning, certification opportunities and procedures, resume content, job search skills, job interview, business etiquette, time management and goal setting.

AT 400. Automotive Internship (____). 3-6 hours. A planned work experience in an automotive industry or business. The student will be employed by an automotive industry or business, and both parties will submit reports and evaluations of experiences to the department coordinator. May be repeated for up to six credit hours. Offered on a Pass/Fail basis only.

AT 403. Current Topics in Automotive Technology (____). 1-3 hours. Current technical and managerial topics related to automotive business and industry are presented. Guest lecturers and presenters from industry may be utilized. May be repeated if subject matter is different for a maximum of nine credit hours. Prerequisite: Permission of instructor.

AT 405. Laboratory Teaching Internship. 3 hours. Gain teaching experience by assisting a faculty member in presenting lectures, laboratory exercises, and developing training aids. Student must have completed the course for which they are assisting. Written permission of the instructor.

AT 410. Emerging Developments in Automotive Technology. 1 hour. Emerging developments in automotive business and industry are presented. Guest lecturers and presenters from industry may be utilized. May be repeated since subject matter is different for a maximum of six credit hours. Prerequisite: Permission of instructor.

AT 414. Automatic Transmissions. 3 hours. (2 hours lecture, 2 hours laboratory). Theory of operation and design of automatic transmissions/transaxles and their electronic control circuits. Trouble diagnosis and service procedures. Special testing techniques. Prerequisites: AT 215 Automotive Electrical/ Electronic Equipment, AT 216 Automotive Electrical/Electronic Laboratory, and junior standing or permission of instructor.

AT 416. Fluid Power. 3 hours. A study of the laws and theory of operation of fluid power systems; includes the study of pumps, rotary and linear actuators, valves, conductors, fittings, accumulators, reservoirs, coolers, schematics, symbols, safety, open and closed terminology, filtration, contamination control, and fluids.

AT 418. Failure Analysis. 3 hours. Study the theory for determining the root cause of a component failure as it relates to: component design, metallurgy and component operation. In-depth study will include: defining the problem, principles of fractures, principles of wear, indicators, and visual examination.
AT 462. Structural and Non-Structural Analysis. 3 hours. Analysis and repair of the following areas are covered: movable glass, stationary glass, plastic adhesive/welding repair, bolted-on part replacement, welded and adhesively bonded panel replacement, cosmetic straightening steel, measuring, unibody structure repair, and frame sectioning. Prerequisite: AT 301 Fundamentals of Collision Technology.

AT 464. Damage Analysis, Estimating and Insurance Appraisal. 3 hours. Course includes a look at damage analysis, estimating systems and terminology, and an overview of the insurance industry with an emphasis on the automobile. Frontal, side, and rear impact analysis is covered along with mechanical systems analysis, restraints, and refinishes. Electronic estimating software and manual estimating is demonstrated and used. Determination of vehicle value, total loss status, policy coverage, parts sources, and other issues are covered as well. Prerequisites: AT 301 Fundamentals of Collision Technology and AT 462 Structural and Non-Structural Analysis.

AT 510. Automotive Climate Systems. 3 hours. Operating principles, diagnosis, and service techniques of passenger comfort systems.

AT 511. Service Techniques Laboratory. 3 or 5 hours. Practical garage experience in all phases of automotive servicing with related technical content devoted to diagnosis, trouble shooting, and shop management.

AT 519. Fuels, Combustion and Lubricants. 3 hours. Conventional and unconventional energy sources, production and distribution. Automotive, domestic, and industrial fuels and lubricants. Environmental issues are addressed. May be taken for honors.

AT 611. Diesel Engine Fundamentals. 3 hours. Orientation to compression ignition engines: their history, principles of operating, design features, operational cycles, fuels, lubricants and advantages and disadvantages when compared to other prime movers. Prerequisite: 9 hours of automotive credit.

AT 615. Engine Performance Laboratory. 3 hours. Advanced automotive engine performance evaluation with emphasis on the proper testing of computer controlled fuel delivery, ignition spark control, and air management systems. Prerequisites: AT 215 Automotive Electric/Electronic Equipment and AT 216 Automotive Electrical/Electronic Equipment Laboratory.

AT 621. Advanced Diesel Electronics and Diesel Engine Laboratory. 3 hours. Diesel electronic controls, fuel systems, diesel engine service, maintenance, diagnostic procedures, and principles of operation. Prerequisite: AT 215 Automotive Electrical/Electronic Equipment, AT 216 Automotive Electrical/Electronic Equipment Laboratory, and AT 611 Diesel Engine Fundamentals.

AT 630. On Highway Systems. 3 hours. Operation and service of systems found on large trucks, which includes: air brake systems, anti-lock braking systems, transmissions, clutches, PTOs, axles, suspension systems, retarders and trailer systems.

AT 635. Advanced Engine Performance. 3 hours. Theory and operation of advanced engine performance systems. The class provides an in-depth study of fuel delivery systems, emission controls, computer timing, SAE computer control standards (ODB III), engine diagnostics, hands on experience with automotive scanners, lab scopes, 5 gas analyzers, and CAN bus diagnostics. Prerequisite: AT 615 Engine Performance Laboratory.

AT 640. Off Highway Systems. 3 hours. Principles of operation and identification of systems found in agricultural and construction equipment. Systems include tires, undercarriages, track steering systems, power-shift transmissions, PTOs, hitches, Ag tractors, harvesting equipment, seeding equipment, hay and forage equipment, tillage equipment, dozers, wheel loaders, excavators, scrapers, haul trucks and other systems found in off road applications. Prerequisite: AT 416 Fluid Power.

AT 650. Dynamometer and Performance Testing. 3 hours. Theory and operation of chassis and engine dynamometers. Instruction includes performance testing procedures, data acquisition, and evaluation of the purpose of testing vehicles and related systems including engines for improvement and diagnostics. Prerequisites: AT 615 Engine Performance Laboratory or AT 621 Advanced Diesel Electronics and Diesel Engine Laboratory.

AT 654. Advanced Hydraulic Systems and Off Highway Systems Laboratory. 3 hours. Principles of operation and troubleshooting principles are taught for advanced hydraulic systems that include hydrostatic transmissions, load sensing hydraulic systems, and hydraulic steering systems. Overhauling techniques and system testing procedures are practiced on off-highway powertrain and hydraulic systems. Prerequisite: AT 416 Fluid Power, and AT 640 Off Highway Systems.

AT 662. Automotive Finishing and Refinishing. 3 hours. This course includes the discussion of the following: corrosion protection, hazardous materials, personnel safety, refinishing safety, refinishing equipment, VOC regulations, surface preparation and masking, color theory, application, tinting and blending. Prerequisite: AT 301 Fundamentals of Collision Technology.

AT 679. Future Power for Automobile Technology. 3 hours. Advanced automotive technologies including gasoline and diesel engine, hybrid propulsion, repair, safety and high voltage systems, battery systems, alternative fuels, and fuel cells. Prerequisites: AT 112 Engine Analysis, AT 215 Automotive Electrical/Electronic Equipment and AT 216 Automotive Electrical/Electronic Equipment Laboratory, or permission of instructor.

AT 690. Dealership and Manufacturer Management. 3 hours. An introductory course in the management of an automobile or transportation related business covering basic business structure, ownership, types of business facilities, strategic planning, development of company policy, human resources management, recruiting, employee development, evaluation of employees and financial management.

AT 691. Service Management Seminar. 3 hours. Detailed analysis of service department management practices, the district service representative relationship to the service department operation. Actual field experiences are involved.

AT 699. Automotive Senior Seminar. 1 hour. A capstone automotive course simulating situations students encounter in employment and assessment of personal, professional, and technological competencies. Portfolios and ASE examinations are components of assessment. Prerequisite: Senior standing.

AT 795. Special Topics in Automotive Technology (___). 1-3 hours. Selected topics in automotive technology. Regularly scheduled classroom and laboratory study pertaining to a distinct body of technical knowledge. May be repeated if subject matter is different. May be taken on a pass-fail basis.

Aviation Technology

AVT 118. Private Pilot Ground School. 3 hours. Instruction information required to successfully complete the FAA Private Pilot written examination. Subject matter includes: Federal aviation regulations, navigation, aviation weather and aeronautical knowledge. A passing score on the FAA test is required for credit in the course. Offered on a Pass-Fail basis only.

AVT 119. Private Pilot Flight. 3 hours. Completion of flight training by an FAA approved flight instruction program and receipt of a private pilot’s license required for credit. Offered on Pass-Fail only. Prerequisite or corequisite: AVT 118 Private Pilot Ground School.

AVT 418. Instrument Rating Ground School. 3 hours. Successful completion of the written portion of the FAA instrument rating for pilots. Offered on a Pass-Fail basis only.

Biology

BIOL 105. Pre-Health Orientation I. 1 hour. Acquaint freshman with the requirements of professional schools and guide their curricula to enable them to succeed in their chosen career path. Required for all freshman pre-health majors. Offered on a Pass-Fail basis only.

BIOL 111. General Biology. 3 hours. Designed to acquaint the student with the fundamental principles and processes of life as found in animals and plants and their relationship to the everyday life of man. Corequisite: BIOL 112 General Biology Laboratory.

BIOL 112. General Biology Laboratory. 2 hours. Laboratory exercises to accompany BIOL 111 General Biology. Corequisite: BIOL 111 General Biology.

BIOL 113. Environmental Life Science. 4 hours. A basic ecological approach to the principles and processes of life with emphasis placed on human pressures and technology, and the effect of these on the organism-environment complex. Laboratory exercises accompany lecture. Not applicable toward a biology major.

BIOL 114. Environmental Life Science Laboratory for Teachers. 1 hour. Laboratory exercises that build on BIOL 113 Environmental Life Science and focus on topics and activities primarily developed for elementary education majors.

BIOL 202. Topics in Biology (___). 1-3 hours. Intensive study of selected topics in biology. Lecture and laboratory. May be repeated if subject matter is different. Each class limited to a single topic. Prerequisite: Permission of instructor.

BIOL 205. Pre-Health Orientation II. 1 hour. Acquaint sophomores with the requirements of professional schools and guide their curricula to enable them to succeed in their chosen career path. Required for all sophomore pre-health majors. Offered on a Pass-Fail basis only.

BIOL 211. Principles of Biology I. 4 hours. (4 hours lecture and laboratory). An introduction to biology including principles of science, basic chemistry, origin of life, cell biology, genetics, viruses, prokaryote life, evolution, and systematics. Prerequisite: BIOL 111/112 General Biology/Laboratory or minimum ACT comp score of 23 and biology major or major requiring the course; or permission of Department.

BIOL 212. Principles of Biology II. 4 hours. (4 hours lecture and laboratory). A continuation of Principles of Biology I including biology of protista, fungi, plants, and animals. Prerequisite: BIOL 211 Principles of Biology I and biology major or major requiring the course; or permission of Department.

BIOL 257. Anatomy and Physiology. 3 hours. An integrated study of the structure and functions of the human body. This course is not a substitute for BIOL 656/657 Human Physiology/Laboratory and BIOL 660 Human Anatomy and Dissection. Prerequisite: BIOL 111/BIOL 112 General Biology/Laboratory or BIOL 211 Principles of Biology I and BIOL 212 Principles of Biology II. Corequisite: BIOL 258 Anatomy and Physiology Laboratory.

BIOL 258. Anatomy and Physiology Laboratory. 2 hours. Laboratory exercises to accompany BIOL 257 Anatomy and Physiology. Corequisite: BIOL 257 Anatomy and Physiology.
Biol 277. Epidemiology. 3 hours. History, philosophy and current uses of epidemiological research and its associated insights to improve public health including descriptive epidemiology, association and causation, analytical methods, evidence based public health studies and their application to health and promotion at the community level.

Biol 300. Assisting in the Biology Laboratory. 1 hour. For students intending to teach biology or general science in secondary schools. Assisting in the preparation and instruction in various biology course laboratories at the 100 and 200 levels. A minimum of four hours assisting per week is required. Prerequisite: Students must be in the teacher education curriculum; permission of the instructor.

Biol 304. Soil Ecology. 3 hours. Lecture and laboratory. Fundamental chemical, physical, and biological properties of soils, their formation, fertility, and management.

Biol 305. Pre-Health Orientation III. 1 hour. Acquaint juniors with the requirements of professional schools and guide their curricula to enable them to succeed in their chosen career path. Required for all junior pre-health majors. Offered on a Pass-Fail basis only.

Biol 311. Cell Biology. 3 hours. Cell structure and function with emphasis on energy metabolism and use of genetic information. Prerequisites: 8 hours biology, 10 hours chemistry, or permission of instructor. May be taken for honors.

Biol 313. Principles of Conservation. 3 hours. History and philosophy of conservation, resource economics and risk management, causes of and solutions to environmental problems based on the theories and practices of resource management. Prerequisite: General education requirements in natural and physical sciences. May be taken for honors.

Biol 322. Genetics. 3 hours. The principles of genetics with emphasis on the cytological mechanism of inheritance: physical basis, linkage mapping of genes and gene action. Intended primarily for biology majors. Prerequisite: Biol 211 Principles of Biology I, Biol 212 Principles of Biology II, and 5 hours of chemistry. Corequisite: Biol 323 Genetics Laboratory. May be taken for honors.


Biol 330. Principles of Ecology. 3 hours. The theories which form our basic concepts of ecosystems. Abiotic, individual, species, population, community and ecosystem perspectives of living systems. Human ecosystems and man as a member of natural systems. May be taken for honors. Prerequisite: General Education Life Sciences requirement.

Biol 331. Principles of Ecology Laboratory. 1 hour. Field and laboratory experiences in aquatic and terrestrial ecosystems that focus on hands-on computer methods that illustrate basic ecological principles. Reports emphasize the synthesis of data and the use of basic ecological statistics. Prerequisite: Biol 212 Principles of Biology II. Prerequisite or corequisite: Biol 330 Principles of Ecology. May be taken for honors.

Biol 371. General Microbiology. 3 hours. Fundamentals of morphology, physiology, growth, taxonomy, and cultivation of bacteria and related microorganisms. Including a brief introduction to their role in industry, agriculture and medicine. Prerequisite: Biol 111/112 General Biology/Laboratory or Biol 211 Principles of Biology I, and Chem 105/106 Introductory Chemistry/Laboratory or Chem 215/216 General Chemistry I/Laboratory. Corequisite: Biol 372 General Microbiology Laboratory. May be taken for honors.

Biol 372. General Microbiology Laboratory. 2 hours. Laboratory experiences concerning the morphology, cultivation, physiology, and applied aspects of bacteria and related microorganisms. Prerequisite: Biol 111/112 General Biology/Laboratory or Biol 211 Principles of Biology I, and Chem 105/106 Introductory Chemistry/Laboratory or Chem 215/216 General Chemistry I/Laboratory. Corequisite: Biol 371 General Microbiology. May be taken for honors.

Biol 382. Plant Diversity. 3 hours. An overview of the major groups of plants with emphasis on morphological characteristics, evolution and distribution. Prerequisites: Biol 212 Principles of Biology II or permission of instructor. May be taken for honors.

Biol 402. Topics in Biology [____]. 1-3 hours. Intensive study of selected topics in biology. Classroom and laboratory. May be repeated if subject matter is different. Each class limited to a single topic and for a specific number of credit hours. May be taken for honors.

Biol 404. Plant Pathology. 3 hours. Contemporary concepts of plant pathogens, disease processes, host-pathogen relationships, variation of pathogenicity, predisposition, infection and colonization phenomena, control measures and resistance to disease. Prerequisites: Biol 371/372 General Microbiology/Laboratory. May be taken for honors.

Biol 410. Biological and Medical Terminology. 2 hours. A self-study course. Covers the words and roots of words commonly used in the life sciences and medicine. No class meetings; 2 examinations each semester.

Biol 450. Biological Illustration. 2 hours. Techniques of pen and ink rendering for the purposes of illustrating biological research, technical papers, or curriculum.

Biol 479. Techniques for Teaching Biology. 3 hours. Techniques, methods, and course content used in teaching biology in the secondary school. Offered by the Department of Biology. To be taken before the professional semester. Prerequisites: Admission to teacher education.

Biol 481. Clinical Microbiology. 1-8 hours. Theory and laboratory study of pathogenic bacteria, viruses, rickettsiae, fungi, and parasites. Includes morphology, physiology, taxonomy, and medical significance of the various groups; methods of collecting and treating specimens for the isolation and identification of the various types.

Biol 482. Clinical Biochemistry. 1-8 hours. Theory and laboratory study of analytical biochemistry, incorporating routine and special chemical procedures in the analysis of body fluids and their significance in clinical medicine.

Biol 483. Clinical Immunology. 1-6 hours. Theory and laboratory study of the fundamentals of antigen-antibody reactions, blood groups and types, cross-matches, blood components, ABO-approved transfusion practices, and serological procedures used in the determination of immunologic responses.

Biol 484. Clinical Hematology. 1-6 hours. Blood cell derivation, maturation; and function; principles of hemostasis and blood coagulation. Methodology used in routine and special hematology studies and in the detection of hematological disorders.

Biol 485. Topics in Medical Technology [____]. 1-6 hours. General laboratory techniques including clinical microscopy, cytogenetics, urinalysis, nuclear medicine, histology, and a special project. May be repeated for a maximum of 6 hours.

Biol 490. Honors Research in Biology. 1-3 hours. Special research problem in one of the fields of biology. Results of this study are to be submitted in accepted form for publications as set up by American Institute of Biological Sciences. May be repeated for a total of 6 hours. A student may apply a total of 6 hours of credit in Biol 490 Honors Research in Biology and Biol 491 Special Problems in Biology on the 40-hour biology major. Prerequisite: 20 hours of biology, overall grade point average of 3.4, and permission of instructor. May be taken for honors.

Biol 502. Topics in Environmental Biology [____]. 1-3 hours. Intensive study of selected topics in environmental protection and resource management. Each class is limited to a single topic. May be repeated if subject matter is different. Prerequisite: Permission of instructor. May be taken for honors.

Biol 515. Stream Ecology. 3 hours. Survey of the biology, chemistry, ecology and geomorphology of streams and rivers. Lecture and lab. Prerequisite: Biol 330 Principles of Ecology or permission of instructor.

Biol 533. Ichthyology. 3 hours. Lecture and laboratory. The class osteichthyes with special reference to fishes of North America. Prerequisite: Biol 212 Principles of Biology II. May be taken for honors.


Biol 536. Mammalogy. 3 hours. Lecture and laboratory. Morphology, classification, ecology, distribution, evolution and economic importance of mammals. Emphasis given to the mammals of Kansas. Prerequisite: Biol 212 Principles of Biology II. May be taken for honors.

Biol 537. Regional Natural History. 3 hours. Classification, identification, ecology, and collection techniques emphasized in the survey of regional flora, fauna, and geological features. Prerequisite: Biol 211 Principles of Biology I and Biol 212 Principles of Biology II or permission of instructor. May be taken for honors.

Biol 538. Aquatic Plants. 2 hours. Lecture and laboratory. Taxonomy and ecology of plants and macroalgae that are aquatic or closely associated with water. Prerequisites: Biol 211 Principles of Biology I, Biol 212 Principles of Biology II or permission of instructor.

Biol 548. Taxonomy of Vascular Plants. 3 hours. Lecture and laboratory. The scientific classification and identification of ferns and seed plants, with emphasis on the local flora. Methods of collection, preservation and preparation of herbarium specimens included. Prerequisite: Biol 212 Principles of Biology II or permission of instructor. May be taken for honors.

Biol 550. Advanced Cellular and Molecular Biology. 3 hours. Discussion of current issues in cellular and molecular research. Prerequisites: 6 courses in biology and/or chemistry. May be taken for honors.

Biol 551. Introduction to Recombinant DNA Techniques Laboratory. 3 hours. Laboratory designed to offer experience in plasmid and genomic DNA isolation and analysis, RNA isolation and analysis, cloning, transformation, and PCR. Prerequisites: Biol 322/323 Genetics/Laboratory, Biol 371/372 General Microbiology/Laboratory, 30 hours of chemistry. May be taken for honors.
COURSE DESCRIPTIONS

BIOL 561. General Entomology. 3 hours. Lecture and laboratory. Structure, classification, physiology, ecology, and economic importance of insects. Prerequisite: BIOL 212 Principles of Biology II. May be taken for honors.

BIOL 570. Pathogenic Bacteriology. 3 hours. The isolation, identification, mechanisms of pathogenesis, host relations, immunity and public health aspects of disease producing bacteria and rickettsiae. Prerequisite: BIOL 371/BIOL 372 General Microbiology/Laboratory. Corequisite: BIOL 571 Pathogenic Bacteriology Laboratory. May be taken for honors.

BIOL 571. Pathogenic Bacteriology Laboratory. 2 hours. Laboratory experiences concerning the isolation, cultivation and identification of disease-producing bacteria. Corequisite: BIOL 570 Pathogenic Bacteriology. May be taken for honors.

BIOL 572. General Virology. 3 hours. Basic concepts regarding the nature of viruses and their properties, together with techniques for their growth, characterization and identification of the major groups of animal viruses. Prerequisite: BIOL 373/BIOL 372 General Microbiology/Laboratory. May be taken for honors.

BIOL 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

BIOL 602. Topics in Biology [_____]. 1-3 hours. Intensive study of selected topics in biology. Classroom and laboratory study. May be repeated if subject matter is different. Each class is limited to a single topic and for a specific number of credit hours. Prerequisite: 15 hours of biology and permission of instructor. May be taken for honors.

BIOL 605. Bioethics. 3 hours. Ethical theory and analysis as it applies to biology. Ethical issues which result from our expanding scientific knowledge base, including genetic testing, bioengineering, abortion and euthanasia, patients' rights, medical/scientific ethics, and the allocation of medical resources. Course will focus on historical case studies. Prerequisite: Junior standing. May be taken for honors.

BIOL 612. Internship in Biology. 1-3 hours. A cooperative education experience in a career area in biology. Requires a formal agreement between the instructor and the immediate supervisor of the industry or agency. Prerequisite: 15 hours of biology and permission of instructor. May be repeated for a maximum of three hours.

BIOL 615. Environmental Protection. 3 hours. A review of the history of conservation and environmental law, the legal, political, social, and scientific aspects of environmental protection, and major federal environmental laws. Prerequisite: BIOL 513 Resource Conservation. May be taken for honors.

BIOL 617. Environmental Health. 3 hours. The risks of human health from pollution; the major routes of exposure to humans from environmental contaminants in air, water, and soil; human health standards; sanitation; overview of occupational health and safety; calculations of exposures and dose/response effects; and risk assessment and management. Prerequisites: 10 hours of biology or permission of instructor. May be taken for honors.

BIOL 627. Genetics of Microorganisms. 3 hours. Emphasis on microorganisms as a "tool" of genetics. Advantages and disadvantages of each organism to specific research areas are discussed. Prerequisite: (10 hours of biology including one course in genetics), BIOL 322/BIOL 323 Genetics/Laboratory, BIOL 371/BIOL 372 General Microbiology/Laboratory. May be taken for honors.

BIOL 633. Limnology. 3 hours. Lecture and laboratory. Biotic, physical and chemical characteristics of fresh water environments. Biological mapping of lakes and streams: productivity studies. Prerequisites: 15 hours of biology, 10 hours of chemistry. May be taken for honors.


BIOL 635. Wildlife Ecology and Management. 3 hours. Lecture and laboratory. Application of ecological principles toward the manipulation of terrestrial wildlife populations. Laboratory sessions stress techniques, local management practices and discussion with wildlife personnel. Prerequisites: BIOL 330 Principles of Ecology, BIOL 212 Principles of Biology II. May be taken for honors.

BIOL 639. Terrestrial Field Ecology. 3 hours. Lecture, laboratory and field. Field techniques used to determine community structure and population dynamics in terrestrial systems. Purpose of ecological assessment, design of projects, sampling, data exploration, analysis, interpretation and reporting. Addresses environmental consulting and scientific research projects. Prerequisite: BIOL 330 Principles of Ecology. May be taken for honors.

BIOL 641. Identification of Woody Plants. 2 hours. An overview of the morphology, basic anatomy, distribution, ecology, and identification of woody trees, shrubs and vines. Emphasis will be on collections, identification, and field ecological methods. Numerous field trips. May be taken for honors.

BIOL 643. Natural History Interpretation. 3 hours. Communicating natural history through presentations, interpretive writing, exhibit design, and conducted activities. Application of these skills emphasized. Prerequisite: 13 hours of biology including ecology and field biology courses or permission of instructor.

BIOL 650. Developmental Biology. 3 hours. The principles of development, early developmental processes, molecular embryology, developmental genetics and bioethics. Prerequisites: BIOL 311 Cell Biology, BIOL 322/323 Genetics/Laboratory, CHEM 215/216 General Chemistry I/Laboratory. May be taken for honors.

BIOL 653. Biology of Cancer. 3 hours. An overview of the molecular biology, cellular biology, and genetics of cancer. Topics include causes of cancer, cell-cycle control, oncogenes, tumor suppressors, metastasis, and anti-cancer treatment strategies. Prerequisite: BIOL 311 Cell Biology or permission of instructor.

BIOL 656. Human Physiology. 3 hours. Chemical and physical basis of human physiology. Emphasis on molecular mechanisms as they apply to understanding systems. Prerequisites: 10 hours of biology, 10 hours of chemistry, including organic, 5 hours of physics. Corequisite: BIOL 657 Human Physiology Laboratory. May be taken for honors.

BIOL 657. Human Physiology Laboratory. 2 hours. Laboratory exercises to accompany BIOL 656 Human Physiology. Corequisite: BIOL 656 Human Physiology. May be taken for honors.

BIOL 660. Human Anatomy and Dissection. 5 hours. The study of gross human structures. Students will dissect and study human cadavers. Anatomical models, a text, an atlas, and lecture material will be other sources of information. Prerequisite: Permission of instructor. May be taken for honors.

BIOL 665. Medical Entomology. 3 hours. Investigation of arthropod-vectored diseases of the world from an ecological perspective. Biology of vectors, pathogens and disease symptoms. Relationships among disease cycles, reservoirs and the ecological, social, political factors involved in epidemiology of diseases. Emphasis on human health with exposure to veterinary health. Effect of diseases on human history. Prerequisites: BIOL 111/112 General Biology/Laboratory or BIOL 211 Principles of Biology I or BIOL 212 Principles of Biology II or consent of instructor.

BIOL 667. Animal Parasitology. 3 hours. Overview of parasitic protozoans, flatworms, roundworms, and important arthropod vectors highlighting life cycles, morphology, relationships with hosts, and diagnostic techniques. Prerequisites: BIOL 111/112 General Biology/Laboratory. BIOL 330 Principles of Ecology recommended.

BIOL 671. Immunology. 3 hours. Principles of immunity and serology; immunology of physiology and interactions of antigen and antibodies in vitro and in vivo; mechanisms of immunologic damage. Prerequisites: BIOL 570/BIOL 571 Pathogenic Bacteriology/Laboratory and 5 hours of organic chemistry or consent of instructor. May be taken for honors.

BIOL 672. Immunology Laboratory. 2 hours. Selected recent laboratory experiments to accompany BIOL 671 Immunology. Prerequisite or corequisite: BIOL 671 Immunology. May be taken for honors.

BIOL 675. Microbial Physiology. 3 hours. The metabolic processes of micro organisms with emphasis on the bacteria. Prerequisite: 10 hours of biology including BIOL 371/BIOL 372 General Microbiology/Laboratory. 10 hours of chemistry, including organic, or permission of instructor. Biochemistry strongly recommended. May be taken for honors.

BIOL 676. Microbial Physiology Laboratory. 2 hours. Laboratory experience to complement lecture and classroom work in microbial physiology, with emphasis on bacteria. Prerequisites: 10 hours of biology including BIOL 371/BIOL 372 General Microbiology/Laboratory, 10 hours of biochemistry including organic permission of the instructor. Biochemistry strongly recommended. May be taken for honors.

BIOL 685. Plant Physiology. 3 hours. The chemical and physical phenomena occurring in the living plant. Prerequisites: BIOL 211 Principles of Biology I and BIOL 212 Principles of Biology II. Ten hours of chemistry, including organic. Corequisite: BIOL 686 Plant Physiology/Laboratory. May be taken for honors.


BIOL 699. Senior Seminar and Assessment. 1 hour. Individual reports and group discussion of problems and current research in the biological sciences. Includes an examination to assess the student's general understanding and knowledge of biological principles and facts. Prerequisite: Senior Standing. Required of all graduating seniors, except BSED majors.

BIOL 730. Evolution. 3 hours. Examines the current synthesis of evolutionary theory including prebiotic development of protein, microspheres and the potential modes of speciation of living organisms. Prerequisites: BIOL 322/BIOL 323 Genetics/Laboratory, BIOL 371/BIOL 372 General Microbiology/Laboratory (10 hours of biology). May be taken for honors.

BIOL 744. Identification of Mosses, Liverworts and Ferns. 3 hours. Lecture, laboratory and field. Overview of characteristics, evolution and ecology of mosses, liverworts and ferns. Emphasis on identification of local and regional flora. May be taken for honors.
Biol 781. Freshwater Algae. 3 hours. Descriptive, physiological and ecological aspects of locally represented algal divisions. Laboratory and field work will concentrate on collection, identification, and distribution of local algal flora. Prerequisite: Biol 212 Principles of Biology II. May be taken for honors.


Biol 800. Seminar. 1 hour. Individual reports and group discussion of problems and current research in biology. May be repeated. Participation required of all regularly enrolled graduate students.

Biol 801. Introduction to Research. 3 hours. Proposal preparation, research techniques, use of library, analysis and presentation of research data. Required for all graduate students.

Biol 802. Advanced Topics in Biology (honors). 1-3 hours. Intensive study of selected topics in biology. Classroom and laboratory study. May be repeated if subject matter is different. Each class limited to a single topic and for a specific number of credit hours. Prerequisites: 15 hours of biology and permission of instructor.

Biol 803. Biometry. 3 hours. The application of statistical methods to data from various fields of biological research. Special emphasis placed on practical computational procedures and experimental design. Prerequisites: Math 113 College Algebra or Math 110 College Algebra with Review or Math 126 Pre-Calculus and 20 hours of biology.

Biol 810. Recent Literature in Biology (honors). 1 hour. A survey of recent literature in specific areas of biology (for example, ecology, genetics, immunology, physiology, etc.). May be repeated for a maximum of 3 hours. Prerequisite: Permission of instructor.

Biol 812. Internship in Biology. 1-3 hours. A cooperative education experience in a career area in biology. Requires a formal agreement between the instructor and the immediate supervisor of the industry or agency. Prerequisite: 15 hours of biology and permission of instructor.


Biol 835. Wildlife Ecology and Management. 3 hours. Lecture and laboratory. Application of ecological principles toward the manipulation of terrestrial wildlife populations. Laboratory sessions stress techniques, local management practices and discussion with wildlife personnel. Prerequisites: Biol 330 Principles of Ecology, Biol 212 Principles of Biology II.

Biol 836. Aquaculture Concepts. 3 hours. Lecture, project and field trips. The principles of aquatic animal husbandry with a primary emphasis on fish hatchery operations. Includes a project dealing with aquaculture and several field trips to a variety of fish production facilities. Prerequisites: Biol 212 Principles of Biology II, Biol 330 Principles of Ecology.

Biol 874. Problems in Microbiology. 1-6 hours. Individual work on microbiological problems suited to the needs and interests of the students, with emphasis on local problems. May be repeated for a total of 6 hours. Prerequisites: 25 hours of biology, including 10 hours of microbiology. Permission of instructor required.

Biol 884. Problems in Botany. 1-6 hours. Individual work on problems of taxonomy, morphology, ecology, and physiology, or other aspects of plants with emphasis on those of local interest. May be repeated for a total of 6 hours. Prerequisites: 25 hours of biology, including 10 hours of botany.

Biol 890. Research and Thesis. 1-60 hours depend. To be taken by students in Option I for Masters of Science in biology. May be repeated.

Biol 891. Research Problems. 1-3 hours. Field, laboratory or library research project for candidates for Option II for Master of Science in biology. May be repeated for a maximum of 3 hours.

Biol 895. Professional Experience. 3 hours. The experience will be arranged by the student, and may be voluntary or a paid position, as long as it is deemed “professional” by the student’s committee. The student and the committee will develop guidelines for the experience that may include a timeline, a detailed description of the experience(s), and a rationale for how the experience will contribute to the development of the student’s expertise in his/her profession. Examples of professional experience might include (1) for a classroom teacher, developing and/or implementing a curriculum, (2) for an environmental scientist, designing and/or implementing an environmental mitigation project, (3) for a biotechnologist, developing and/or implementing a new process or product. Pre-requisites: Biol 801 Introduction to Research and Biol 803 Biometry. May be repeated for a maximum of six hours.

Chemistry

Chem 105. Introductory Chemistry. 3 hours. Survey of introductory chemical principles and properties of common materials. Topics include gases, crystalline solids, solutions, energy, polymers, organic compounds and biomolecules. Not intended for majors that require Chem 215 General Chemistry I. Prerequisite or Corequisite: Chem 106 Introductory Chemistry Laboratory.

Chem 106. Introductory Chemistry Laboratory. 1 hour. Experiments to accompany Chem 105 Introductory Chemistry. Prerequisite or Corequisite: Chem 105 Introductory Chemistry.

Chem 107. Chemistry for the Life Sciences. 3 hours. Introduction to general, organic, and biochemistry for life science majors. Meets the requirements of students of nursing, dental hygiene, physical therapy, and other allied health program. May be taken by technology majors with comparable requirements. Does not satisfy the requirements of chemistry, physics and biology majors. Co-requisite: Chem 108 Chemistry for the Life Sciences Laboratory.


Chem 112. Essentials of Chemistry. 3 hours. Designed to review fundamental skills and knowledge needed for Chem 215 General Chemistry I. For students without previous chemistry background. Chem 113 Essentials of Chemistry Laboratory optional.


Chem 215. General Chemistry I. 3 hours. An introduction to calculations, atomic structure, periodicity, molecular bonding, chemical reaction and gases. An introductory course for students planning a science major. Prerequisite: Score of 20 on Math section of ACT or College Algebra or Chem 105 Introductory Chemistry. Prerequisite or Corequisite: Chem 216 General Chemistry I Laboratory.

Chem 216. General Chemistry I Laboratory. 2 hours. Experiments to accompany Chem 215 General Chemistry I. Four hours of laboratory per week. Prerequisite or Corequisite: Chem 215 General Chemistry I.

Chem 225. General Chemistry II. 3 hours. A continuation of Chem 215 General Chemistry I. Introduction to chemical kinetics, chemical equilibrium, acids and bases, and thermodynamics. Prerequisite: Chem 215 General Chemistry I.

Chem 226. General Chemistry II Laboratory. 2 hours. Experiments to accompany Chem 225 General Chemistry II. Four hours of laboratory per week. Prerequisite or Corequisite: Chem 225 General Chemistry II.

Chem 299. Sophomore Research in Chemistry, 1-3 hours. Research problems in chemistry. Prerequisite: Approval of instructor.

Chem 320. Introductory Organic Chemistry. 3 hours. Survey of organic chemistry, structure, nomenclature, reactions, biomolecules, and polymers. Three lectures per week. Not open to students with credit in Chem 325 Organic Chemistry I. Prerequisites: Chem 105 Introductory Chemistry or Chem 107 Chemistry for the Life Sciences or Chem 215 General Chemistry I. Prerequisite or Corequisite: Chem 326 Organic Chemistry Laboratory.

Chem 325. Organic Chemistry I. 3 hours. Introduction to organic bonding, structure, nomenclature, mechanisms and reactions. Prerequisite: Chem 215 General Chemistry I. Chem 225 General Chemistry II is strongly recommended. Prerequisite or Corequisite: Chem 326 Organic Chemistry Laboratory.


Chem 336. Organic Chemistry II Laboratory. 2 hours. Experiments to accompany Chem 335 Organic Chemistry II. Four hours of laboratory per week. Prerequisite or Corequisite: Chem 335 Organic Chemistry II. May be taken for honors.

Chem 369. Laboratory Assistant Practicum 1.3 hours. For students intending to teach chemistry in secondary schools. Assisting in preparation and instruction in one of several chemistry laboratories. A minimum of four hours assisting per week is required. Prerequisite: Needs consent of instructor.

Chem 399. Junior Research in Chemistry. 1-3 hours. Research problems in chemistry. May be taken for honors. Prerequisite: Approval of Instructor.

Chem 413. Selected Topics in Chemistry. 2-3 hours. Lecture, laboratory, or seminar study of specific topics in chemistry. Prerequisites: 15 hours of chemistry and permission of instructor.
CHEM 445. Analytical Chemistry. 3 hours. Fundamental principles of gravimetric, volumetric, spectroscopic, chromatographic, and electrochemical analysis. Prerequisite: CHEM 225 General Chemistry II. Prerequisite or Corequisite: CHEM 446 Analytical Chemistry Laboratory. May be taken for honors.

CHEM 446. Analytical Chemistry Laboratory. 2 hours. Experiments to accompany CHEM 445 Analytical Chemistry. Four hours of laboratory per week. Prerequisite: CHEM 226 General Chemistry II Laboratory. Prerequisite or Corequisite: CHEM 445 Analytical Chemistry. May be taken for honors.

CHEM 469. Laboratory Assistant Practicum II. 3 hours. For students intending to teach chemistry in secondary schools. Assisting in preparation and instruction in one of several chemistry laboratories. A minimum for four hours assisting per week is required. Prerequisite: CHEM 369 Laboratory Assistant Practicum I.

CHEM 479. Techniques for Teaching Chemistry. 3 hours. Techniques, methods, and course content used in teaching chemistry in the secondary school. Offered by the Department of Chemistry. To be taken before the professional semester. Prerequisites: Admission to teacher education and PSYC 357 Educational Psychology.

CHEM 569. Laboratory Assistant Practicum III. 3 hours. For students intending to teach chemistry in secondary schools. Students are placed in charge of all instruction in a single undergraduate laboratory section. Prerequisites: CHEM 369 Laboratory Assistant Practicum I and CHEM 469 Laboratory Assistant Practicum II.


CHEM 576. Biochemistry I Laboratory. 2 hours. Biochemistry laboratory experiments to complement CHEM 575 Biochemistry I. Prerequisite or Corequisite: CHEM 575 Biochemistry I.

CHEM 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

CHEM 593. Physical Chemistry I. 3 hours. An introduction to physical chemistry with an emphasis on thermodynamics. Prerequisites: CHEM 225 General Chemistry II, PHYS 105 Engineering Physics II, MATH 150 Calculus I. May be taken for honors.

CHEM 594. Physical Chemistry I Laboratory. 2 hours. Laboratory to accompany CHEM 593 Physical Chemistry I. Four hours laboratory per week. Prerequisite or Corequisite: CHEM 593 Physical Chemistry I. May be taken for honors.

CHEM 595. Physical Chemistry II. 3 hours. A continuation of CHEM 593 Physical Chemistry I with an emphasis on quantum chemistry. Three lectures per week. Prerequisites: CHEM 593 Physical Chemistry I and MATH 253 Calculus III. May be taken for honors.

CHEM 596. Advanced Inorganic-Physical Chemistry Laboratory. 2 hours. Inorganic synthesis and the physical chemistry of inorganic compounds. Four hours of laboratory per week. Prerequisite: CHEM 594 Physical Chemistry I Laboratory. Prerequisite or Corequisite: CHEM 595 Physical Chemistry II. May be taken for honors.

CHEM 601. Chemistry Colloquium. 0-1 hours. Oral reports presented and accompanied by a written paper. May be repeated. Offered on a Pass-Fail basis if taken for zero hours. Offered both semesters. May be taken for honors.

CHEM 611. Senior Review and Assessment. 1 hours. Capstone course for undergraduate chemistry majors along with exiting assessment. Prerequisite: Senior standing.

CHEM 620. Polymer Chemistry. 3 hours. High molecular weight molecules including polymer structure, synthesis of polymers and characterization of polymer structure by various instrumental methods. Prerequisite: CHEM 320 Introductory Organic Chemistry or CHEM 325 Organic Chemistry I.

CHEM 621. Polymer Chemistry Laboratory. 2 hours. Polymer experiments to accompany CHEM 620 Polymer Chemistry. Four hours of laboratory per week. Prerequisite: CHEM 326 Organic Chemistry Laboratory. Prerequisite or Corequisite: CHEM 620 Polymer Chemistry.

CHEM 623. Inorganic Chemistry. 3 hours. Special topics in inorganic chemistry. Prerequisite: CHEM 593 Physical Chemistry I and CHEM 595 Physical Chemistry II. May be taken for honors.

CHEM 645. Instrumental Analysis. 3 hours. Concepts of instrumental methods of chemical analysis. Emphasis on design, operation, and theoretical foundations of instruments and instrumental procedures. Prerequisite or Corequisite: CHEM 593 Physical Chemistry I. May be taken for honors.

CHEM 646. Instrumental Analysis Laboratory. 2 hours. Instrumental analysis experiment to accompany CHEM 645 Instrumental Analysis. Prerequisite or Corequisite: CHEM 645 Instrumental Analysis and CHEM 446 Analytical Chemistry Laboratory. May be taken for honors.

CHEM 699. Senior Research in Chemistry. 1-3 hours. Special research in chemistry. A written report is required. Prerequisite: Permission of instructor. May be repeated. May be taken for honors.

CHEM 705. Modern Concepts of Chemistry. 1-5 hours. Fields available: (a) analytical chemistry, (b) biochemistry, (c) inorganic chemistry, (d) organic chemistry, (e) physical chemistry. Limited to 1-5 hours in each field. May be repeated if different field is selected. Prerequisite: Approval of the department. May be taken for honors.


CHEM 735. Laboratory Safety and Compliance. 1 hours. Survey of recommended best practices for safe laboratory operation, handling and disposal of hazardous materials, electricity, radiation, pressurized or cryogenic gases, and first aid, including the latest federal, state, city, and campus regulations to prevent accidents or exposures that may cause injury, property damage, or interference with other work. Recommended for Lab Assistants. Prerequisite: CHEM 225 General Chemistry II.

CHEM 773. Biochemistry II. 3 hours. Biochemistry of DNA and RNA, replication, transcription and translation. Recombinant DNA methodologies, polymease chain reaction technologies and gene cloning. Prerequisites: CHEM 335 Organic Chemistry II and CHEM 593 Physical Chemistry I or permission of the instructor. May be taken for honors.

CHEM 774. Biochemistry II Laboratory. 2 hours. Experiments to accompany CHEM 773 Biochemistry II. Four hours of laboratory per week. Prerequisite or Corequisite: CHEM 773 Biochemistry II. May be taken for honors.

CHEM 785. Physical Chemistry of Polymers. 3 hours. Molecular weights of polymers and methods of determination. Structure of polymer chain. Amorphous and crystalline states, viscoelasticity, kinetics. Polymer solutions and blends. Thermodynamics and statistical mechanics of polymer elasticity. Prerequisites: CHEM 325 Organic Chemistry I or CHEM 320 Introductory Organic Chemistry and CHEM 620 Polymer Chemistry or permission of instructor.

CHEM 793. Advanced Chemical Kinetics. 3 hours. A survey of the basic principles of chemical kinetics. Prerequisite: CHEM 593 Physical Chemistry I and CHEM 595 Physical Chemistry II.

CHEM 801. Chemistry Colloquium. 1 hours. Oral reports presented and accompanied by a written paper. May be repeated. Required of all graduate students every semester of enrollment.

CHEM 815. Advanced Topics in Chemistry. 1-5 hours. Theoretical or laboratory study. Fields available: (1) analytical chemistry, (2) biochemistry, (3) electronic instrumentation, (4) inorganic chemistry, (5) organic chemistry, (6) physical chemistry. Limited 1-5 hours in each field.

CHEM 823. Advanced Inorganic Chemistry. 3 hours. Selected topics in inorganic chemistry.

CHEM 863. Advanced Organic Chemistry. 3 hours. Organic reactions and rearrangements organized according to mechanistic types, with emphasis on mechanisms, stereochemistry, and theoretical interpretations of reaction rates and driving forces.

CHEM 883. Chemical Thermodynamics. 3 hours. The application of the laws of thermodynamics to chemical systems.

CHEM 889. Introduction to Chemical Research. 1-9 hours. Graduate level research, may be repeated, but only six hours may be credited towards the degree program. Prerequisite: Enrollment in the Chemistry Masters Program. Offered on a pass/fail basis only.

CHEM 890. Research and Thesis. 1-6 hours. May be repeated. No more than six hours applies toward the master’s degree, except when additional hours are determined by the Department to be required to complete the thesis and its defense.

CHEM 891. Research Problems. 1-6 hours. May be repeated. No more than six hours applies toward the master’s degree, except when additional hours are determined by the Department to be required to complete the problem and report.

CHEM 895. Comprehensive Reviews in Chemistry. 1 hours. The course is designed to prepare the students for their comprehensive examination. A letter grade will be assigned on the basis of the examination. The examination may be repeated for the purpose of raising the grade.

Computer Information Systems

CIS 130. Computer Information Systems. 3 hours. An introduction to the use of computer systems in business and industry. Computer hardware and software, data communications, and computer based information systems. Introduction to word processing, spreadsheets, data bases, and a survey of programming languages.
CIS 230. Visual Basic Programming. 3 hours. This is an introduction to the Visual Basic programming language and to the Visual Studio program development environment. It is designed as an entry level course to introduce basic programming concepts using object-oriented methodologies. Prerequisite: MATH 019 Intermediate Algebra or MATH 110 College Algebra with Review or MATH 113 College Algebra or MATH 126 Pre-Calculus or MATH 150 Calculus I or MATH 153 Introduction to Analytic Processes and 25 hours completed or permission of the instructor.

CIS 240. C++ Programming. 3 hours. An introduction to programming using the C++ language. Prerequisite: MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus or permission of instructor.

CIS 245. Java Programming. 3 hours. An introduction to programming using the java language. Prerequisite: MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus or permission of instructor.

CIS 250. Principles of Software Design. 3 hours. Development of discipline in programming using structured programming, algorithmic design, data abstraction using objects, testing, and implementation of basic data structures and algorithms used in computing. C++ will be used for programming assignments. Prerequisite: CIS 240 C++ Programming.

CIS 325. Advanced Visual Basic Programming. 3 hours. This course covers advanced topics in Visual Basic and the Visual Studio.Net program development environment. It covers advanced object-oriented programming concepts as well as three-tier application development and deployment used for the Visual Basic.Net. Prerequisite: CIS 230 Visual Basic Programming and 55 hours completed.

CIS 340. Digital Computer Design. 3 hours. Fundamentals of switching algebra, logic design of combination and sequential circuits with applications to computer systems. Topics include flip-flops, timers, registers, digital arithmetic, register and memory, bus systems. Prerequisites: CIS 230 Visual Basic Programming or CIS 240 C++ Programming and 55 hours completed or permission of instructor. May be taken for honors.

CIS 345. Object Oriented Programming Using Java. 3 hours. An introduction to advanced object-oriented programming methodologies using the Java language. Prerequisite: CIS 245 Java Programming or CIS 380 Application System Analysis/Design Methods or permission of instructor.

CIS 350. Introduction to System Administration. 3 hours. An introduction to the concepts and practices of computer systems administration. Topics include the installation and management of systems and applications and hardware components including network devices, access control for system resources; the role of administrative policies and procedures, identification of threats and countermeasures; operational controls, and audit practices required for system security and system recovery. Prerequisites: CIS 230 Visual Basic Programming or CIS 240 C++ Programming or equivalent or permission of instructor. May be taken for honors.

CIS 380. Application Systems Analysis and Design Methods. 3 hours. An introduction to methods used to design computer applications. The course will explore traditional and object-oriented methods used for the analysis and design of large application systems. It will focus on Object Oriented Analysis (OOA) and Object Oriented Design (OODD) methodologies. Prerequisite: CIS 250 Principles of Software Design or CIS 325 Advanced Visual Basic Programming and 55 hours completed or permission of instructor. May be taken for honors.


CIS 420. Management Information Systems. 3 hours. Survey of the principle concepts with emphasis on computer-based transactional and management information system. Computer systems, files and file processing, systems analysis and design, managerial, organizational and social issues. Prerequisites: "C" in CIS 380 Computer Information Systems, junior standing, or permission of instructor. May be taken for honors.

CIS 435. Fundamentals of Operating Systems. 3 hours. Processor communication and allocation, memory management, I/O device management, file systems, and protection. Prerequisite: CIS 340 Digital Computer Design or CIS 350 Introduction to System Administration, 55 hours completed and 2.50 GPA. May be taken for honors.

CIS 470. Computer Networking. 3 hours. Concepts of communications, computer networking principles, and survey of technical components of a distributed computer system. Prerequisite: CIS 340 Digital Computer Design or CIS 350 Introduction to System Administration, 55 hours completed and 2.50 GPA. May be taken for honors.

CIS 510. Data Structures and Algorithms. 3 hours. The study of basic data structures of computer science and their implementations. An examination of various algorithms for storing, sorting, searching, and retrieval. Prerequisite: CIS 250 Principles of Software Design or CIS 345 Object Oriented Programming Using Java, 55 hours completed and 2.50 GPA. May be taken for honors.

CIS 540. Programming Languages. 3 hours. Survey of programming language concepts with emphasis on fundamental structures, syntax, semantics, and run time implementations. Formal descriptions of languages and survey of specialized languages and their features. Data abstraction and procedures. Prerequisite: CIS 250 Principles of Software Design and CIS 340 Digital Computer Design, 55 hours completed and 2.50 GPA or permission of instructor. May be taken for honors.

CIS 590. Directed Reading (____). 1-3 hours. Reading under the supervision of an instructor on a topic chosen by the student with the advice of the instructor. May be repeated if subject matter differs. Consent of the department required for enrollment.

CIS 610. Internship. 1-3 hours. This course requires an in-depth involvement in on-going project under direct professional supervision. A project may be on-campus or with a business, financial institution or governmental agency. A formal report of project activities must be submitted to a designated faculty sponsor. Students must apply for admission to the course and selection will be made by the internship committee. Prerequisites: GPA of 2.75 or greater in all CIS courses, 55 hours completed, 2.50 GPA and the consent of the Departmental Internship Committee.

CIS 615. Database Management. 3 hours. Analysis and design of large integrated data bases. Design alternatives. Logical and physical representation of data. Storage and retrieval mechanisms and languages. Survey of existing systems. Roles of the Database Manager and Analyst. Prerequisite: CIS 250 Principles of Software Design or CIS 325 Advanced Visual Basic Programming or permission of instructor. May be taken for honors.

CIS 640. Software Engineering. 3 hours. Survey of methods for definition, design, development, documentation, and implementation of significant software systems. Formal theories for representation, correctness, and related development tools. Individual and team projects drawn from computer science applications. Prerequisites: Senior standing, CIS 250 Principles of Software Design or CIS 380 Application Systems Analysis and Design Methods. May be taken for honors.

CIS 645. Internet Programming. 3 hours. Development of discipline in Web programming. Emphasis will be given on contemporary Web development tools. Prerequisite: CIS 250 Principles of Software Design. May be taken for honors.

CIS 670. Information Assurance and Computer Security I. 3 hours. Overview of the central issues that impact upon information assurance and computer security. Material covered will address the administrative, technical, physical, legal, and ethical issues related to providing confidentiality, integrity, and availability of information in a networked computing environment. Prerequisites: CIS 350 Introduction to System Administration or CIS 470 Computer Networking, 55 hours completed, 2.50 GPA or permission of the instructor. May be taken for honors.

CIS 671. Information Assurance and Computer Security II. 3 hours. Information systems security models, software security and systems lifecycle management, policy implementation, personnel responsibilities, contingency planning, physical security and administrative controls. Prerequisite: CIS 670 Information Assurance and Computer Security I, 55 hours completed and 2.50 GPA. May be taken for honors.

CIS 690. Topics in Computer Science (____). 1-3 hours. Computing topics consistent with current interests of staff and students. May be repeated with different topics for a maximum of 6 hours. Prerequisite: CIS 420 Management Information Systems or ACCTG 420 Information Technology and Accounting Systems.

CIS 801. Topics: (___). 1-3 hours. A study of an area of Information Systems theory or applications. A specific topic will be defined each time the course is offered. May be repeated if the topic is different. Prerequisite: CIS 420 Management Information Systems and permission of instructor.

Construction Management and Construction Engineering Technology

CMCET 133. Construction Graphics. 3 hours. (1 hour lecture; 4 hours laboratory). Computer based 2D & 3D graphics used in the construction industry including CAD/REVIT based drawing development, construction drawing interpretation, site/plan/elevation/section/detail drawings, structural and MEP drawings. Residential and commercial construction based.

CMCET 200. Cooperative Education (____). 1-6 hours. A cooperative college-industry, college-business, or college-governement work experience. The student is interviewed and employed by an industrial, business or government organization, then a work program is outlined. Supervision of the work experience is conducted by the employer and the college coordinator. May be repeated if subject matter is different. Written permission of department chairperson required. Offered on a Pass-Fail basis only.

CMCET 234. The Construction Industry. 3 hours. (3 hours lecture). Overview of construction as a profession and of the construction industry including NCCER core curriculum topics, types of construction, professional organizations, contract delivery systems, ethics, communication and software applications within construction.

CMCET 235. Methods of Construction-Light Frame and Finishes. 2 hours. (2 hours lecture; Laboratory experience required). Light framing, thermal and moisture protection, doors and windows, and finishes. Materials and methods of construction. Review of drawings and specifications. Identification and quantification of labor and material units for productivity and cost determination.
CMCET 300. Cooperative Education (1-3). 3-6 hours. A cooperative college-industry, college-business, or college-government work experience. The student is interviewed and employed by an industrial, business or government organization, then a work program is outlined. Supervision of the work experience is conducted by the employer and the college coordinator. May be repeated if subject matter is different. Written permission of department chairperson required. Offered on a Pass-Fail basis only.

CMCET 330. Mechanical Systems (HVAC). 3 hours. (3 lecture hours). Design, installation and operation of HVAC systems, materials and equipment in residential and commercial construction. Includes design projects, blueprint reading and quantification of labor and material units for productivity and cost estimation. Prerequisites: CMCET 133 Construction Graphics and a "C" or better in MATH 113 College Algebra or equivalent.

CMCET 331. Electrical Systems. 3 hours. (3 lecture hours). Design, installation and operation of materials and equipment in electrical power/lighting systems for residential and commercial construction. Includes design projects, construction drawing review, labor and material estimating, computer based design and 3D modeling. Lab experiences required. Prerequisites: CMCET 133 Construction Graphics and a "C" or better in MATH 113 College Algebra or equivalent.

CMCET 332. Residential Design. 3 hours. (1 hour lecture, 4 hours laboratory). Space utilization, circulation, structural design, energy efficient design, building costs, architect-owner-contractor relationship, exterior design, electrical/mechanical considerations and techniques for preparing architectural residential drawings using CAD. Includes NAHB Certified Green Professional Designation. Prerequisite: CMCET 133 Construction Graphics.

CMCET 333. Theory of Structures. 3 hours. (2 hours lecture, 2 hours laboratory). Fundamentals of static design, forces acting on structural systems and components, stresses in members. Not open to Engineering Technology majors. Prerequisites: MATH 122 Plane Trigonometry, MATH 126 Pre-Calculus, or MATH 150 Calculus I.

CMCET 334. Methods of Construction-Sitework and Steel. 3 hours. (3 lecture hours; laboratory experience required). Steel construction, site preparation, and labor equipment. Materials, methods, constructability, drawings, specifications and software. Estimation of labor, material, and equipment. Prerequisite: CMCET 133 Construction Graphics, CMCET 234 The Construction Industry and "C" or better in MATH 113 College Algebra or equivalent.

CMCET 335. Methods of Construction-Concrete and Masonry. 3 hours. (3 hours lecture; laboratory experience required). Concrete and masonry construction materials, methods, constructability, equipment, drawings, specifications and software. Concrete mix design, formwork design. Masonry design fundamentals. Estimation of labor, material, and equipment. Prerequisite: CMCET 133 Construction Graphics, CMCET 234 The Construction Industry and "C" or better in MATH 113 College Algebra or equivalent.

CMCET 336. Residential Land Development. 3 hours. (2 hours lecture; 2 hours laboratory). Development of raw land into residential lots and homes. Basics of residential marketing, land planning concepts, and residential design standards. Prerequisite: CMCET 133 Construction Graphics.

CMCET 337. Construction Materials Testing and Inspection. 2 hours. (1 hour lecture, 2 hours laboratory). Construction materials testing and inspection procedures in laboratory and field situations using standard testing equipment, methods and field inspection techniques per ASTM and ACI standards. Laboratory reports, computer analysis, data collection and simulated field inspections. ACI Concrete Field Testing Technician - Grade I examination required. Prerequisite or Corequisite: CMCET 335 Methods of Construction-Concrete and Masonry.


CMCET 350. Mechanical Systems (Plumbing). 2 hours. Design, installation and operation of plumbing system materials and equipment in residential and commercial construction. Includes design projects, blueprint reading and quantification of labor and material units for productivity and cost estimation. Prerequisites: CMCET 133 Construction Graphics, and a "C" or better in MATH 113 College Algebra or equivalent.

CMCET 400. Cooperative Education (1-3). 3-6 hours. A cooperative college-industry, college-business, or college-government work experience. The student is interviewed and employed by an industrial, business or government organization, then a work program is outlined. Supervision of the work experience is conducted by the employer and the college coordinator. May be repeated if subject matter is different. Written permission of department required. Offered on a Pass-Fail basis only.

CMCET 401. Investigations in Technology (1-4). 1-4 hours. Special studies in technology to provide for the individual requirements of the student desiring supplemental work in the student’s field of special interest. Prerequisite: Written permission of department. May be repeated if subject matter is different.

CMCET 431. Structural Loads. 1 hour. (1 hour lecture). Code requirements for structural loading, vertical loads and lateral forces commonly used in construction. Prerequisite or Corequisite: MECET 220 Statics or equivalent.

CMCET 434. Civil Construction. 3 hours. (3 lecture hours). Terminology, processes, equipment, materials, construction, and testing in the construction of water/waste water plants, utilities, streets/highways/roads, and bridges. 3D computer modeling applications. Prerequisites: CMCET 133 Construction Graphics, and a "C" or better in MATH 113 College Algebra or equivalent.

CMCET 435. Residential Construction Methods and Management. 3 hours. (1 hour lecture, 4 hours laboratory). Residential construction lifecycle including planning, execution, monitoring, controlling, closing and service. Methods of residential construction including energy efficiency, wood and light-gauge steel frame construction, insulated concrete forms, systems-built and panelized construction, engineered materials. Includes NAHB Residential Construction Superintendent Designation. Prerequisite: CMCET 338 Residential Codes/Inspection.

CMCET 530. Construction Cost Management. 3 hours. (2 lecture hours, 2 hours laboratory). Study of cost management issues for the non-financial manager relevant to the construction professional, including the interpretation of financial statements, financial ratios, applications of engineering economics, managing job costs and profits, cash flow analysis, making construction financial decisions, bonding, and job cost information systems. Case studies and computerized applications to solve construction related financial decisions. Prerequisite: ACCTG 201 Financial Accounting and junior standing.

CMCET 536. Temporary Structures. 2 hours. (2 lecture hours). Design and construction of necessary temporary structures used in construction to facilitate building of permanent structures. Includes scaffolding, formwork, scaffolding, wall paper, drywall, stairways, etc. Computer applications and modeling. Prerequisites or Corequisites: MECET 423 Mechanics of Materials and CMCET 431 Structural Loads. May be taken for honors.

CMCET 537. Construction Surveying. 3 hours. (2 lecture hours, 2 hours laboratory). Theory, principles, practices of construction surveying applied to instrumentation, computations, and site layout. Use of modern equipment and computer applications. Prerequisite: CMCET 133 Construction Graphics and a "C" or better in MATH 122 Plane Trigonometry.

CMCET 631. Construction Estimating I. 3 hours. (2 hours lecture, 2 hours laboratory). Estimating techniques and methods pertaining to residential, commercial, industrial, and civil design fundamentals. Includes taking off, unit pricing, estimate development, drafting and interpretation, resource pricing, and bidding procedures. Computer applications. Prerequisites: CMCET 334 Methods of Construction-Sitework and Steel; and CMCET 335 Methods of Construction-Concrete and Masonry. May be taken for honors.

CMCET 632. Steel and Wood Structures. 3 hours. (3 hours lecture). Analysis and design of steel and wood structural components using current specifications, codes and practices reflecting practical construction procedures. Incorporates the use of computer analysis for design verification. Prerequisites or corequisites: MECET 423 Mechanics of Materials and CMCET 431 Structural Loads. May be taken for honors.

CMCET 633. Concrete Structures. 3 hours. (3 lecture hours). Analysis and design of concrete structural members using current specifications, codes and practices reflecting practical construction, formwork and scaffolding, written and oral reports. Incorporates the use of computer analysis for design verification. Prerequisites or corequisites: MECET 423 Mechanics of Materials and CMCET 431 Structural Loads. May be taken for honors.

CMCET 634. Construction Management. 3 hours. (2 hours lecture, 2 hours laboratory). Construction management principles, practices and decisions relative to project and construction site management, project organization, project planning, scheduling, control, safety, resource allocation and quality control. Case studies and computer applications of planning/scheduling. Introduction of 4D modeling concepts. Prerequisites or corequisites: CMCET 631 Construction Estimating I. May be taken for honors.

CMCET 635. Contract Administration. 3 hours. (2 hours lecture, 2 hours laboratory). Administration of construction contracts, contract documents, contract law, contract negotiation, taxes, insurance and bonds, labor relations and case studies. Prerequisite: CMCET 631 Construction Estimating I and senior standing. May be taken for honors.

CMCET 637. Construction Surveying II. 3 hours. (1 hour lecture, 4 hours laboratory). Theory and supervised field practice of engineering and construction projects, utilizing modern surveying equipment, 3D software, advanced COGO surveying principles, legal implications and computer applications. Prerequisite: CMCET 537 Construction Surveying I.


CMCET 640. BIM Management. 3 hours. (1 hour lecture, 4 hours laboratory). Application of BIM software from a management perspective including clash detection, 4D/5D, simulation, shop drawing development, project planning and document management and control. Prerequisites: CMCET 340 Building Information Modeling (BIM) and GT 334 3D Graphics.

CMCET 650. Civil Virtual Design and Construction. 3 hours. (2 hours lecture, 2 hours laboratory). Functional knowledge of civil construction based CAD, BIM, simulation and collaborative software. Pre-requisite: CMCET 133 Construction Graphics, CMCET 434 Civil Construction, CMCET 537 Construction Surveying I.

CMCET 651. Heavy/Highway/Bridge Construction. 3 hours. (2 hours lecture, 2 hours laboratory). Functional knowledge of materials, methods, scheduling, estimating and management associated with highway, street, bridge, dam and other heavy construction. Prerequisite: CMCET 434 Civil Construction.

CMCET 652. Utility Construction. 3 hours. (2 hours lecture, 2 hours laboratory). Functional knowledge of materials, methods, scheduling, estimating and management associated with utility based construction. Prerequisite: CMCET 434 Civil Construction.

CMCET 690. Professional Construction Certification Seminar. 1 hours. (2 hours laboratory). Preparation for professional certification in the construction industry. Registration for and participation in the American Institute of Constructors CQE Level I (Associate Constructor) examination is required during the semester of enrollment. Meets USGBC requirements for Green Associate exam preparation. SWPPP topics. Prerequisite: Senior standing. Permission of instructor is required.

CMCET 691. Senior Project. 3 hours. (2 hours lecture, 2 hours laboratory). Capstone experience utilizing construction design, methods, cost analysis, specifications, contracts and organization in a construction project. The course employs computer applications for design, drafting, and control. Prerequisite: Senior standing. Permission of instructor is required.

CMCET 795. Special Topics in CMCET (______). 1-3 hours. Selected topics in construction engineering technology. Regularly scheduled classroom and laboratory study pertaining to a distinct body of technical knowledge. May be repeated if subject matter is different. Written permission of department is required.

CMCET 832. Land Development. 3 hours. Development of land for commercialization/improvement. Introduction to land development design, governmental planning and regulations, project approvals, site analysis, environmental considerations, development patterns and principles, site development, utility integration, property surveying and law. Use of case studies.

CMCET 833. Estimating and Bidding Strategy. 3 hours. (3 hours lecture). Strategy of contracting to maximize profit through overhead distribution, break-even analysis, probability and statistical technique, a realistic risk and uncertainty objective, and bid analysis both in theory and in practice. Prerequisites: CMCET 631 Construction Estimating I and CMCET 639 Construction Estimating II or equivalent, graduate standing.

CMCET 834. Advanced Construction Management. 3 hours. (3 hours lecture). Existing and emerging systems for designing, planning, and construction of projects. Changing roles, relationships, and responsibilities of the parties involved. Time-cost relationships for various construction operations.

CMCET 835. Advanced Construction Structures. 3 hours. (3 hours lecture). Methods of analysis for framed structures, trusses, rigid frames, statically indeterminate structures, composite materials. Two-dimensional and three-dimensional finite element analysis.

CMCET 836. Virtual Design and Construction (VDC). 3 hours. (3 hours lecture). Utilization of 3D/4D/5D construction software applications to develop construction models, evaluate costs, develop schedules and predict better project outcomes. Course content will include the use of Revit, Navisworks, Civil 3D, DProfiler and other current software used in the development of virtual construction models. Prerequisite or co-requisite: CMCET 833 Estimating and Bidding Strategy or CMCET 834 Advanced Construction Management.

CMCET 895. Advanced Topics in Engineering Technology (______). 1-6 hours. Selected topics in construction engineering technology. Study pertains to a distinct body of technical knowledge. May be repeated if subject matter is different. Research paper and presentation to CMCET Faculty required. Written permission of instructor is required.

Communication

COMM 105. Performance Appreciation. 3 hours. Principles, techniques, and criteria for viewing, enjoying, and evaluating the performing arts, including live theatre performance, film, video/audio tape, and dance.

COMM 199. Introduction to Communication Careers. 1 hour. An examination of the numerous employment opportunities available in the field of communication, including an overview of communication issues and history. To be graded pass/fail.

COMM 200. Introduction to Mass Communication. 3 hours. A general introduction to print, electronic cinema, public relations, advertising, and other forms of mass communication in their past, present, and future forms. An examination of the role of the media in society.

COMM 205. Performance Studies. 3 hours. Introduction to the field of performance studies. Content includes the study of theories of human play, forms of social and artistic role play, and the origins of human performance.

COMM 207. Speech Communication. 3 hours. An elementary course designed to give the student an understanding of the requirements for effective speaking and listening and an opportunity to increase skills in each. Both semesters. Prerequisite: ENGL 101 or 103 English Composition or equivalent, or permission of instructor.

COMM 210. Activity. 1 hour. Participation in an approved departmental activity. Permission of instructor. May be repeated for a maximum of 3 hours. To be graded Pass/Fail.

COMM 225. Reporting. 3 hours. Theory and practice in the gathering, writing, and interpretation of news for mass media.

COMM 230. Principles of Advertising. 3 hours. Basic principles of advertising including theory and production of advertisements for media. Historic development of advertising industry and impact of advertising on society.

COMM 254. Acting Studies. 3 hours. The fundamentals of acting technique through the creative approach. Emphasis on motivation, characterization, and believability. Participation in one or two-act play and outside crew work required. Spring.

COMM 274. Introduction to Audio and Video Production. 3 hours. Basic audio and video techniques, as well as writing and performance for electronic media. Prerequisites: COMM 200 Introduction to Mass Communication (or may be taken concurrently) or with permission of instructor.

COMM 276. Photojournalism I. 3 hours. Basic camera and darkroom techniques; elements of lighting and composition. Use of photography in communications and reporting. Caption writing, editing, picture stories.

COMM 277. Introduction to Public Relations. 3 hours. Introduction to basic public relations skills and theories, including an overview of public relations functions and history.

COMM 295. Theatre History (______). 3 hours. Examination and analysis of representative dramatic texts, performance styles, audience reception, theatre architecture, and the societal/cultural impact of specified eras in theatre history. Original source documents (including plays), past and present histories, and past and present criticism will be utilized as key methods of inquiry and analysis. May be repeated for different eras.

COMM 307. Advanced Speech Communication. 3 hours. Relevant communication theory as applied to various communication formats including public speaking and small groups. Prerequisite: COMM 207 Speech Communication or permission of instructor.

COMM 390. Forensic Practices (______). 1-3 hours. Investigate into the area of competitive speech (debate and individual events). Focus is placed on Debate Theory, Field Experience assisting a coach of a competitive speech team (grades 6-12), or Competition at the collegiate level. May be repeated for a total of six hours. Prerequisite: Permission of instructor.

COMM 330. Advertising Copywriting. 3 hours. Basic elements of advertising copywriting including writing for the various media formats. Message structure, strategy, and development. Introduction to advertising research. Prerequisite: COMM 230 Principles of Advertising or permission of instructor.

COMM 335. Feature Writing. 3 hours. Examination, analysis and writing of feature stories, special articles and process/problem centered stories used by newspapers, magazines and other media which inform, entertain or investigate problems. Prerequisite: COMM 225 Reporting or permission of instructor. May be taken for honors.

COMM 340. Publications Practice. 3 hours. Practical experience as a contributor to the Collegio or Kanza staffs. Receiving reporting, writing, photojournalism, design and/or editing assignments and completing them under deadline for potential publication. Prerequisite: COMM 225 Reporting and/or COMM 276 Photojournalism I.

COMM 350. Editing. 3 hours. Theory and practice in copy editing and display of the news, primarily in newspapers and the press services. Prerequisite: COMM 225 Reporting.

COMM 363. Technical Production I. 3 hours. Introduction to the technical elements of theatre, film, open television and dance with emphasis on stage craft construction techniques and basics of lighting and sound production. Extensive hands on experience. Includes laboratory.

COMM 367. Oral Interpretation of Literature. 3 hours. Performance based analysis of various forms of literature (traditional and nontraditional) including prose, poetry, and drama. Develops interpretation into dynamic vocal and physical presentation. Prerequisite: COMM 207 Speech Communication or permission of instructor.
COMM 374. Broadcast Writing. 3 hours. The principles and practice of Aural Writing. Students will be asked to write television and radio scripts for news, commercials and promotions. Prerequisites: COMM 200 Introduction to Mass Communication and COMM 274 Introduction to Audio/Video Production or permission of instructor.

COMM 375. Broadcast Announcing. 3 hours. The fundamentals of radio and television announcing, including appropriate techniques for use of microphone, voice, and copy. Prerequisite: COMM 274 Introduction to Audio and Video Production.

COMM 390. Sports Broadcasting I. 3 hours. Introduction to the study and practice of broadcasting live sporting events. Students will learn the art of shooting and directing sporting events by participating in a weekly sports broadcast. Prerequisites: COMM 274 Introduction to Audio and Video Production, may be taken concurrently or by permission of instructor.

COMM 390. Communication Career Development. 1 hour. Development and application of skills needed to research and acquire communication career opportunities through internship and experiential learning experiences. Prerequisites: Sophomore standing in the Communication department or permission of instructor.

COMM 405. Drama Studies [___]. 3 hours. Comparative study of selected themes in dramatic literature within the context of culture, authorship and genre. May be taken for honors. May be repeated with different content for a maximum of six hours.

COMM 410. Activity. 1-3 hours. Participation in an approved department activity. Permission of instructor. May be repeated for a maximum of 3 hours. To be graded Pass/Fail.

COMM 415. Advanced Reporting. 3 hours. Challenges and techniques in reporting in-depth and issue stories, including information gathering, covering beats, and journalists' legal rights and responsibilities. Prerequisite: COMM 350 Editing or permission of instructor. May be taken for honors.

COMM 425. Studies in Scenic Arts [___]. 3 hours. Advanced skills training in technical theatre which may include scene painting, project execution using specialty materials (e.g., foam, steel, plastics), welding, carving, electrical work with lighting and/or sound. Includes laboratory. Prerequisite: COMM 363 Technical Production I.

COMM 435. Photojournalism II. 3 hours. Advanced camera techniques. Introduction to digital darkroom and photography; feature; sports; news; studio assignments; editing and layout for photo stories and multi-media narrative presentations. Work is designed for use in student or professional publications. Prerequisite: COMM 276 Photojournalism I or permission of instructor.

COMM 440. Topics in Theatre [___]. 1-3 hours. Special investigations in selected areas of theatre arts. May be repeated when subject matter is different for a maximum of 6 hours.

COMM 441. Topics in Communication [___]. 1-3 hours. Special investigations in the field of communication. May be repeated when subject matter is different, for a maximum of 6 hours. Prerequisite: Permission of instructor.

COMM 450. Small Group Communication. 3 hours. Analysis of communication behavior in the small group, with emphasis on small group theory, research, and application to specific forms of group discussion. May be taken for honors.

COMM 460. Project in Theatre [___]. 1-3 hours. Study and practical theatrical experience in a selected aspect of theatre. May be repeated if subject matter is different. Prerequisite: Permission of instructor.

COMM 463. Technical Production II. 3 hours. Basic construction and execution techniques of costumes, makeup, properties, and special effects for theatre, film, opera, television and/or dance. Emphasis on historical styles, pattern making, and working with a variety of materials. Extensive hands-on experience. Includes laboratory.

COMM 474. Promotional Video. 3 hours. Principles and practices of conceiving, planning, and producing persuasive video programs. Advanced theory and techniques for use in advertising and public relations. Covers scriptwriting, studio and field production, computer editing, and working with clients. Prerequisites: COMM 274 Introduction to Audio and Video Production, COMM 374 Broadcast Writing or permission of instructor.

COMM 475. Audio Production. 3 hours. Study and practice in the techniques of audio production. Emphasis on new audio technologies. Prerequisite: COMM 274 Introduction to Audio and Video Production. May be taken for honors.

COMM 479. Techniques for Teaching Speech and Theatre. 3 hours. Techniques, methods, and course content used in teaching speech and theatre in the secondary school. To be taken before the professional semester. The student is strongly encouraged to take SPED 510 Overview of Special Education and EDUC 520 Methods and Materials for Academic Literacy prior to enrolling in COMM 479. Prerequisite: Admission to teacher education and PSYCH 357 Educational Psychology.

COMM 480. Exploration in Communication [___]. 3 hours. Exploration of topics including current trends and emphasis-specific research, from a range of disciplines within communication. Specific content may include: broadcasting, journalism, theatre, film, and public relations. May be repeated for a maximum of six hours when content is different.

COMM 490. Sports Broadcasting II. 3 hours. Advanced study and practice of broadcasting live sporting events. Students will learn advanced skills in the art of sports production, including announcing and producing by participating in a weekly sports broadcast. Prerequisite: COMM 390 Sports Broadcasting I or permission of instructor.

COMM 511. School Publications. 3 hours. Philosophy and principles of advising and producing student newspapers, yearbooks, and magazines, along with supervising and operating photography staffs and darkrooms. Prerequisite: COMM 200 Introduction to Mass Communication or permission of instructor.

COMM 537. Integrated Electronic Communication. 3 hours. Creation, manipulation, and use of visual imaging, infographics, desk-top publishing and electronic presentation software to create newsletters, brochures, new and photographs, and theory of publication design and information flow as related to communication. May be taken for honors.

COMM 544. Stage Direction. 3 hours. The fundamentals of stage direction. Emphasis on script analysis, proper blocking, preparation of the script for the actors, technicians and managers. Provides experience in directing a one-act play. Prerequisites: COMM 254 Acting Studies and COMM 363 Technical Production I or permission of instructor. May be taken for honors.

COMM 575. Television Production. 3 hours. The study and practice of fundamental skills in news, sports and feature reporting. Students will also be involved in weekly cable programs, learning all elements of studio television production. Prerequisites: COMM 274 Introduction to Audio and Video Production and COMM 374 Broadcast Writing or permission of instructor. May be taken for honors.

COMM 576. Writing for Public Relations. 3 hours. Study, analysis and practice in writing news, publicity and feature stories for public relations media or public relations use by the media. May be taken for honors.

COMM 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Dual enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

COMM 590. Sports, Media and Society. 3 hours. Study and analysis of sports media's role in our society. Issues such as gender equality, race, nationalism, history, ethics, law, technological/social effects and current sports media research will be discussed. Prerequisites: COMM 200 Introduction to Mass Communication or permission of instructor.

COMM 601. Intercultural Communication. 3 hours. Exploration of cultural foundations of values, perceptions and behaviors as they relate to communication across cultures. May be taken for honors.

COMM 623. History of Mass Communication. 3 hours. The history of newspapers, radio, television and magazines, and the freedom of expression they represent in the United States from the seventeenth century to the present. Prerequisite: COMM 200 Introduction to Mass Communication or permission of instructor. May be taken for honors.

COMM 625. Advanced Performance [___]. 3 hours. Advanced study of various theatre performance formats. Emphasis may include acting and/or directing. Laboratory work for groups and individuals. May be repeated if content is different. Prerequisite: COMM 254 Acting Studies and COMM 544 Stage Direction, or permission of instructor. May be taken for honors.

COMM 626. Law of Mass Communication. 3 hours. Law cases and the principles they have established for the conduct of mass communications in the United States. Prerequisite: COMM 200 Introduction to Mass Communication, junior standing, or permission of instructor. May be taken for honors.

COMM 629. Theories of Human Communication. 3 hours. Study of contemporary theoretical approaches to the multi-disciplinary study of human communication. Concentration on the application of theories to professional communication career situations. May be taken for honors.

COMM 637. Online Publishing. 3 hours. Theory, writing and design for World Wide Web publication. Introduction to basic HTML; use of Web publishing software; writing and designing for Web publication.

COMM 638. Professional Photojournalism/Picture Editing. 3 hours. Professional photo techniques, principles and practices expected of photographers in media environments and media-related organizations, theory and practice of picture editing, photo illustrations, photo stories, multi-media presentations and developing a portfolio. Prerequisite: COMM 435 Photojournalism II or permission of instructor.

COMM 640. Topics in Communication [___]. 1-3 hours. Special investigation in the field of speech and communication. May be repeated when subject matter is different for a maximum of 6 hours. Prerequisite: Permission of instructor.

COMM 642. Documentary Photojournalism/Electronic Imaging. 3 hours. Documentary and in-depth photojournalism. Advanced techniques, practice and theory of digital photography for professional news organizations and media-related organizations. Prerequisite: COMM 638 Professional Photojournalism/Picture Editing or permission of instructor.
COMM 660. Project in Theatre (____). 3 hours. Advanced study and practical theatrical experience in a selected aspect of theatre. Prerequisite: Permission of instructor. May be repeated if subject matter is different.

COMM 663. Design Studies for Performance (____). 3 hours. Theoretical and practical experience in design for a variety of media with an emphasis in theatre, film and television. Topics may include scenic lighting, properties, and costume design as well as a special effect, art direction, rendering, and modeling. May be repeated for a maximum of six hours when content is different.

COMM 674. Media Buying and Selling. 3 hours. Study and analysis of commercial media buying and selling techniques, including application of various computer software programs to media decision making, media research techniques and practice in media buying and selling techniques. Prerequisite: COMM 230 Principles of Advertising or permission of instructor. May be taken for honors.

COMM 690. Internship in Applied Communication (____). 1-3 hours. A training program providing opportunity to work with professional practitioners in such fields as broadcasting, public relations, organizational communication or theatre. Credit allowed will depend on the nature of the internship assignment. May be repeated for a maximum of 4 hours. Prerequisite: Permission of the advisor.

COMM 699. Communication Careers in Society. 1 hour. Assessment of senior communication majors for preparation to enter the communication fields. Examination of ethical, technological and social implications for the communication professional environment. Submission of an assessment portfolio is required. Prerequisite: senior standing in Communication or permission of instructor.

COMM 702. Mass Media Management. 3 hours. Analysis of electronic print and persuasive media, marketing and promotion. Study of management principles and theories as well as case studies. Analysis of legal, social, and psychological elements of managing media organizations. May be taken for honors.

COMM 703. Public Relations/Advertising Production. 3 hours. Theory and principles of media production. Public relations and production of media advertising. Prerequisites: COMM 230 Principles of Advertising or COMM 274 Introduction to Audio and Video Production and COMM 277 Introduction to Public Relations or permission of instructor.

COMM 708. Problems in Teaching the Basic Speech Course. 1 hour. Problems of teaching the college course in basic speech, with particular emphasis on the evaluation of student speeches. Prerequisite: Permission of instructor. May be repeated for a total of 4 hours.

COMM 715. Documentary Filmmaking. 3 hours. Production of documentary films. Includes critiques of documentary styles and techniques and theoretical issues. Finding and developing a treatment, preparing and editing an effective news, social science, or nature documentary. Covers film theory, aesthetics and professional distribution. Prerequisites: COMM 274 Introduction to Audio Video Production, COMM 374 Broadcasting Writing or permission of instructor.

COMM 717. Research Procedures in Communication. 3 hours. Introduction to issues in data collection research design, and data analysis, with emphasis on laboratory and field settings. Prerequisite: COMM 629 Theories of Human Communication (recommended). May be taken for honors.

COMM 721. Philosophy and Ethics in Mass Communication. 3 hours. The application of selected principles of philosophy and ethics to the practices of the mass media. Prerequisite: COMM 200 Introduction to Mass Communication.

COMM 724. Editorial Writing. 3 hours. A comprehensive approach to journalistic opinion writing, including editorials, personal opinion columns and reviews. Prerequisite: COMM 225 Reporting or permission of instructor.

COMM 726. Media Analysis and Criticism (____). 3 hours. Various levels of media analysis and criticism, including production analysis, sociological, critical and ideological analysis of media form and content. Prerequisites: COMM 200 Introduction to Mass Communication or permission of instructor. May be repeated when content is different. May be taken for honors.

COMM 730. Interpersonal Communication. 3 hours. Advanced survey course in interpersonal communication theory. Application of communication theory to professional and interpersonal situations. May be taken for honors.

COMM 731. Advertising Campaigns. 3 hours. Analysis of theorctic basis for long range advertising campaigns including formative and evaluative research. Historical development of various advertising formats. Prerequisite: COMM 230 Principles of Advertising, or permission of instructor. May be taken for honors.

COMM 733. Television Producing and Directing. 3 hours. Varied technical practice, production, planning, producing, directing, and editing. Prerequisites: COMM 274 Introduction to Audio/Video Production and COMM 575 Television Production or permission of instructor. May be repeated if content is different.

COMM 740. Topics in Communication (____). 1-3 hours. Special investigation in the field of speech communication. May be repeated when subject matter is different for a maximum of 6 hours. Prerequisite: Permission of instructor.

COMM 755. Organizational Communication. 3 hours. Structure and function of communication in organizations, with emphasis on concepts and theoretic principles needed for effective management of organizational communication processes. Review of specific techniques designed to facilitate effective organizational management. Prerequisite: COMM 629 Theories of Human Communication or permission of instructor. May be taken for honors.

COMM 765. Strategic Planning for Communication Campaigns. 3 hours. Application of communication theory to a variety of communication campaigns. Emphasis on the use of formative research in the development stage and evaluative research in the evaluation stage of the campaign. Prerequisite: COMM 717 Research Procedures in Communication. May be taken for honors.

COMM 775. Case Studies in Public Relations. 3 hours. Public relations problems of business and civic organizations. Analysis of actual and proposed solutions. Prerequisite: COMM 277 Introduction to Public Relations and COMM 629 Theories of Human Communication or permission of instructor. May be taken for honors.

COMM 785. International Communication. 3 hours. An examination of the role of communications in national development, and of the flow of news and information, entertainment, advertising, and other cultural products.

COMM 795. Issues in Communication (____). 3 hours. Investigation of specialized issues in communication. Topics may change depending upon the need for specific content as determined by the Department of Communication. May be repeated if content is different. May be taken for honors by undergraduates.

COMM 815. Introduction to Graduate Study. 3 hours. Acquaints the student with the possibilities for research in the communication field and provides some experience in research and professional writing.

COMM 840. Topics in Communication (____). 1-3 hours. Special investigation in the field of speech communication. May be repeated when subject matter is different for a maximum of 6 hours. Prerequisite: Permission of instructor.

COMM 845. Project in Theatre (____). 3 hours. Advanced study and practical theatrical experience in a selected aspect of theatre. May be repeated if subject matter is different. Prerequisite: Permission of instructor.

COMM 865. Seminar in Applied Communication (____). 3 hours. The intensive investigation of a selected aspect of applied communication. May be repeated if subject matter is different.

COMM 870. Seminar in Mass Communication Theory. 3 hours. An examination of the focus of mass communication theory and research, from early theories to current perspectives.

COMM 871. Seminar in Human Communication Theory. 3 hours. An investigation of the foundations of human communication theory and the relationship to contemporary, theoretical ideas and research outcomes. Includes communication contexts, research methods, and professional applications.

COMM 873. Seminar in Theatre (____). 3 hours. The intensive investigation of a selected aspect of theatre. May be repeated if subject matter is different.

COMM 880. Seminar in Public Communication (____). 3 hours. Intensive investigation of selected aspects of public communication such as the study of social movements, or contemporary political communication events. May be repeated if subject matter is different.

COMM 883. Readings in Theatre Art (____). 1-3 hours. Directed readings and special investigations in selected areas of theatre arts. May be repeated when subject matter is different.

COMM 884. Readings in Communication (____). 1-3 hours. Directed readings and special investigations in selected areas of communication. May be repeated when subject matter is different.

COMM 890. Research and Thesis. 1-6 hours. Provides experience in a high quality of research and in the organization and writing of a graduate thesis. May be repeated for a maximum of 6 hours.

COMM 891. Research Problem. 1-6 hours. May be repeated for a maximum of 6 hours.

Economics

ECON 191. Issues in Today's Economy. 3 hours. A practical guide to the economy. Emphasis on important issues such as inflation, unemployment, national defense, taxes and deficits, race and sex discrimination, pollution, welfare, and international problems. Designed for non-business students; cannot be taken for credit by students majoring or minoring in business. Not open to students with credit or concurrent enrollment in ECON 200 Introduction to Microeconomics or above.

ECON 200. Introduction to Microeconomics. 3 hours. Economic theory of households and firms. Determination of equilibrium product and factor prices, allocation of resources and distribution of income, with applications to international trade. Prerequisite: sophomore standing.
ECON 201. Introduction to Macroeconomics. 3 hours. Basic concepts of economics including the market mechanism, national income accounting and determination, stabilization policies and the problems of economic growth and development. If a student intends to take both ECON 200 Introduction to Microeconomics and ECON 201 Introduction to Macroeconomics, then it is recommended, but not required, that the student take ECON 200 Introduction to Microeconomics before ECON 201 Introduction to Macroeconomics. Prerequisite: sophomore standing.

ECON 330. Money and Banking. 3 hours. The banking system of the United States with special emphasis upon the Federal Reserve System. Prerequisites: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics, and junior standing.

ECON 418. Intermediate Microeconomics. 3 hours. Consumption, production, pricing, resource allocation, and distribution. Prerequisites: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics, MGMKT 310 Basic Quantitative Business Methods, a "C" in MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus, and 55 hours completed. May be taken for honors.

ECON 419. Intermediate Macroeconomics. 3 hours. Determination of national income, employment and the price level; policies to reduce unemployment and/or inflation. Prerequisites: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics, and junior standing. May be taken for honors.

ECON 465. Collective Bargaining. 3 hours. Collective bargaining philosophy; bargaining strategies; formulation and administration of labor-management contracts; impact of collective bargaining on the firm, industry, and economy. May be taken for honors. Prerequisites: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics, and junior standing.

ECON 486. Labor Economics. 3 hours. Labor market supply and demand; labor-market institutions; and labor-market policies: full employment, anti-inflation, income maintenance, and manpower. Prerequisite: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics, and junior standing. May be taken for honors.

ECON 485. Industrial Organization. 3 hours. An examination of structure, conduct and performance of American industry using economic techniques of analysis. The course will also focus on history of antitrust Laws. Prerequisites: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics and junior standing.

ECON 640. International Trade. 3 hours. Theory of trade, payment mechanisms, exchange and trade controls, and international cooperation. Prerequisites: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics, and junior standing. May be taken for honors.

ECON 650. Econometrics. 3 hours. Introduction to fundamentals of statistical inference, estimation and tests of hypothesis; regression and analysis of variance; applications using econometrics software. Prerequisites: ECON 200 Introduction to Microeconomics, ECON 201 Introduction to Macroeconomics, MGMKT 320 Business Statistics, and 55 hours completed.

ECON 665. Seminar in Applied Economics. 3 hours. This a capstone course in economic–one which crowns or completes the course work for the major. Emphasis is placed on the integration of the tools and concepts of microeconomics, macroeconomics, monetary economics, and international economics. Prerequisites: ECON 418 Intermediate Microeconomics, ECON 419 Intermediate Macroeconomics, ECON 650 Econometrics, and 55 hours completed. May be taken for honors.

ECON 693. Topics in Economics (____). 1-3 hours. Study of a specific topic to economics. Specific subject area will be identified each time the course is offered. May be repeated if topic is different. Prerequisite: Permission of instructor.

ECON 694. Internship in Economics. 1-6 hours. Relevant work experience in private or public institutions. The work experience must be approved by the instructor. May be repeated for a maximum of six hours. Prerequisite: Permission of the instructor required.


ECON 827. Seminar in Economics (____). 3 hours. Comprehensive reading and research in various fields of economics. May be repeated if subject matter is different. Prerequisites: ECON 418 Intermediate Microeconomics and ECON 419 Intermediate Macroeconomics or ECON 805 Economic Analysis.

Educational Technology

EDTH 330. Technology for the Classroom. 3 hours. Prepares the teacher candidate to effectively integrate technology into the classroom. The use of educational technologies and the internet to support learning objectives, deliver instruction, and manage evaluation and assessment processes. Students will demonstrate the ability to use a variety of technologies and productivity tools to design and produce instructional materials. Basic computer skills expected. May be taken for honors.

EDTH 551. Instructional Technology for Educators. 3 hours. This course will be team-taught and integrated with TE 551 Integrated Technology for Educators. This course will focus on advanced instructional technology concepts and equipment which will be reinforced by thematic presentations and projects coordinated with area schools and teachers. Students will utilize various technology resources including computers, digital imaging, multimedia presentation and desktop publishing software, video editing, SmartBoards, projection systems, and interactive distance learning systems. Prerequisite: EDTH 330 Technology for the Classroom or permission of instructor.

EDTH 731. Digital Portfolio. 1 hours. Collect and display material electronically, including mastery of web page development software. Creation of an academic portfolio will be created.

EDTH 732. Topics in Educational Technology (____). 1-3 hours. Study of a specific area of educational technology through readings, reports, discussions, and practical experiences. May be repeated if subject matter is different. No more than 6 hours may be applied to the educational technology master's degree.

EDTH 733. Professional Development. 1 hours. Drawing on literature from many fields, this course will focus on exploration of issues related to professional development, such as career planning, continuing education, mentoring and reflective practice.

EDTH 734. Infrastructure Networking. 1 hours. Introduces students to the design, installation, operation, and management of networked systems from local area networks (LANs) to the Internet.

EDTH 735. Information Retrieval and Transfer. 3 hours. The structure of information generation, organization, transfer and retrieval. Study of evolving technology and traditional sources to meet the information needs of the user.

EDTH 737. Cataloging and Classification. 3 hours. Principles in the development, theory, and practice of the organization and retrieval of information in various formats. Includes automated and manual indexing systems, classification, and cataloging. Access to information is emphasized with development of curriculum materials and utilization of resources.

EDTH 805. Design and Production of Instructional Materials. 3 hours. Emphasizes the basic techniques of producing mediated instruction appropriate for educational settings. Experience with developing materials appropriate for both individual and whole-class instruction will be gained.

EDTH 817. Technology Integration Specialist. 3 hours. This course is designed to introduce students to the development and implementation of technology infrastructures, procedures, and policies in PK-12 schools. In addition, students will obtain skills in the area of leadership and vision as it relates to educational technology. Prerequisites: EDTH 735 Information Retrieval and Transfer and EDTH 868 Educational Technology Applications or permission of instructor.

EDTH 818. Trends and Issues in Educational Technology. 3 hours. This course is designed to introduce students to current trends and issues in educational technology as it relates to assessment and evaluation, and social, ethical, legal, and human issues. Prerequisites: EDTH 735 Information Retrieval and Transfer and EDTH 868 Educational Technology Applications or permission of instructor.

EDTH 819. Practicum in Educational Technology. 1-6 hours. Supervised experience in selecting, classifying, designing, producing and managing instructional media and materials. Prerequisite: Permission of instructor.

EDTH 825. Administration of Instructional Systems. 3 hours. Management techniques and administration of programs including goals, budgeting, staffing, operations, networking, planning, and evaluation for instructional systems in their environments, i.e. schools and higher education.

EDTH 838. Educational Technology Curriculum. 3 hours. Focuses on information literacy, learning theories and curriculum designs that enable the integration of problem-solving models across the curriculum. Negotiating instructional partnerships with classroom teachers-colleagues is an essential part of this process. Prerequisite: TCHL 834 Curriculum Development.

EDTH 868. Educational Technology Applications. 3 hours. Examines the basic principles, elements, and concepts of technology design. Also addresses the implementation and utilization of administrative tasks associated with the technology management environment.

Education (Early/Late Childhood and ECU)

EDUC 230. Introduction to Careers in Education. 1 hours. This course is designed to aid students in exploring the field of education as a profession. The course includes but is not limited to a survey of educational fields such as classroom teacher, counselor, and administrator. This course provides an overview of the Teacher Education program.
EDUC 252. Children's Literature. 3 hours. Reading, selection and presentation of a variety of children’s literature that reflects a variety of cultures. Values and criteria for choosing literature with children at various stages in their development, historical overview of changes in children’s literature, an in-depth look at various genres, and focusing on teaching children literature across the curriculum as well as evaluating literature-based reading programs will be covered. Prerequisite: EDUC 261 Explorations in Education with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPST).

EDUC 261. Explorations in Education. 3 hours. This course is designed as the “gateway” course into the Teacher Education program for students considering teaching as a profession. The course includes a survey of the historical, philosophical, and sociological foundations of education with an introductory emphasis given to common effective teaching methodologies. An overview of the Teacher Education program and knowledge base plus an introduction to the electronics portfolio are also included. Incorporated within this course is a supervised clinical experience to be conducted in area schools. Prerequisites: At least 30 credit hours completed, BSEd or BME degree declared, minimum 2.50 cumulative GPA or permission of Department Chair and Teacher Education office. NOTE: Course with the EDUC prefix must be taken concurrently with this course, if student has an ACT score of 24 or higher or has passed a Basic Skills Test (C-Base or PPST), but not prior to.

EDUC 307. Clinical Experience. 1 hour. Supervised clinical experience for students considering teaching as a profession, who have completed EDUC 261 Explorations in Education. Students who transfer in a course equivalent to EDUC 261 Explorations in Education are required to enroll in this course their first PSU semester in order to begin the Teacher Education Knowledge Base and electronic portfolio requirements. This course includes lesson planning and presentation of at least two whole class lessons. This field experience is required for students preparing to teach at the elementary level and is an elective for those preparing to teach at the secondary level. Prerequisite is EDUC 261 Explorations in Education or a transfer equivalent. Note: For transfer student’s courses with the EDUC prefix may be taken concurrently with this course, if student has an ACT score of 24 or higher or has passed a Basic Skills Test (C-Base or PPST) but not prior to. Graded on a Pass-Fail basis only.

EDUC 308. Specialized Clinical Experience. 1 hour. Supervised clinical experiences for students considering teaching as a profession who desire or need more extensive tutorial work in an area school and/or students who are preparing to teach at the elementary level and have completed only one supervised clinical experience. Course includes lesson planning and instructional skills and experiences. Prerequisite is EDUC 307 Clinical Experience. Graded on Pass-Fail basis only.

EDUC 320. Early Childhood Foundations and Curriculum. 3 hours. The full spectrum of early childhood education from kindergarten through third grade. History, curriculum, program applications, and current trends and issues. An overview of various early childhood curriculum models with special emphasis upon examining and designing curriculum materials that foster competence in children in all areas of the self: physical, emotional, social, aesthetic, and cognitive. Prerequisite: EDUC 261 Explorations in Education with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPST). May be taken for honors.

EDUC 321. Methods in Creative Expression. 3 hours. Course explores the role of creative expression including visual arts, music and movement, and creative drama in development of young children. The course addresses development, implementation, and evaluation of arts experiences developmentally appropriate for children in Pre-K through 3rd grade. Prerequisite or concurrent enrollment in EDUC 261 Explorations in Education.

EDUC 322. Early Literacy and Language Development. 2 hours. Course provides overview of emergent literacy, language development, and early literacy with emphasis upon developmentally appropriate strategies and assessments. It includes knowledge and skills relating to methods, materials, equipment, and techniques needed for teaching young children. Prerequisite or concurrent enrollment in EDUC 261 Explorations in Education.

EDUC 323. Literature for Young Children Birth-3rd. 3 hours. Course focus is upon reading, selecting, and presenting suitable literature for children Birth-3rd grade. Course will include history, tradition, appreciation of, and current trends in literature for young children. Prerequisite or concurrent enrollment in EDUC 261 Explorations in Education.

EDUC 345. Topics in (______). 1-3 hours. Intensive study of selected areas of education. May be repeated for credit when subject is different. No more than six hours may be taken to apply toward a degree without special permission from the Department of Curriculum and Instruction chairperson.

EDUC 361. Elementary School Mathematics. 3 hours. The content and organization of mathematics in the elementary school and the methods of teaching mathematics. Emphasizes effective instruction strategies. Prerequisites: MAT 204 Mathematics for Education I and MAT 304 Mathematics for Education II. Requires admission to the teacher education program. May be taken for honors.

EDUC 362. Elementary School Science. 3 hours. The content, methods and materials for teaching science in the elementary school. Emphasizes hands-on science teaching and effective instructional strategies. Prerequisites: Must have completed 60 hours including eight hours in science. Prerequisite: EDUC 261 Explorations in Education with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPST). May be taken for honors.

EDUC 363. Elementary School Social Studies. 3 hours. The objectives, materials, content, and methods of teaching social studies to all students based on the major constructs of the social science disciplines. Emphasizes learning styles, cooperative learning, multi-cultural education and integration across the curriculum. Requires admission to the Teacher Education Program. May be taken for honors.

EDUC 366. Primary Reading and Language Arts with Practicum. 4 hours. The foundation of age appropriate emergent literacy instruction for grades Birth-3rd grade. Includes the areas of reading, writing, speaking, listening, viewing, visually representing, handwriting, grammar and spelling. Provides hands-on teaching experiences at primary grade level through supervised, on-site practicum. Prerequisites for Early Childhood/Late Childhood K-6: EDUC 261 Explorations in Education and EDUC 252 Children’s Literature or concurrent enrollment with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPST). Prerequisites for ECU Program: Admission to Teacher Education and EDUC 261 Explorations in Education. EDUC 323 Literature for Young Children Birth-3rd is a prerequisite or concurrent enrollment for ECU Program. May be taken for honors.

EDUC 367. Intermediate Reading and Language Arts with Practicum. 4 hours. The foundation of literacy instruction for grades 3 through 6. Includes the areas of reading, writing, speaking, listening, viewing, visually representing, handwriting, grammar and spelling. Provides hands-on teaching experiences at intermediate grade level through supervised, on-site practicum. Prerequisites: Admission to Teacher Education; EDUC 366 Primary Reading and Language Arts with Practicum with grade of "C" or higher. May be taken for honors.

EDUC 368. Effective Classroom Management. 2 hours. Proactive classroom management concepts, strategies, and skills with management plan developed. Focus on handling problems when they occur and on strategies to decrease likelihood of repetition of classroom problems. Skills reviewed and applied in whole class settings during professional semester. Prerequisites: Admission to Teacher Education; EDUC 366 Primary Reading and Language Arts with Practicum with grade of "C" or higher.

EDUC 369. Science and Social Studies Methods K-3. 3 hours. Course focus is upon observation, content, methods, materials, and assessments for teaching science and social studies in K-third grade classrooms. Course emphasizes a hands-on, constructivist approach to teaching the science and social science curricula. Prerequisite: EDUC 261 Explorations in Education. May be taken for honors.

EDUC 440. Early Childhood Program Organization and Management. 3 hours. The course is designed to cover the organization of early childhood programs and the administrative requirements for maintaining ongoing programs. Topics include assessing community needs, licensing and certification requirements, budgets, food services, physical facilities, staffing, parent involvement, and other administrative considerations. Emphasis placed on developmentally appropriate practices in early childhood education (birth through age 8). Lecture and field site visits. Prerequisite: EDUC 261 Explorations in Education. May be taken for honors.

EDUC 455. Elementary and Middle Level Education. 2 hours. Emphasizes the broad and complex field of public education in a democracy, purposes and philosophies of education, instructional sources, professional competence required for successful teaching, various organizational plans for grouping children, and the relationship of the teacher to administration. Prerequisite: Admission to the professional semester.

EDUC 458. Methods and Curriculum. 3 hours. Methods and techniques of teaching. Emphasis on implementation and curriculum construction, trends, and problems. Prerequisite: Admission to the professional semester or admission to student teaching during summer session. May be taken for honors.

EDUC 462. Secondary and Middle Level Education. 2 hours. Purposes of the middle and secondary school; its pupils, programs, and possibilities. Prerequisite: Admission to the professional semester.

EDUC 464. Foundations of Measurement and Evaluation. 2 hours. Evaluation of pupil progress; educational tests and their uses; techniques of using evaluative information in working with students and parents. Prerequisite: Admission to the professional semester or admission to student teaching during summer session.

EDUC 475. Supervised Teaching in the Elementary School. 3 hours. Directed observation, participation and responsible classroom teaching; taken as part of the professional semester by students in the regular elementary sequence. Prerequisite: Admission to professional semester or admission to student teaching during summer session. Graded on Pass/Fail basis only.

EDUC 476. Supervised Teaching in the Elementary School. 5 hours. Directed observation, participation and responsible classroom teaching; taken as part of the professional semester by students in the regular elementary sequence. Prerequisite: Admission to professional semester or admission to student teaching during summer session. Graded on Pass/Fail basis only.

EDUC 477. Supervised Teaching in Foreign Languages in the Elementary Schools. 3 hours. Supervised teaching as part of the professional semester by students seeking to extend the elementary school certification to include foreign language instruction in elementary schools.
EDUC 480. Supervised Teaching in the Secondary School. 3 hours. Professional laboratory experiences under the supervision of the high school supervising teacher. Prerequisites: PSYCH 155 General Psychology, PSYCH 263 Developmental Psychology, PSYCH 357 Educational Psychology and admission to the professional semester. Graded on Pass/Fail basis only.

EDUC 482. Supervised Teaching in the Secondary School. 5 hours. Directed student teaching in the professional semester. Graded on Pass/Fail basis only.

EDUC 511. Methods and Materials in Middle Level Education. 3 hours. Designed for practicing and prospective teachers concerned with middle level education, including those who are seeking certification at that level. Emphasis on developing teaching competencies necessary to meet the physical, social, psychological, and intellectual needs of the early adolescent. Prerequisite: Junior standing, completion of EDUC 261 Explorations in Education with a grade of “C” or better, BSED or BME degree declared, minimum 2.5000 cumulative GPA, have taken the PPT or C-Base, or score of 24 on the ACT or 1040 SAT, or permission of Teacher Education office and instructor.

EDUC 520. Methods and Materials for Academic Literacy. 3 hours. The teacher candidate will acquire the knowledge, attitudes, and behaviors necessary to meet the literacy needs of students in their content classrooms. Addresses the need for literacy instruction at the middle and secondary levels; the process of reading to learn and the comprehension demands of subject matter classrooms; textbook evaluation; informal and formal assessment and evaluation of the students’ reading skills; the accommodation of individual differences; and types of reading programs at middle/secondary levels. May be taken for honors. Prerequisite: Junior standing, grade of "C" or better in EDUC 261 Explorations in Education, BSED or BME degree declared, minimum 2.5000 cumulative GPA, and admission to Teacher Education.

EDUC 551. Diversity in the Classroom. 3 hours. Provides an awareness of and sensitivity to the concepts and goals of multicultural/equity education with a focus on the special needs learner. Includes the diverse, historical tapestry of cultures that make up the US and the role language plays in the development of cultural identities. Prerequisite: EDUC 261 Explorations in Education with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPT). May be taken for honors.

EDUC 552. Culture and Language Acquisition for English Language Learners. 3 hours. Provides participants with a solid background of the stages of second language acquisition; history and development of second language instruction; foundations of second language learning; and similarities between child and adult language acquisition. Explores cross-cultural interaction and socio-cultural factors necessary to communicate with students, parents, and community members. Prerequisite: EDUC 261 Explorations in Education with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPT).

EDUC 553. Assessment and the English Language Learner. 3 hours. Details assessment issues relating to formal and informal first and second-language assessment instruments and techniques; item and test construction methods; administration, interpretation, and explanation of test results including identification, placement, monitoring, and exiting of the ELL. Includes hands-on use and interpretation of assessment tools. Prerequisite: EDUC 261 Explorations in Education with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPT).

EDUC 554. Methods and Instructional Materials for English Language Learners. 3 hours. Provides an understanding of the role of language in learning; the importance of developing ELLs’ communication skills. Includes methodology and instructional materials for the school setting: strategies for native language support; curricular and instructional adaptation; and advocacy for ELL students. Acknowledges the role of family literacy in second language acquisition. Prerequisite: EDUC 261 Explorations in Education with ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPT).

EDUC 555. Practicum with English Language Learners. 3 hours. A supervised, field-based, capstone experience in the education of English Language Learners organized according to a platform for professional practice and grounded in a best-practices framework. Specifically designed to facilitate and expose ELs to the role and function of the ESL teacher. Prerequisites: EDUC 551 Diversity in the Classroom, EDUC 552 Culture and Language Acquisition for English Language Learners, EDUC 553 Assessment and the English Language Learner, EDUC 554 Methods and Instructional Materials for English Language Learners and ENGL 308 English Linguistics or permission of instructor.

EDUC 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with student teachers during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

Electronics Engineering Technology

EET 100. Prolog to Electronics. 2 hours. (2 hours laboratory). First course in electronics program required of all new students. Basic electronics concepts, introduction to instrumentation and preparing lab reports. Includes strategies for success in the electronics curriculum.

EET 141. Introductory Electronics. 3 hours. (2 hours lecture, 2 hours laboratory). Principles of electricity, magnetism, and basic laws. Fundamentals of analog and digital electronic components and circuits, including applied areas. Laboratory involves experiments with basic circuits and test equipment.

EET 144. D.C. Circuit Analysis Methods. 3 hours. (2 hours lecture, 2 hours laboratory). Methods and mathematical techniques of analyzing DC circuits, Kirchoff’s Laws, Thevenin, Norton, superposition and maximum power transfer theorems. Branch, mesh, and nodal analysis. Prerequisite: EET 100. Recommended Prerequisites: MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus.

EET 244. Logic Circuits. 3 hours. (2 hours lecture, 2 hours laboratory). Theory and experimentation with building block circuits in logic systems and computers including number systems, codes, Boolean Algebra, gates, flip-flops, registers, clocks and memories. Prerequisite: EET 100 Prolog to Electronics. Recommended Corequisite: EET 144 D.C. Circuit Analysis Methods.

EET 245. Electronic Devices and Circuits. 3 hours. (2 hours lecture, 2 hours laboratory). Operation and characteristics of basic semiconductor devices. Study of basic electronic circuits including wave-shaping circuits, power supplies, and amplifiers. Prerequisite: EET 144 D.C. Circuit Analysis Methods.

EET 246. A.C. Circuit Analysis Methods. 3 hours. (2 hours lecture, 2 hours laboratory). Methods and mathematical techniques of analyzing A.C. circuits. Kirchhoff Laws and phase analysis. Apparent, reactive and real power calculations. Branch, mesh and nodal analysis. Prerequisites: EET 144 D.C. Circuit Analysis Methods and MATH 126 Pre-Calculus or MATH 122 Plane Trigonometry. Recommended Corequisite: MATH 150 Calculus I.

EET 247. Computer Programming for Electronic Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Introduction to computer programming with a high-level language including, subroutines, arrays, functions, etc. Programming applied to technology in industrial and consumer applications. Prerequisites: MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus.

EET 299. Electronics Core Exam. 1 hours (2 hour pre-lab). Comprehensive examination of electronics fundamentals. Includes DC and AC analysis, basic logic circuits, basic semiconductor devices, and mathematics through Calculus I. Exam must be passed prior to taking upper division courses. Prerequisites: EET 245 Electronic Devices and Circuits, EET 246 A.C. Circuit Analysis Methods and MATH 150 Calculus I.

EET 340. Introduction to Industrial Automation. 3 hours. (2 hours lecture, 2 hours laboratory). Industry standard automation concepts based on PLCs and other hardware. Terminology, symbolism, relay and ladder logic, hardware configuration, inputs (switches, software data and transducers), outputs (digital, analog, I/O panels and actuators), PLC programming and theory of hardware interfacing. Laboratory includes real world exercises and simulations. Prerequisite: EET 141 Introductory Electronics or GT 249 Fundamentals of Electricity/Electronics.

EET 341. Signals and Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Transfer Functions and their applications. Convolution and signal analysis in the frequency and Z domain. Laplace, Fourier and Z transforms and their applications. Prerequisites: MATH 155 Calculus II, EET 299 Electronics Core Exam. May be taken for honors.

EET 344. Microcomputer Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Theory of computer and microcomputer architecture. Experimentation with and applications of MPU's, ROM's, RAM's, PROM's, and I/O devices, both hardware and programming. Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 349. Linear Integrated Circuits. 3 hours. (2 hours lecture, 2 hours laboratory). Theory of operation and applications of analog integrated circuits. Laboratory experience includes circuits using operational amplifiers, phase locked loops and timers. Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 447. Communications Theory and Circuits. 3 hours. (2 hours lecture, 2 hours laboratory). Theory of operation of basic circuits and equipment used in industrial and commercial communications applications with emphasis on F.M., multiplex, A.M., and sideband techniques. Prerequisites: EET 299 Electronics Core Exam. May be taken for honors.

EET 448. Network Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Theory and experimentation with the basic components of local and wide area networking. Includes cabling systems, protocols, operating systems, and interconnecting strategies. Investigations into the use of personal computers in network systems will also be performed. Prerequisite: EET 299 Electronics Core Exam or EET 141 Introductory Electronics for Non-EET majors. May be taken for honors.

EET 449. Embedded Programmable Logic Devices. 3 hours. (2 hours lecture, 2 hours laboratory). Digital logic design incorporating current technologies. Topics include state machine design and utilizing programmable logic devices, such as field programmable gate arrays (FPGAs). Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 540. Electronic Design Proposal. 3 hours. (2 hours lecture, 2 hours laboratory). Research culminating in a circuit or system design proposal. Prerequisites: EET 344 Microcomputer Systems, EET 349 Linear Integrated Circuits and EET 447 Communication Theory and Circuits. May be taken for honors.
EET 546. Electronic Controls. 3 hours. (2 hours lecture, 2 hours laboratory). Fundamental control devices and concepts. Includes discrete semiconductor devices, microprocessors and integrated circuits in a controls setting. Prerequisite: EET 299 Electronics Core Exam or EET 141 Introductory Electronics for Non-EET majors. May be taken for honors.

EET 547. Electronic Communications Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Communication systems including antennas, transmission lines, microwave systems and fiber optics. Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 548. Aerospace Electronic Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Theory and applications of systems supporting flight. Topics include communication and navigation systems. Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 549. Embedded Microcontrollers. 3 hours. (2 hours lecture, 2 hours laboratory). Microcontroller concepts and principles of operation, architecture, programming, and peripheral systems. Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.


EET 644. Renewable Power Conversion. 3 hours. (2 hours lecture, 2 hours laboratory). Electrical energy conversion as it is applied to renewable energy systems such as solar power, wind power, fuel cells, and those found in electric and hybrid vehicles. Prerequisites: EET 299 Electronics Core Exam. May be taken for honors.

EET 646. Control Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Control system theory and analysis. Investigations of both electronic and non-electronic control systems including magnetic, mechanical, hydraulic, pneumatic, and optical. Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 647. Embedded Digital Signal Processing. 3 hours. (2 hours lecture, 2 hours laboratory). Theoretical and practical applications of digital signal processing techniques. Topics include z-transforms, digital filters, digital control, and utilizing hardware, such as digital signal processors (DSPs). Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 648. Data Communications Systems. 3 hours. (2 hours lecture, 2 hours laboratory). Theory of communications systems utilizing digital signals. Includes coding, digital modulation, basic information theory and networks. Prerequisite: EET 299 Electronics Core Exam. May be taken for honors.

EET 649. Advanced Programmable Controllers. 3 hours. (2 hours lecture, 2 hours laboratory). Principles of programmable controller technology. Programming, and theoretical analysis. Transducers, digital interfaces, and analog interfaces. Prerequisite: EET 299 Electronics Core Exam or EET 141 Introductory Electronics for Non-EET majors. May be taken for honors.

EET 840. Signal Processing. 3 hours. Theoretical and practical applications of signal processing techniques. Transform and filter theory and applications. Topics include FIR filters IIR filters Fourier transforms, Laplace transforms, and Z transforms. Prerequisites: MATH 155 Calculus II.

EET 842. Programmable Logic Devices. 3 hours. Theoretical and practical application of programmable logic devices, such as field programmable gate arrays (FPGAs). Prerequisite: Undergraduate work in digital logic.

EET 843. Advanced Engineering Electromagnetics. 3 hours. Electromagnetic fields; theorems, analytical and numerical solutions. Electrical and magnetic properties of materials, electrodynamics of continuum waveguides, transmission line, scattering, polarization, and other applied topics. Photonics and quantum electrodynamics. Software applications for the solution of electromagnetic problems.

EET 845. Advanced Microprocessor Systems and Applications. 3 hours. Microcomputer systems and applications including 16/32 Bit Microprocessors, digital signal processing (DSP) and microcontrollers. Assembly language programming using development systems. Prerequisite: 6 semester hours undergraduate work in microprocessor systems (hardware and software applications).

English

ENGL 100. English Composition for International Students. 3 hours. Intensive work on the word, sentence and paragraph levels. Required of all non-native speakers of English as a prerequisite for ENGL 101 English Composition and ENGL 299 Introduction to Research Writing, but requirement can be satisfied by examination. Offered on A, B, C, No Credit basis only. Not counted toward the total hours required for a degree.

ENGL 101. English Composition. 3 hours. A laboratory approach to problems in composition and reading. Prerequisite: Non-native speakers of English must have credit in ENGL 100 English Composition for International Students. Offered on A, B, C. No Credit basis only.

ENGL 113. General Literature. 3 hours. An introduction to poetry, fiction and drama. Not open to students with credit in ENGL 304 Introduction to Writing About Literature.

ENGL 114. General Literature (Genre). 3 hours. An introduction to literature through study of a single genre: poetry, fiction, or drama. Not open to students with credit in ENGL 304 Introduction to Writing About Literature.

ENGL 116. General Literature (Theme). 3 hours. Exploration of a significant theme through an introduction to two or more genres: poetry, fiction, or drama. Not open to students with credit in ENGL 304 Introduction to Writing About Literature.

ENGL 190. Honors English Composition. 3 hours. A course in reading, discussion, and writing. Offered spring semesters only to freshmen who have earned advanced standing in English. Honors equivalent to ENGL 299 Introduction to Research Writing. Prerequisites: ACT English score of 28 or higher, credit for ENGL 101 English Composition and completion of one Writing To Learn course.

ENGL 199. Introduction to English Studies. 2 hours. An overview of English studies (literature, writing, language, and theory) and departmental programs, including degree and assessment requirements. Exploration of career opportunities. Required of students in their first or second semester as English majors.

ENGL 202. English Grammar and Usage. 3 hours. Concepts of traditional, structural, and transformational grammars; issues of English usage; conventions of written English. Prerequisite: ENGL 101 English Composition or permission of instructor.

ENGL 215. Topics in Literature (). 1-3 hours. Studies in literary themes of contemporary interest.

ENGL 220. World Masterpieces. 3 hours. Major works of both Eastern and Western literature. Open to all students without prerequisite.

ENGL 222. World Masterpieces Laboratory. 1 hour. Viewing and responding to video versions of works read in ENGL 220 World Masterpieces or materials related to the readings. Three contact hours per week. Prerequisite: Concurrent enrollment in ENGL 220 World Masterpieces.

ENGL 230. American Literature. 3 hours. Representative prose and poetry, including literature by minority writers, from colonial times to the present. Open to all students without prerequisite.

ENGL 241. British Literature I. 3 hours. Representative authors and works from the Old English period to the Eighteenth Century.

ENGL 242. British Literature II. 3 hours. Representative authors and works from the Romantic to the contemporary period.

ENGL 250. Introduction to Creative Writing. 3 hours. Learning methods of writing contemporary poetry and fiction; reading poetry and fiction as a writer. Prerequisite: ENGL 101 English Composition.

ENGL 299. Introduction to Research Writing. 3 hours. Research writing techniques, critical thinking and critical reading, with emphasis on rhetorical skills. Close to students with credit in ENGL 102 or ENGL 103 English Composition. Prerequisite: ENGL 101 English Composition and two designated Writing To Learn courses. Exceptions require consent of Writing To Learn Coordinator. Offered on A,B,C, No Credit basis only.

ENGL 301. Technical/Professional Writing. 3 hours. Introduction to writing and designing technical/professional documents. Prerequisites: ENGL 101 English Composition and ENGL 299 Introduction to Research Writing or equivalent.

ENGL 302. Advanced Composition. 3 hours. Classical and contemporary rhetorical theory. Analysis of effective writing. Practice in solving standard writing problems. Prerequisites: ENGL 299 Introduction to Research Writing or equivalent and ENGL 202 English Grammar and Usage.

ENGL 304. Introduction to Writing About Literature. 3 hours. Contemporary and classical approaches to writing explication of poetry, fiction, and drama.

ENGL 308. English Linguistics. 3 hours. Linguistic concepts, including phonology, morphology, syntax, and semantics; language acquisition; language change; regional, social, and ethnic dialects. Prerequisite: ENGL 202 English Grammar and Usage or permission of instructor.


ENGL 320. Literature and Film. 3 hours. A study of literature as adapted to film, including adaptation theory and techniques for analyzing both literature and film. Open to students with credit in ENGL 120 Literature and Film. Meets general education requirements.

ENGL 346. The Craft of Poetry. 3 hours. Elements of poetry, emphasizing contemporary applications of traditional and experimental techniques.
ENGL 347. The Craft of Fiction. 3 hours. Elements of fiction, emphasizing contemporary applications of traditional and experimental techniques.

ENGL 351. Fiction Writing. 3 hours. Practicing the craft of fiction. Prerequisite: ENGL 250 Introduction to Creative Writing.

ENGL 352. Poetry Writing. 3 hours. Practicing the craft of poetry. Prerequisite: ENGL 250 Introduction to Creative Writing.

ENGL 451. Advanced Fiction Writing. 3 hours. Advanced work in fiction writing. Prerequisites: ENGL 250 Introduction to Creative Writing and ENGL 351 Fiction Writing.

ENGL 452. Advanced Poetry Writing. 3 hours. Advanced work in poetry writing. Prerequisites: ENGL 250 Introduction to Creative Writing and ENGL 352 Poetry Writing.

ENGL 478. Literature for Middle and Secondary Schools. 3 hours. Criteria and methods for selection, evaluation, analysis, and presentation of adolescent literature. Themes and trends in children's literature; history, tradition, and current themes and trends in adolescent literature. Prerequisite: ENGL 304 Introduction to Writing About Literature.

ENGL 479. Techniques for Teaching English in Middle and Secondary Schools. 3 hours. Concepts and strategies for teaching in the middle and secondary English classroom; roles and functions of non-verbal, written, and spoken media of communication. To be taken before the professional semester. Prerequisites: ENGL 202 English Grammar and Usage, admission to teacher education, and PSYCH 357 Educational Psychology.

ENGL 480. Internship. 1 hour. Field experience in the secondary classroom to complement competencies addressed in departmental methods courses. Prerequisites: Concurrent enrollment in ENGL 478 Literature for Middle and Secondary Schools or ENGL 479 Techniques for Teaching English in Middle and Secondary Schools is required. Must be taken immediately prior to ENGL 579 Supervised Student Teaching and Follow-Up of Teachers.

ENGL 501. Document Design. 3 hours. Practice in designing documents for specific audiences, purposes, and contexts. Prerequisite: ENGL 301 Technical/Professional Writing.

ENGL 503. Technical/Professional Editing. 3 hours. Principles of editing technical/professional documents. Prerequisite: ENGL 301 Technical/Professional Writing.

ENGL 504. Advanced Technical/Professional Writing. 3 hours. Advanced instruction in applying technical writing style and in creating hypertext documents, software documentation, and Controlled English (for translation into other languages).

ENGL 505. Technical/Professional Writing Internship. 1-3 hours. Practical writing experience in area business or agency. A minimum of 40 work hours per credit hour. May be repeated for a total of 6 hours. Prerequisites: ENGL 301 Technical/Professional Writing, ENGL 501 Document Design, ENGL 503 Technical/Professional Editing and permission of instructor.

ENGL 506. General English Internship. 1-3 hours. Practical experience related to an English or teaching degree. International internships accepted upon approval. A minimum of 40 work hours per credit hour. Prerequisites: ENGL 199 Introduction to English Studies and permission of the instructor.

ENGL 555. Topics in Literature (____). 1-3 hours. Studies in a particular period, movement, genre, theme, or writer. May be repeated if topic varies.

ENGL 556. Topics in Writing (____). 3 hours. Studies in composition, professional writing, editing, or creative writing. May be repeated if topic varies.

ENGL 557. Topics in English (____). 3 hours. Studies in rhetoric, linguistics, or some other non-literature, non-writing aspect of English studies. May be repeated if topic varies.

ENGL 560. British Genre (____). 3 hours. A broad study of representative works in a single genre—novel, poetry, drama, short story, or non-fiction—from all major literary periods. May be repeated if genre varies.

ENGL 561. British Theme (____). 3 hours. A study of a theme or idea in two or more genres in British literature. May be repeated if topic varies.

ENGL 565. American Genre (____). 3 hours. A broad study of representative works in a single genre—novel, poetry, drama, short story, or non-fiction—from all major literary periods. May be repeated if genre varies.

ENGL 566. American Theme (____). 3 hours. A study of a theme or idea in two or more genres in American literature. May be repeated if topic varies.

ENGL 570. International Literatures Genre (____). 3 hours. A cross-national study of a single genre—novel, poetry, drama, short story, or non-fiction—with a substantial selection from literatures other than British and American. May be repeated if genre varies.

ENGL 571. International Literatures Theme (____). 3 hours. A cross-national study of a theme or idea in two or more genres, with a substantial selection from literatures other than British and American. May be repeated if topic varies.

ENGL 575. Video Laboratory. 1 hour. Viewing and responding to adaptations of literary works and related audiovisual materials. Offered in conjunction with select literature courses. Three contact hours per week. Prerequisite: Concurrent enrollment in the literature course that the laboratory accompanies.

ENGL 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required.

ENGL 603. History of the English Language. 3 hours. The origin and development of the English language. Prerequisites: ENGL 202 English Grammar and Usage or ENGL 308 English Linguistics or permission of instructor.

ENGL 619. Shakespeare. 3 hours. An intensive reading of selected comedies, histories and tragedies. Prerequisite: ENGL 241 British Literature I or permission of instructor.

ENGL 620. Shakespeare Laboratory. 1 hour. Viewing and responding to videotaped plays of Shakespeare. Three contact hours per week. Prerequisite: Concurrent enrollment in ENGL 619 Shakespeare.

ENGL 699. Senior Seminar in English. 1 hours. An assessment seminar for senior English majors. Exploration of career opportunities. Required of all senior English majors. Prerequisite: 85 credit hours or more.

ENGL 704. Advanced Technical/Professional Writing. 3 hours. Advanced instruction in applying technical writing style and in creating hypertext documents, software documentation, and Controlled English (for translation into other languages). Prerequisite: ENGL 301 Technical/Professional Writing or permission of instructor.

ENGL 714. Applied Linguistics for English for Speakers of Other Languages. 3 hours. Contrastive analysis of English phonology, morphology, syntax, and semantics with other languages. Applications for English for Speakers of Other Languages.

ENGL 715. Topics in Teaching Literature (____). 1-3 hours. Issues in teaching literature at various levels. May be repeated if topic varies.

ENGL 716. Topics in Teaching Writing (____). 1-3 hours. Issues in teaching composition at various levels. May be repeated if topic varies.

ENGL 717. Topics in Teaching English. 1-3 hours. Issues in teaching English studies at various levels. May be repeated if topic varies.

ENGL 751. Senior Fiction Writing. 3 hours. Further advanced work in fiction writing. Prerequisites: ENGL 250 Introduction to Creative Writing, ENGL 351 Fiction Writing and ENGL 451 Advanced Fiction Writing or permission of Director of Creative Writing.

ENGL 752. Senior Poetry Writing. 3 hours. Further advanced work in poetry writing. Prerequisites: ENGL 250 Introduction to Creative Writing, ENGL 352 Poetry Writing and ENGL 452 Advanced Poetry Writing or permission of Director of Creative Writing.

ENGL 753. Multi-Genre Writing. 3 hours. Advanced work in traditional and experimental techniques in poetry, fiction, and other genres. Prerequisite: Completion of ENGL 351 Fiction Writing or ENGL 352 Poetry Writing or permission of the Director of Creative Writing.

ENGL 755. Topics in Literature (____). 1-3 hours. Studies in a particular period, movement, genre, theme, or writer. May be repeated if topic varies.

ENGL 756. Topics in Writing (____). 1-3 hours. Studies in composition, professional writing, editing, or creative writing. May be repeated if topic varies.

ENGL 757. Topics in English. 1-3 hours. Studies in rhetoric, linguistics, or some other non-literature, non-writing aspect of English studies. May be repeated if topic varies.

ENGL 771. Major Author(s) (____). 3 hours. Study of one or more major British or American authors. May be repeated if topic varies.

ENGL 772. Periods in Literature (____). 3 hours. Study of a major period in British or American literature. May be repeated if topic varies.

ENGL 805. Directed Study (____). 1-3 hours. Intensive individual or small-group study in literature, language or writing for persons with sufficient academic backgrounds. May be repeated if subject varies up to a total of 6 hours. Prerequisite: Permission of instructor and chairperson.

ENGL 810. Research Methods. 3 hours. Traditional and electronic methods and sources; evaluation of materials; forms of documentation; writing from sources.

ENGL 815. Writing for the Profession (____). 3 hours. Composition for professional audiences and purposes: Literary/Creative or Professional/Technical. Successful completion of the Professional/Technical version requires at least a moderate level of computer skills. May be repeated if topic varies.

ENGL 820. Theory (____). 3 hours. Study of theory of the discipline: Literary, Creative Writing, or Composition/Rhetoric. May be repeated if topic varies.
ENGL 845. Problems in Teaching of Composition. 1 hour. A consideration of the problems of teaching composition, with emphasis on rhetorical theory, current research in the teaching of composition, and evaluation of student writing. Prerequisite: Permission of instructor. May be repeated.

ENGL 850. Creative Writing Workshop (___). 3 hours. Advanced work in writing fiction, poetry, or another genre. May be repeated.

ENGL 875. Seminar (___). 3 hours. Selected authors, ideas, or issues in British, American, and/or International literatures; rhetoric and composition; or professional/technical writing. May be repeated if topic varies.

ENGL 890. Research and Thesis. 3 hours. Researching, organizing, and writing a graduate thesis. May be repeated for a maximum of 6 credit hours. Required for Option I of the Master of Arts in English.

ENGL 891. Research Problem. 3 hours. Field and library research project and appropriately documented report. May be repeated for a maximum of 6 credit hours. Required for Option II of Master of Arts in English.

ENGL 895. Professional/Technical Writing Internship. 3 hours. Practical writing experience in area business or agency. A minimum of 40 work hours per credit hour. May be repeated for a maximum of 6 credit hours. Prerequisite: Concurrent enrollment in ENGL 890 Research and Thesis or ENGL 891 Research Problem.

ENGL 905. Readings in English. 1-3 hours. Intensive individual readings on a subject in literature; rhetoric and composition; or professional/technical writing. May be repeated if topic varies.

Environmental Safety Technology

EST 101. The Environmental and Safety Industry. 3 hours. Overview of the environmental and safety industry including issues associated with general industry and construction, the environment, and professional organizations designed to introduce good safe practices, reduce injuries and improve our way of life for a better society. Course will include numerous activities to support course objectives.

EST 204. Introduction to Fire Safety. 3 hours. A study of problems associated with the hazards of fire including the review of historic catastrophic events, the chemistry of fire, fire department resources, fire prevention, fire protection systems, and the investigation of federal, state, and local code requirements necessary to make a safer home or workplace.

EST 215. Introduction to Environmental Compliance. 3 hours. Investigate regulatory requirements legislated to protect natural resources specific to air, water and solid waste management. Students will investigate the history, the development, and the implementation of laws, regulations, standards, and practices associated with the preservation of the environment.

EST 326. Basic Electrical Safety. 3 hours. This course is designed to analyze and evaluate electrical standards and determine the likelihood of incidents. The course content will use current NFPA technology to better design or modify existing electrical applications with the intent to reduce risk.

EST 393. Introduction to Industrial Safety. 3 hours. An overview of topics contained within OSHA Title 1910 general industry standards. Includes a basic description of compliance issues. Ten-hour OSHA voluntary compliance cards are available to students who qualify.

EST 396. Introduction to Construction Safety. 3 hours. Overview of basic safety principles and hazards relative to the construction workplace. Includes topics contained within OSHA Title 1926 standards. Ten-hour OSHA voluntary compliance cards are available to students who qualify.

EST 400. Cooperative Education/Internship (___). 3-6 hours. An internship or cooperative education experience in industry, business or government. Student is interviewed and employed by an industrial business or governmental organization with a defined work program. Supervision of the work experience is conducted by the employer and a program coordinator. May be repeated if subject matter is different. Written permission of the department is required. Offered on a pass-fail basis only.

EST 403. Industrial Safety. 3 hours. A study of safety standards as established by federal safety standards for general industry. Including, planning, developing, controlling, leading and communicating to improve productivity and to employ a safety culture. Thirty-hour OSHA voluntary compliance cards are available for students who qualify. Prerequisite: EST 393 Introduction to Industrial Safety.

EST 404. Fire Protection Systems. 3 hours. A study of the operational characteristics and maintenance requirements for active and passive fire protection systems including public water supplies, standpipes, automatic sprinklers, specialized extinguishment equipment, wet and dry chemical suppression appliances, fire alarm and detection systems, and smoke control devices. Prerequisite: EST 204 Introduction to Fire Safety.

EST 496. Construction Safety. 2 hours. Recognize, avoid and prevent work conditions which are unsanitary, hazardous or dangerous to workers in the construction industry using federal safety standards related to construction. Thirty-hour OSHA voluntary compliance cards are available for students who qualify. Prerequisite: EST 396 Introduction to Construction Safety. Co-requisite: EST 497 Construction Safety Laboratory.

EST 497. Construction Safety Laboratory. 1 hour. (2 hours laboratory). Construction safety labs appropriate for construction field activities including confined space, excavation and fall/scaffolding protection per OSHA regulations. Co-requisite: EST 496 Construction Safety.

EST 498. Environmental Safety. 3 hours. Review requirements designed to provide guidance and direction in phases of environmental programs, controls and regulations related to occupational safety and health, environmental, and chemical safety. Students will acquire skills enabling approved identification and control of household and industrial chemical hazards, monitor and administer hazardous waste disposal programs, while ensuring EPA and State compliance. Prerequisite: EST 215 Introduction to Environmental Compliance.

EST 505. Water Quality and Solid Waste Management. 3 hours. Explore requirements designed to protect natural resources specific to water quality and the impacts of waste associated with natural and industrial settings. Students will investigate current compliance standards, technology developed to mitigate the influence of residential, commercial, and industrial influences on the environment. Prerequisites: EST 215 Introduction to Environmental Compliance, CHEM 215 General Chemistry I and CHEM 216 General Chemistry I Laboratory.

EST 512. Risk Assessment. 3 hours. Accident causation and prevention in home, traffic, public and work environments. Understanding risk management and establishment of a risk management program. Junior standing.

EST 514. Industrial Hygiene. 3 hours. Investigate processes and procedures for monitoring, regulating, and maintaining industrial hygiene in the workplace, utilizing federal, state and local guidelines. Topics include: HazComm, air monitoring, IAQ, noise, vibration, radiation, thermal stress, ventilation, PPE, toxicology, ergonomics, etc. Related laboratory experiences required.

EST 516. Hazardous Materials. 3 hours. OSHA, EPA, and DOT guidelines for the proper storage, handling, and transporting of hazardous materials. Successful completion may result in either an 8-hour, 24-hour, or 40 hour HAZWOPER certification.

EST 524. Emergency Planning & Emergency Response. 3 hours. Analyze best management practices in accordance with governmental and nongovernmental provisions in providing a systematic approach in responding to emergencies created by both natural and manmade disasters. Students will gain insights into developing and implementing proactive planning strategies structured to controlling situations in compliance with FEMA guidelines. Completion of this course results in a variety of NIMS certifications.

EST 600. Fundamentals of Industrial Hygiene. 1-4 hours. Overview of the basic principles and practices of occupational safety and industrial hygiene. Regulatory requirements and lab projects will be included. Prerequisites: EST 393 Introduction to Industrial Safety or EST 603 Industrial Safety and appropriate science courses, or by permission of instructor.

EST 603. Industrial Safety. 3 hours. An in-depth study of the organization of accident prevention programs, job hazards, analysis, accident cost control, inspections, reports, records, and safety standards as established by the federal and state governments. Thirty-hour OSHA voluntary compliance cards are available for students who qualify. Prerequisite: EST 393 Introduction to Industrial Safety, or permission of instructor.

EST 604. Occupational Health and Safety. 3 hours. This course reviews the OSHA requirements, paperwork and resources for safety professionals. Areas covered are the OSHA standards for OSHA certification, voluntary compliance industrial standards, welding safety, ladders, scaffolding, platforms stairs/stairs, confined space lock out, tag out, respiratory, blood borne pathogen, rules, regulations, history, record keeping, citations, compliance requirements, elevated platforms, trips, and falls.

EST 605. Special Topics in Environmental and Safety (___). 1-3 hours. Selected topics in safety or environmental issues. Regularly scheduled classroom and laboratory studies pertaining to a distinct body of knowledge. May be repeated with different subject matter. Written permission of the department required.

EST 614. Environmental & Safety Program Development. 2 hours. Examine requirements of environmental and safety programs and how to incorporate into an organization’s efforts. Students will review developed programs and create their own, which will offer knowledge that can be immediately used upon going into the environmental or safety profession. Prerequisites: EST 403 Industrial Safety or EST 496 Construction Safety or EST 498 Environmental Safety.

EST 621. Ergonomics/Human Factors. 3 hours. Ergonomic and human factor principles that include human- machine systems, design systems, fundamentals of biomechanics, and associated problems and disorders. Open laboratory experiences required.
EST 624. Risk Control. 3 hours. Examine requirements of cost issues that impact the safety profession such as worker compensation, litigation, or return to work programs and how to incorporate these plans into the organization’s efforts to comply with regulations and reduce operating costs. Students will review developed programs and create their own programs which will offer knowledge that can be immediately used in the environmental or safety profession. Prerequisite: EST 403 Industrial Safety or EST 496 Construction Safety or EST 498 Environmental Safety. Junior standing.

EST 627. Modern Transportation Safety. 3 hours. Basic transportation requirements for land forms of transportation and their safety and environmental issues. Prerequisite: EST 393 Introduction to Industrial Safety or EST 603 Industrial Safety.

EST 628. Fire Safety. 3 hours. Study of problems associated with fire prevention and to meet OSHA and local code requirements necessary to make a safer home or workplace, being able to assess the fire hazards, develop a fire safety plan, and coordinate with necessary officials.

EST 629. Legal Issues in Environmental Health and Safety. 3 hours. Legal issues are exchanged and their relationship to business, industry and the individual liabilities, the law, history of the law, purpose of the safety requirements, hazard, responsibilities, record keeping, safe work environments, citations, time frames, and employee rights and responsibilities.

EST 630. Safety Management. 3 hours. Applications and processes of management to create a safety culture within the workplace. Emphasis is put on effectively designing, implementing, and assessing a safety program. Prerequisite: At least one safety course.

EST 696. Construction Safety. 3 hours. Recognize, avoid and prevent work conditions which are unsanitary, hazardous, or dangerous to workers in the construction industry. Federal safety standards related to construction. Thirty-hour OSHA voluntary compliance cards are available for students who qualify. Prerequisite: EST 396 Introduction to Construction Safety.

Electrical Technology

ET 181. Residential Wiring Methods. 5 hours. Interpretation and use of the National Electrical Code, calculations of electrical plans, residential wiring methods, sketching as involved in the wiring of single and multi-family dwellings. Corequisite: ET 182 Residential Wiring Methods Laboratory I.

ET 182. Residential Wiring Methods Laboratory I. 3 hours. Application of knowledge in wiring methods and the National Electrical Code to the complete planning and wiring of single and multi-family dwellings, with emphasis on drawing and reading blueprints. Will include laboratory projects and on-the-job experience. Corequisite: ET 181 Residential Wiring Methods.

ET 183. Fundamentals of Electricity. 3 hours. An introductory course for electricians and electrical technicians stressing electrical basics and how they relate to the National Electrical Code and the everyday work requirements of an electrician. Includes orientation to the electrical profession and a foundation of electrical fundamentals upon which subsequent Electrical Technology courses are based.

ET 184. Special Project. 2 hours. Allows the students to research problems encountered in their profession. Corequisite: ET 181 Residential Wiring Methods.

ET 185. Electrical Machinery and Equipment. 5 hours. Theory of operation, techniques of troubleshooting, repair, and diagnostic procedures in the installation and maintenance of single-phase and three-phase motors, generators and related equipment. Corequisite: ET 186 Electrical Machinery and Equipment Laboratory I.

ET 186. Electrical Machinery and Equipment Laboratory I. 3 hours. Hands-on application of theory, calculations, and design in the troubleshooting, repair, and diagnostic procedures involved in the installation and maintenance of single-phase and three-phase motors, generators and related equipment. Special emphasis given to equipment encountered in residential, commercial, and industrial applications. Corequisite: ET 185 Electrical Machinery and Equipment.

ET 187. Electrical Estimating and Blueprint Reading. 3 hours. Electrical estimating for construction and maintenance operations, material and labor costs, methods of electrical bid calculation, reading specifications and blueprints in the field of electricity.

ET 188. Special Project. 2 hours. Allows students to research problems encountered in their profession.

ET 282. Motor Control Fundamentals. 5 hours. Machine and system’s control design and installation starting with an in-depth study of basic control wiring circuits (pushbuttons, float switches, contactors, relays, sensors, etc.) and progressing into the complex circuits of modern process control including programmable controllers (PLCs), variable frequency drives (VFD’s), robotics, automation, etc. Corequisite: ET 283 Motor Control Fundamentals Laboratory.


ET 284. National Electrical Code. 3 hours. Study of the National Electrical Code as applied to single and multi-family dwelling, commercial and industrial locations, specialized, and hazardous locations. Special emphasis to be given to lead calculation, circuitry, service entrances, methods of installation, and proficiency in trade competency examinations.

ET 285. Special Project. 2 hours. Applied research and application to the design, documentation, and presentation of a student designed process or machine in the area of machine control and automation. Corequisite: ET 282 Motor Control Fundamentals.

ET 286. Industrial and Commercial Wiring Methods. 5 hours. Theory and installation of the special wiring methods used in commercial and industrial wiring and the national codes governing their usage. Lighting, motors, transformers and systems. Corequisite: ET 287 Industrial and Commercial Wiring Methods Laboratory I.


ET 288. Journeyman Electrical Certification. 3 hours. Study of National Electrical Code questions, problems, and calculations as a preparation for state electrical certification. Information on registration, certification, and exam time management skills.

ET 289. Special Project. 3 hours. A course to prepare the senior Electrical Technology student for successful certification and employment in their career field. Will include job search skills, interviewing techniques, electrical certification application and testing, development of a vita and resume, on-site and/or on-campus employer tours/visits, plus related information. Corequisite: ET 286 Industrial and Commercial Wiring Methods.

ET 299. Cooperative Industrial Training (Electrical Internship). 6 hours. The students serve a ten-week (400 clock hours minimum) internship “on-the-job” in the electrical field. The student is interviewed and employed by an electrical contractor, industrial employer, or other related business under provisions set forth in a training agreement. Supervision of the internship is conducted by the employer and university coordinator as outlined in the training agreement. Prerequisite: Completion of two “full-time” semesters in the Electrical Technology Program.

Engineering Technology

ETECH 200. Cooperative Education (___). 1-6 hours. A cooperative college-industry, college-business, or college-government work experience. The student is interviewed and employed by an industrial, business or government organization, then a work program is outlined. Supervision of the work experience is conducted by the employer and the college coordinator. May be repeated if subject matter is different. Written permission of department chairperson required. Offered on a Pass/Fail basis only.

ETECH 206. Seminar in Technology (___). 0.5 hours. Lectures and written reports on current topic in technology. May be repeated for a maximum of 2 hours. Written permission of instructor required. Offered on Pass/Fail basis only.

ETECH 296. Materials in Industry. 3 hours. Physical properties, structure and applications of materials used in manufacturing.

ETECH 300. Cooperative Education (___). 3-6 hours. A cooperative college-industry, college-business or college-government work experience. The student is interviewed and employed by an industrial, business, or government organization, then a work program is outlined. Supervision of the work experience is conducted by the employer and the college coordinator. May be repeated if subject matter is different. Written permission of department chairperson is required. Offered on a Pass/Fail basis only.

ETECH 400. Cooperative Education (___). 3-6 hours. A cooperative college-industry, college-business or college-government work experience. The student is interviewed and employed by an industrial, business, or government organization, then a work program is outlined. Supervision of the work experience is conducted by the employer and the college coordinator. May be repeated if subject matter is different. Written permission of department chairperson is required. Offered on a Pass/Fail basis only.

ETECH 401. Investigations in Technology (___). 1-4 hours. Special studies in technology to provide for the individual requirements of the student desiring supplemental work in the student’s field of special interest. Prerequisite: Written permission of department chairperson. May be repeated if subject matter is different.

ETECH 502. Engineering Economy. 2-3 hours. (2-3 hour lecture). Analysis of engineering proposals utilizing time value of money and related factors. Includes depreciation and after-tax consequences, feasibility and optimum life comparisons. Additional topics for three hours of credit are manufacturing cost studies, estimating, sources of costs, allocation of costs and justifications. Students should register for either two or three hours, based on specific program requirements.

ETECH 694. Engineering Technology Laboratory Internship (___). 1-4 hours. Variable credit for one to four hours. Can be repeated. Junior/Senior engineering technology students can enroll for the course in their technical area as laboratory assistants during the semester a specific laboratory is offered. Prerequisites: Junior/Senior standing and written permission of instructor. May be taken for honors.
ETECH 795. Special Topics in Engineering Technology (___). 1-3 hours. Selected topics in engineering technology. Regularly scheduled classroom and laboratory study pertaining to a distinct body of technical knowledge. May be repeated if subject matter is different. Written permission of department chairperson required.


ETECH 805. Current Issues in Engineering Technology. 3 hours. Study of specific activities/trends impacting the various engineering technology disciplines. Case studies and current innovation emphasis. May be repeated.

ETECH 807. Systems Engineering and Analysis. 3 hours. A systems approach to product/project design. System design process from needs identification through conceptual and detail design, product/project development, systems testing and evaluation. Operational and economic feasibility, reliability, maintainability, supportability. Consideration of various project/product design aspects (mechanical, thermal, electrical/electronic, aesthetic, safety, etc.).

ETECH 809. Engineering Project Management. 3 hours. The design and control of technologically based projects. Considering theoretical and practical aspects of systems models, organizational development, project planning and control, resource allocation, team development, quantitative and qualitative decision making, financial and legal issues.

ETECH 810. Collaborative Projects for Engineering Technology. 3 hours. Multidisciplinary capstone course incorporating aspects of design, product/project management, value engineering, quality control, current technologies and specific engineering/technology techniques to develop/design/improve products or processes. Collaboration of multidisciplinary backgrounds to address technical issues of varying duration and magnitude. Prerequisite: Should be taken as one of the last graduate courses in program. Permission of instructor.

ETECH 831. Value Engineering. 3 hours. (3 hours lecture). Value engineering concepts, function analysis system techniques (FAST) diagramming, creativity, matrix evaluation, design-to-cost, life cycle costing, human relations and strategies for organizing, performing and implementing value engineering work.

ETECH 852. Integrated Design and Manufacturing Concepts. 3 hours. Product design and manufacturing from concept to completed project including automated design and manufacturing, solid modeling for design and analysis, prototype and mold development, material selection, packaging, quality, cost, lean manufacturing, six sigma and concurrent manufacturing.

ETECH 880. Advanced Engineering Materials. 3 hours. An applications-oriented study of engineered and structural materials with emphasis on morphology and microstructure for detailed understanding of compositions, structure, properties, characteristics and inter-relationship/connectedness of materials. Includes the dynamic and mechanical behavior to facilitate fracture and performance analysis of materials, and materials selection for problem solving, environmental-friendly, cost-effective designs and project implementation.


ETECH 890. Research and Thesis. 3-6 hours. Development of a thesis under Option I. Prerequisite: TTED 891 Methods of Research. May be repeated for a maximum of six hours. May be taken as graded or pass-fail.

ETECH 895. Advanced Topics in Engineering Technology. 1-6 hours. Selected topics in engineering technology. Study pertains to a distinct body of technical knowledge. May be repeated if subject matter is different. Research paper and presentation to ETECH Graduate Committee required. Prerequisite: Written permission of the instructor required.

ETECH 899. Quantitative Decision Making in Industry. 3 hours. Methods of utilizing quantitative techniques in production planning, manufacturing engineering, quality control and product marketing for modern industry.

Family and Consumer Sciences

FCS 100. Career Management in Family and Consumer Sciences. 1-2 hours. Lecture. Survey of professional opportunities within family and consumer sciences: history and development of the field. Career development. First year of enrollment as major/minor.

FCS 110. Introduction to Interior Design. 3 hours. Lecture. Survey of the house as a space for both individual and family living. Aesthetic, functional, economic, social, and psychological influences of the total living environment are studied.

FCS 120. Communication Graphics for Interior Design. 3 hours. Studio. Seeing, drawing, analysis and graphic communication using ideation, visualization, and representation. Application of the elements and principles of design to interior environments. Purchase of supplies required.

FCS 150. Introduction to Merchandising. 3 hours. Introduction to merchandising principles from product development through retailing. Emphasis on fashion and interiors.

FCS 154. Dress and Culture. 3 hours. Study of the social significance of dress in cross-cultural, historical, and contemporary contexts.


FCS 214. Space Planning and Programming. 3 hours. Lecture and Studio. Design development and planning of interior spaces. Methodology for analyzing, planning and furnishing spaces. Prerequisite: FCS 110 Introduction to Interior Design or FCS 120 Communication Graphics for Interior Design.

FCS 230. Consumer Education and Personal Finance. 3 hours. Lecture. Concepts include economic foundations; consumer ethics, decision making, and protection; fraud; identity theft; and advertising. Personal finance topics include money management, banking basics, consumer credit, credit regulation and mortgage finance legislation. General Education course.

FCS 270. Practicum in Family and Consumer Sciences (___). 1 hours. Supervised work experience in family and consumer sciences occupation. Exposure to career alternatives in an applied setting. Graded on a pass-fail basis only.

FCS 285. Lifespan Human Development. 3 hours. Lecture. The process of growth from conception through death. Major theoretical approaches are applied to the developmental process in the context of family, society, and the intrapersonal dimension. Application to personal and professional settings.

FCS 301. Nutrition. 3 hours. Lecture. Principles of normal nutrition. Food values and adequate nutrient allowances for growth and maintenance. Nutritive needs of special groups. Prerequisite: One science course with laboratory. May be taken for honors.

FCS 312. History of Design I. 3 hours. Lecture. Study of historic architecture, interiors and furniture from antiquity to the 1900’s. Emphasis is given to the identification of the interiors and furniture of these eras. May be taken for honors.

FCS 313. History of Design II: 1900-Present. 3 hours. Lecture. Study of historic architecture, interiors and furniture from the 1900’s through the present. Emphasis is given to the identification of styles, interiors and furniture of these eras. May be taken for honors.


FCS 316. FCS Lighting. 3 hours. Introduces fundamentals of lighting. Lighting design solutions and all settings and spaces. Prerequisite: FCS 110 Introduction to Interior Design or permission of Instructor.

FCS 323. Interior Design Materials and Resources. 3 hours. Lecture. A study of materials and resources used in designing residential and contract interiors. CSI (Construction Specifications Institute) format utilized.

FCS 325. Interior Design: Studio II. 3 hours. Lecture and studio. Intermediate studio problems with emphasis on conceptualization, design theory, ideation, programming, and space planning. Prerequisite: FCS 320 Interior Design: Studio I. Purchase of supplies required. May be taken for honors.

FCS 326. CADD for Interior Design. 3 hours. Studio. Introduction to and application of computer-aided design and drafting techniques. Prerequisite: Purchase of supplies required.

FCS 340. Topics in (___). 1-6 hours. Intensive study in selected areas of family and consumer sciences. May be repeated if topic varies.

FCS 351. Apparel Evaluation. 3 hours. Lecture and laboratory. Critical evaluation of ready-to-wear apparel; understanding mass production techniques and industry standards; development of illustrative skills. Prerequisite: Junior standing. May be taken for honors.

FCS 352. The Fashion Industry. 3 hours. Lecture. Design, production, and marketing of men’s, women’s, and children’s apparel. Domestic and international wholesale and retail operations. Prerequisite: Junior standing. May be taken for honors.

FCS 355. Construction Techniques. 3 hours. Lecture and laboratory. Construction of basic garments and/or home furnishings with emphasis on appropriate fabric selection, and pattern choice or development; fitting and alteration; standards in basic construction. Purchase of supplies required.

FCS 356. Textiles. 3 hours. Lecture. Fibers, yarn, fabrications and finishes of fabrics affecting the selection and care of textiles.
FCS 390. Interacting with Children. 3 hours. Applying developmental theories to guidance and management issues for infancy through adolescence. Relationship of guidance to social development. Prerequisite: FCS 285 Lifespan Human Development or PSYCH 263 Developmental Psychology. Must be taken concurrently with FCS 391 Practicum in Early Childhood. May be taken for honors.

FCS 391. Practicum in Early Childhood. 1 hour. Supervised work experience in an early childhood setting. Taken concurrently with FCS 390 Interacting with Children. May be repeated. Graded on a pass/fail basis.

FCS 392. Infant and Toddler Development. 3 hours. Lecture. An in-depth examination of infant and toddler development including physical, language, and cognition changes. Emphasis will be on development, care, and teacher training for this age. Prerequisites: FCS 285 Lifespan Human Development or PSYCH 263 Developmental Psychology. May be taken for honors.

FCS 401. Food Science and Preparation Techniques. 3 hours. Lecture and laboratory. The exploration of principles used in food preparation and food science. An examination of basic biochemistry of food and nutrition, food economics, food safety and specific types of food.

FCS 409. Demonstration Techniques and Instructional Technology. 3 hours. Lecture and laboratory. Exploration of instructional media and technology used for effective professional presentations. Emphasis will be placed on laboratory and field experiences using current technology. Prerequisite: Junior standing or above.

FCS 411. Professional Practices for Interior Design. 3 hours. Lecture. General procedures for operating and maintaining an interior design business both residential and commercial, including costs, pricing, specification writing, management, professional responsibilities, presentations, and client communications.

FCS 420. Interior Design: Studio Ill. 3 hours. Studio. A series of advanced creative design solutions for residential environments. Design for new construction, remodeling, and restoration projects for a variety of life style needs, budgets, physical conditions, and life cycle stages. Programming, working drawings, presentation techniques, and specifications. Prerequisite: FCS 325 Interior Design: Studio II. Purchase of supplies required. May be taken for honors.

FCS 422. Interior Design: Studio IV. 3 hours. Studio. Contract studio involving public use interior spaces such as those for special populations, retail, historic preservation, corporate facilities, open office systems, assisted-living, nursing homes, and medical facilities. Programmatic requirements and complex design solutions. Prerequisite: FCS 310 Professional Practice for Interior Design. Purchase of supplies required. May be taken for honors.

FCS 429. Career and Technical Education in the FACS Curriculum. 3 hours. Lecture. Curriculum, techniques and materials to implement the career cluster curriculum into 6-12 FCS programs. Procedures for career and technical education funding at the state level and Carl Perkins funding at the federal level. Corequisite: FCS 479 Techniques for Teaching Vocational Family and Consumer Sciences. May be taken for honors.

FCS 430. Family Resource Management. 3 hours. Lecture. Management processes, techniques, technologies and resources essential to managing today’s home environment. Prerequisite: FCS 230 Consumer Education and Personal Finance and Junior standing. May be taken for honors.

FCS 440. Visual Merchandising. 3 hours. Lecture and laboratory. Visual merchandising of ideas and products as an art form. Laboratory experiences on campus and in local retail stores. Restricted to Fashion Merchandising and Interior Design students or permission of instructor. Prerequisite: Junior standing. May be taken for honors.

FCS 452. Fashion Buying and Merchandising. 3 hours. Planning, buying, promoting and selling of apparel. Prerequisite: FCS 352 The Fashion Industry. May be taken for honors.


FCS 470. Professional and Social Skills. 3 hours. Lecture. Development of skills contributing to success in business environments: proper attire, dining etiquette, business relationships, resumes and interviewing, conflict and job stress management, written and oral communication, and international protocol. Prerequisite: Junior standing.

FCS 479. Techniques for Teaching Vocational Family and Consumer Sciences. 3 hours. Lecture and laboratory. Techniques, methods, and course content used in teaching family and consumer sciences in the secondary school. Philosophy of vocational education, curriculum construction and implementation for vocational family and consumer sciences. To be taken before the professional semester. Prerequisite: Admission to teacher education and PSYCH 357 Educational Psychology. May be taken for honors.

FCS 480. Dynamics of Family Relationships. 3 hours. Lecture. Dynamics of family relationships across lifespan with focus on interaction, role, communication and structure from systemic perspective. Involvement of familial processes in routine, healthy and normal development of children and adults. May be taken for honors.

FCS 490. Developmental Planning: Preschool and Kindergarten. 3 hours. Lecture. Principles of growth, development and curriculum for the preschool and kindergarten level. Emphasis on planning, implementation, and evaluation of activities within domains to enhance all areas of development. Corequisite: FCS 491 Preschool Laboratory.

FCS 491. Preschool Laboratory. 1-2 hours. Laboratory. Participation and observation in preschool laboratory. Three hours per week (per credit). Non-majors take 1 credit. Majors enroll for 2 credits. Corequisite: FCS 490 Developmental Planning: Preschool and Kindergarten. Prerequisite: HHP 260 First Aid and CPR or permission of instructor. May be repeated for a maximum of three credits.

FCS 570. Professional Internship (____). 2-4 hours. Application of concepts and skills through work experience. Sites negotiated between student and instructor reflecting area of study. Prerequisites: Senior standing or permission of instructor. Open to FCS majors only.

FCS 571. Directed Readings in Family and Consumer Sciences. 1.5-3 hours. Selected readings with emphasis on contemporary problems suited to student interest. Development of research and investigative skills. Students anticipating graduate study encouraged to enroll. May be repeated for a maximum of 3 hours. Prerequisite: Junior standing.

FCS 572. Senior Seminar in Family and Consumer Sciences. 1 hours. Lecture. Capstone; current issues in family and consumer sciences; strategies for professional development. Integrates core concepts and theories. (To be taken during final semester or year of study.) Open to FCS majors only.

FCS 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Laboratory. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow-up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

FCS 580. Family Violence and Child Abuse. 3 hours. Lecture. Prevalence, causes, and impact of violence and abuse on individual and family; criteria for recognizing child victims; legal aspects of professional responsibilities and interventions. May be taken for honors. Prerequisite: Junior standing.

FCS 581. Aging and the Family. 3 hours. Lecture. Examination of family and kinship relations in later adulthood and old age. Prerequisites: FCS 480 Dynamics of Family Relationships or permission of instructor.

FCS 590. Development of the Child: Birth Through Age Eight. 3 hours. Lecture. In-depth examination of child development and appropriate practices highlighting contemporary work in the field of early childhood, birth through age eight. Focus on developmentally appropriate approaches in infant, toddler, preschool and elementary school programming. Prerequisites: FCS 285 Lifespan Human Development or PSYCH 263 Developmental Psychology and Junior standing. May be taken for honors.

FCS 591. Supervised Teaching in the Early Childhood Lab. 5 hours. Laboratory. Directed student teaching within the PSU Preschool lab with the option of partial placement in other approved settings. Curriculum development, observation, interaction, instruction and assessment in a preschool setting. Prerequisites: Junior standing. Must apply within ECD program prior to enrollment. FCS 285 Lifespan Human Development, FCS 390 Interacting with Children, FCS 490 Developmental Planning: Preschool and Kindergarten, FCS 491 Preschool Laboratory.

FCS 592. Study of Youth and Adolescence. 3 hours. Lecture. An exploration of the principles and theories of growth and development within and between stages of children in childhood and adolescence. Covers physiological, cognitive, social, and emotional domains of development. Emphasis on family and community influences and contexts in the individual and groups. Prerequisite: FCS 285 Lifespan Human Development or PSYCH 263 Developmental Psychology. May be taken for honors.

FCS 600. Study Tour. 1-3 hours. An academically based study tour experience. May combine academic course work, industry experience, travel and cultural immersion. May be repeated if the tour, region or country visited is different. Special permission of instructor required.

FCS 670. Senior Applied Learning. 1-3 hours. Supervised applied work experience in an area of study. May be repeated up to nine credit hours. Prerequisite: Senior standing.

FCS 690. Parent/Professional Relationships. 3 hours. Lecture. Exploring roles and opportunities for early childhood educators and others interacting with parents and parent audiences. Use of media, workshops, communication, parent/teacher conferences. May be taken for honors.

FCS 730. Independent Study (____). 1-3 hours. Individual study, either research or readings oriented, under the direct supervision of an appropriate member of the faculty. May be repeated with a different topic for a maximum of six credits. Permission of instructor. Prerequisite: Senior standing or graduate student.

FCS 740. Special Topics: (____). 1-4 hours. Intensive study in special areas of family and consumer sciences. May be repeated if subject matter is different. Offered as graded or pass-fail.
FCS 771. Directed Readings in Family and Consumer Sciences. 1-3 hours. Selected readings with emphasis on contemporary problems suited to student interest. Development of research and investigative skills. Students anticipating graduate study encouraged to enroll. May be repeated for a maximum of three hours. Prerequisite: Junior standing. May be taken for honors.

FCS 780. Family Violence and Child Abuse. 3 hours. Lecture. Prevalence, causes, and impact of violence and abuse on individual and family; criteria for recognizing child victims; legal aspects of professional responsibilities and interventions. May be taken for honors. Prerequisite: Junior standing.

FCS 792. Advanced Exploration of Issues in Youth and Adolescence. 3 hours. Lecture. An examination of contemporary theories and research addressing the period of childhood and adolescence. Emphasis on individual, family, and community influences on reasoning and behavior. Students will be involved in a research project. Prerequisite: FCS 285 Lifespan Human Development or PSYCH 263 Developmental Psychology.

Finance

FIN 326. Business Finance. 3 hours. The financial structure of business organization, capital structure, and methods of raising fixed or working capital, questions of financial policy, such as dividend policies and the conservation of surplus; comparative balance sheets and income expense statements. Prerequisites: ECON 200 Introduction to Microeconomics, ACCTG 202 Managerial Accounting or ACCTG 305 Construction Accounting, and 55 hours completed.

FIN 621. Investments. 3 hours. Functions and operations of security markets: problems of planning and managing investing programs for various types of investors. Prerequisite: FIN 326 Business Finance and 55 hours completed or permission of instructor. May be taken for honors.

FIN 623. Financial Institutions and Markets. 3 hours. Policies, actions and corporate strategies of financial institutions: banks, insurance agencies, mutual funds and other financial intermediaries. Prerequisite: FIN 326 Business Finance and 55 hours completed or permission of instructor. May be taken for honors.

FIN 624. Investments II. 3 hours. Analysis of derivatives, fixed income instruments, portfolio theory and equity valuation. Prerequisites: FIN 621 Investments, MGMT 320 Business Statistics and 55 hours completed, or permission of instructor. May be taken for honors.

FIN 625. International Finance. 3 hours. Foreign exchange markets, balance of payments, international investment and capital flows, as well as problems, policies and techniques for financial decision-making in a multinational environment. Pre-requisites: ECON 201 Introduction to Macroeconomics, FIN 326 Business Finance, and 55 hours completed.

FIN 627. Advanced Business Finance. 3 hours. Analysis of financial problems, policies, planning and decision making. Financing current operations, long-term financing and special financial problems. Prerequisites: FIN 326 Business Finance, MGMT 320 Business Statistics and 55 hours completed or permission of instructor. May be taken for honors.

FIN 631. Seminar in Financial Management. 3 hours. A capstone course in finance one which culminates the course work for the major. Emphasis will be placed on the integration and application of concepts from financial management, investments/security and portfolio management, and institutions/banking, via case studies and computer-based models. Prerequisites: FIN 627 Advanced Business Finance, FIN 621 Investments, FIN 623 Financial Institutions and Markets and 55 hours completed or permission of instructor. May be taken for honors.

FIN 693. Topics in Finance (____). 1-3 hours. Study of a specific topic in finance. Specific subject area will be identified each time the course is offered. May be repeated if topic is different. Prerequisite: FIN 326 Business Finance, 55 hours completed and permission of instructor.

FIN 694. Internship in Finance. 1-6 hours. Relevant work experience in private or public institutions. The work experience must be approved by the instructor. May be repeated for a maximum of six hours. Prerequisite: 55 hours completed and permission of the instructor required.

FIN 827. Seminar in Finance (____). 3 hours. Comprehensive reading and research in various fields of finance. May be repeated if subject matter is different. Prerequisites: FIN 326 Business Finance and admission to the MBA program.

FIN 836. Financial Strategy. 3 hours. Financial management of the firm, emphasizing financial planning, capital budgeting and cost of capital. Case method. Prerequisite: FIN 326 Business Finance, or waiver.

Geography

GEOG 106. World Regional Geography. 3 hours. Geographic distribution of urban, cultural, economic and demographic phenomena in several contrasting regions of the world. The importance of historical context and the impacts of globalization.
GEOG 603. Internship in GIS and Urban Geography. 1-4 hours. Supervised work experience related to Geographic Information Systems (GIS) and urban geography in local/regional agencies, and/or public administrative service agencies. May be repeated up to a maximum of 6 credit hours.

GEOG 795. Seminar: Special Topics in Geography (1-3). 1-3 hours. Intensive study of specific topics in geography. The specific topics will be designated each time the course is offered. May be repeated when the topic is different. Prerequisite: One course in geography or permission of instructor.

Gerontology

GERO 155. Interdisciplinary Introduction to Gerontology. 3 hours. Interdisciplinary framework and the study and practice of gerontology. Major issues in theory, research, and experience with older adults. Critical reading of gerontological research from multiple disciplines and translating research into practical problem solving.

Graphics and Imaging Technologies

GIT 100. Introduction to Graphics Technologies. 3 hours. Overview of the graphics industry, including digital imaging, print media, and web/interactive graphics. Current issues, developments, trends, and projections.

GIT 141. Vector Based Graphics. 3 hours. Image composition techniques and procedures utilizing vector graphics software. (Adobe Illustrator)

GIT 142. Raster Graphics Software. 3 hours. Image composition techniques and procedures utilizing raster graphics software. (Adobe Photoshop)

GIT 221. Web Graphics Software. 3 hours. Web design principles, techniques, and procedures utilizing web design software for the development of web pages.

GIT 230. Graphic Design. 3 hours. Design principles, typography studies and procedures used in the planning of graphic elements and page layout for print and web applications.

GIT 231. Audio/Video Software. 3 hours. Audio and visual composition techniques and procedures utilizing audio and video software. Prerequisite: GIT 100 Introduction to Graphics Technologies.

GIT 240. Page Layout Software. 3 hours. Composition techniques and procedures utilizing page layout software. (Adobe InDesign)

GIT 241. Image Composition Software. 3 hours. Image composition techniques and procedures utilizing photographic and illustrative software (Photoshop, Illustrator).

GIT 301. Graphics Career Development. 2 hours. Preparation of students for employment in graphics internships and full-time positions. Emphasis is placed on academic planning, certification opportunities and procedures, resume content, job search skills, job interview, business etiquette, time management and goal setting. Prerequisite: GIT 100 Introduction to Graphics Technologies.

GIT 310. Photography. 3 hours. Techniques and procedures for creating photos for reproduction purposes. Includes densitometry, sensitometry, composition, lighting, displaying of prints. Introduction to digital photography.


GIT 322. Web Site Design. 3 hours. Web site development techniques, design and standards. Prerequisites: GIT 221 Web Graphics Software.

GIT 323. Web and Motion Graphics. 3 hours. Techniques and procedures for applying basic animation principles to produce a sequence using 2D animation and motion graphics software for web output. Prerequisite: GIT 221 Web Graphics Software. May be taken for honors.


GIT 334. 3D Graphics. 3 hours. Introduction to 3D modeling and scanning. Prerequisite: GIT 100 Introduction to Graphics Technologies.

GIT 341. Digital File Preparation. 3 hours. File preparation techniques for reproduction on various substrates using mechanical and digital techniques. Prerequisites: GIT 240 Page Layout Software and GIT 241 Image Composition Software.


GIT 350. Printing Technologies. 3 hours. Fundamental characteristics, uses and operational procedures of traditional and digital printing technologies and equipment including image conversion and press layout techniques. Print quality control and troubleshooting. Prerequisite: GIT 100 Introduction to Graphics Technologies.

GIT 351. Post-Press Operations. 3 hours. Conversion of printed sheet into final product. Cutting, folding, finishing, binding, mailing and distribution of printed materials. Prerequisite: GIT 350 Printing Technologies. Fall only course.

GIT 355. Speciality Graphics. 3 hours. Screen printing, wide-format printing, pad printing and other specialty printing principles and applications. Digital file preparation and printing of projects. Prerequisites: GIT 100 Introduction to Graphics Technologies and GIT 141 Vector Based Graphics.

GIT 400. Investigations. 1-4 hours. Individual studies in printing and graphic design to meet special interests. Prerequisite: Permission of instructor. May be repeated to a maximum of four credit hours provided subject matter is different.

GIT 401. Graphics Work Experience. 1-3 hours. Current on-the-job work experience/career exploration in a graphics setting. May include job shadowing. Credit hours variable depending on number of hours worked. Prerequisites: 18 hours in GIT and approval of the department chairperson.

GIT 410. Commercial Photography. 3 hours. Photography for commercial and product purposes. Emphasis will be on still life in the studio. Prerequisite: GIT 311 Studio Product Photography. May be taken for honors.

GIT 421. Interactive Media Design. 3 hours. Introduction to scripting in icon-based and command-based authoring to create interactive digital media and online applications. Prerequisite: GIT 221 Web Graphics Software.

GIT 432. Digital Media Design. 3 hours. Planning, storyboarding, workflow and techniques of capturing audio and video. Prerequisite: GIT 231 Audio/Video Software. May be taken for honors.

GIT 441. Preflight and File Analysis. 3 hours. The preparing, analyzing, processing, repairing and outputting of digital files. Prerequisite: GIT 341 Digital File Preparation. May be taken for honors.

GIT 450. Inks and Substrates. 3 hours. Characteristics of inks and substrates as related to printing production. Examination and testing of materials during production. Prerequisite: GIT 350 Printing Technologies. May be taken for honors. Fall only course.

GIT 510. Portrait Photography. 3 hours. Tools and techniques used in photographing people in the studio and in environmental settings. Prerequisite: GIT 311 Studio Product Photography. May be taken for honors.

GIT 521. Mobile Media Development. 3 hours. Content creation for mobile devices (Tablets, SmartPhones) Creation, testing and delivery of digital content. Prerequisites: GIT 100 Introduction to Graphics Technologies and GIT 240 Page Layout Software.


GIT 530. 3D Animation and Rendering. 3 hours. Animating and rendering 3D graphics. Prerequisite: GIT 334 3D graphics. May be taken for honors.


GIT 560. Graphics Cost Analysis. 3 hours. Analysis of hour costs of graphics production centers, problems in cost and cost systems used by the graphics industry. Prerequisites: GIT 350 Printing Technologies. May be taken for honors. Fall only class.


GIT 580. Sales and Customer Service. 3 hours. Introduction to skills and practices of sales and customer service representatives. May be taken for honors.

GIT 590. Special Topics (1-). 1-3 hours. Selected topics in graphic arts and graphic design. Each class limited to single topic. May be repeated if subject matter is different. Prerequisite: Permission of instructor. May be taken for honors.
GIT 600. Graphics Internship. 3 hours. Graphic experiences at a work site in a commercial setting. Prerequisite: B5 total hours, 20 hours of GIT courses, and approval of the department chairperson. Offered on a Pass-Fail basis only.

GIT 601. Laboratory Practicum. 1-4 hours. Practical experience in a departmental laboratory setting. Prerequisite: Senior standing and approval of the department chairperson.

GIT 640. Color Reproduction. 3 hours. Techniques in using scanner and digital camera images for reproduction in the RGB and CMYK workflow. Emphasis is placed on color correction and color managed output. Prerequisite: GIT 342 Print File Preparation and Preflighting. May be taken for honors.

GIT 650. Production Graphics. 3 hours. This capstone course will simulate a live production environment. Students will take orders, write job specifications, create estimates, prepare artwork and digital files, produce the finished product and perform job billing. Prerequisites: Senior standing, permission of instructor, 30 hours of GIT coursework completed.

GIT 680. Graphics Administration. 3 hours. Graphics management and production problems. Interpersonal relationships, communication skills, and change theory. Addresses the function of upper level management. Prerequisites: 15 hours of management and marketing and 20 hours of graphics and imaging. May be taken for honors. Spring only class.

GIT 690. Senior Project. 2 hours. Planning and executing a project to enhance the students overall understanding of the graphic arts, graphic design and digital industries. Projects will follow an individual approach and will include all aspects of the project from conception, design and production, as well as presentation skills. Prerequisites: Senior standing, permission of instructor and 20 hours of graphics and imaging.

GIT 800. Graphics Internship. 3 hours. Graphic experience in a work site in a commercial, governmental or industrial setting. Prerequisite: Approval of the Department Chairperson.

GIT 810. Special Topics (____). 1-3 hours. Selected topics in graphics and imaging. Each class limited to single topic. May be repeated if subject matter is different. Prerequisite: Permission of the instructor.

GIT 840. Color Reproduction. 3 hours. Techniques in using scanner and digital camera images for reproduction in the RGB and CMYK workflow. Emphasis is placed on color correction and color managed output. Prerequisite: GIT 342 Print File Preparation and Preflighting.

GIT 880. Graphics Administration. 3 hours. Graphics management and production problems. Interpersonal relationships, communication skills, and change theory. Addresses the function of upper level management. Spring only class.

GIT 890. Graphic Arts Seminar (____). 1-6 hours. Graphic arts industry, materials, production and processes. Individual reports and group discussions. May be repeated if subject matter is different for a maximum of six hours.

GIT 892. Selected Readings in Graphic Arts (____). 1-3 hours. Directed readings and special investigations in selected areas of graphic arts. May be repeated if subject matter is different for a maximum of 3 hours. Prerequisite: Permission of instructor.

Graduate Technology

GRT 801. Interdisciplinary Perspectives in Technology. 3 hours. An overview of technology from an interdisciplinary perspective; to increase the awareness of other programs, the culture of American Business and other academic disciplines.

GRT 805. Current Issues in Technology. 3 hours. Study of activities, topics, and trends impacting on technology. Case studies and current innovations and future emphasized.

GRT 888. Product Design and Management. 3 hours. Product design from concept to completed product. Initial design and key characteristics, material selection, manufacturing and quality considerations, cost restraints, testing and evaluation of a product, packaging and maintainability of this product. Topics such as concurrent engineering versus serial engineering will also be covered.

GRT 890. Research and Thesis. 3-6 hours. May be repeated for a maximum of 6 hours. Prerequisite: GRT 891 Methods of Research.

GRT 891. Methods of Research. 3 hours. Fundamental principles and techniques of research, which include the development of a research proposal. Prerequisites: MGMT 320 Business Statistics or equivalent.

GRT 894. Research Application in Technology. 3 hours. Theoretical and applied research in existing or emerging technologies. Development of a problem, fabrication of apparatus for the research, conducting the research and writing the research report. Prerequisite: GRT 891 Methods of Research.

GRT 896. Graduate Project. 3 hours. Planning and executing project to enhance student's overall understanding of industry and business. Project may be production or research related. Team approach. Prerequisite: Last semester of graduate work.

General Technology

GT 100. Encounters in Technology (____). 1-3 hours. Competency-based learning experiences in technology and engineering technology education. May be repeated if subject matter is different for a maximum of six hours. Permission of instructor.

GT 130. Applications in STEM. 3 hours. Course designed to integrate practical mathematics in science, technology and engineering applications showing the relationship of math to specific science, technology and engineering applications to include mechanical, fluid, electrical, light/optical and thermal systems; to include resistance, energy, work, power, and momentum. Additional relationships will include wave/vibration and radiation. Includes performance based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: MATH 113 College Algebra or MATH 110 College Algebra with review.

GT 190. Introduction to Technological Systems. 2 hours. Introductory examination of technological systems, including production, communication, transportation, and bio-related technologies, and their social-cultural impacts. Demonstrations, cooperative learning activities and discussions of assigned resource materials are primary means of learning.


GT 300. Engineering Design and Problem Solving. 3 hours. Course designed to develop cognitive information emphasizing the generation and communication of engineering and technological information. Topics include strategies to encourage invention and innovation; methods for documentation (e.g. portfolios, logs); sketching tools and techniques; engineering modeling/prototyping and graphic presentation; and related math, science, and technical analysis. Includes a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering and/or permission of instructor.

GT 310. Contextual Topics in Technology and Engineering. 3 hours. An overview of relevant or current technological topics delivered through a series of classroom and on-line experiences. Students are exposed to the cognitive knowledge of systems such as bio-related, medical, agricultural, alternative energy, military and governmental technologies. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering and/or permission of instructor.

GT 320. Communication Systems in Technology. 3 hours. An overview of communication technologies delivered through a series of on-line experiences, students are exposed to the cognitive knowledge of computers, graphic production, telecommunications, technical design, fiber optics, and audio/video systems. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering and/or permission of instructor.

GT 330. Engineering Materials and Processes. 3 hours. An overview of engineering materials and material processing technologies in mediated format. Through a series of on-line experiences, students are exposed to the cognitive knowledge of engineering materials and processes related to the categories of wood, metal, plastic, earth and composite engineering materials. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering and/or permission of instructor.

GT 340. Power/Energy/Transportation Systems. 3 hours. An overview of industrial power, energy and transportation technologies delivered through a series of classroom and on-line experiences. Students are exposed to the cognitive knowledge of power, energy and transportation systems and the development, use and impacts of energy resources. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering and/or permission of instructor.

GT 350. Technology and Civilization. 3 hours. The development of technology and the pervasive nature of technological innovations. An awareness of the promises and uncertainties associated with technology and institutions of society. May be taken for honors.

GT 360. Computer Aided Drafting. 3 hours. An overview of computer aided drafting delivered through a series of classroom and on-line experiences. Students are exposed to the cognitive knowledge of CAD technologies and its relationship to electrical, mechanical, construction and other technological areas. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering and/or permission of instructor.
GT 361. Technical Graphics with AutoCAD. 2 hours. Covers the fundamental principles of technical drawing. Topics introduced include, lettering for notations, visualization, sketching orthographic projection, dimensioning, sections, and pictorial drawing. AutoCAD is used to teach 2-D technical graphics fundamentals. Co-requisite: GT 362 AutoCAD Applications (____) or permission of instructor.

GT 362. AutoCAD Applications (____). 1 hour. Specific technical applications associated with students technical areas are taught. Topics include: mechanical, architectural, electrical, detail drawing for assembly and installation, etc. May be repeated for a maximum of three credit hours if subject matter is different. Corequisite or Prerequisite: GT 361 Technical Graphics with AutoCAD or permission of instructor.

GT 365. Technical Graphics with SolidWorks. 2 hours. Covers the fundamental principles of technical drawing. Topics introduced include, lettering for notations, visualization, sketching, orthographic projection, dimensioning, sections, and pictorial drawing. SolidWorks is used to teach 2-D and 3-D technical graphics fundamentals. Co-requisite or Prerequisite: GT 361 Technical Graphics with AutoCAD or permission of instructor.

GT 366. SolidWorks Applications (____). 1 hour. Specific technical applications associated with students technical areas are taught. Topics include: mechanical, architectural, electrical, detail drawing for assembly and installation, etc. May be repeated for a maximum of three credit hours if subject matter is different. Corequisite or Prerequisite: GT 365 Technical Graphics with SolidWorks or permission of instructor.

GT 370. Construction Systems Technology. 3 hours. An overview of the construction industry delivered through a series of classroom and on-line experiences. Students are exposed to the cognitive knowledge of construction technologies to include residential, commercial, and civil. Also discussed will be the impacts of the construction industry. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering and/or permission of instructor.

GT 380. Manufacturing Enterprise. 3 hours. An overview of the manufacturing industry delivered through a series of classroom and on-line experiences. Students take active roles in a simulated production process, including formation of a company, product design, production planning, finance, and marketing and sales. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisite: GT 191 Foundations of Technology and Engineering or permission of instructor. May be taken for honors.

GT 390. Automated Systems. 3 hours. An overview of the automated systems delivered through a series of classroom and on-line experiences. Students are exposed to the cognitive knowledge of automated systems to include rapid prototyping, robotics, CNC and programmable logic control. Includes laboratory based experiences designed to reinforce cognitive information through a series of integrated hands-on laboratory activities and projects. Prerequisites: GT 191 Foundations of Technology and Engineering or permission of instructor. May be taken for honors.

Health and Human Performance

HHP 101. Weight Training. 1 hour. May not be repeated. Students wishing additional credit should enroll in HHP 200 Lifetime Sports: (Weight Training).

HHP 103. Badminton and Tennis. 1 hour. May not be repeated. Students wishing additional credit should enroll in HHP 200 Lifetime Sports: (Badminton and Tennis).

HHP 105. Golf. 1 hour. May not be repeated. Students wishing additional credit should enroll in HHP 200 Lifetime Sports: (Golf).

HHP 107. Racquetball. 1 hour. May not be repeated. Students wishing additional credit should enroll in HHP 200 Lifetime Sports: (Racquetball).

HHP 109. Physical Fitness Training. 1 hour. Footnote: See ROTC Department before enrolling.

HHP 120. Swimming I. 1 hours. An elementary course in the fundamentals of swimming and diving. May not be repeated. Students wishing additional credit should enroll in HHP 200 Lifetime Sports: (Swimming I).

HHP 150. Lifetime Fitness Concepts. 1 hours. Basic concepts for the development and maintenance of physical fitness. Concepts are cardiovascular fitness, weight control, nutrition, strength, flexibility, etc. Fitness assessment and exercise prescription included.

HHP 151. Dance Appreciation. 3 hours. Students will develop an aesthetic awareness and appreciation of dance in its artistic, social, and cultural contexts. A variety of dance experiences will be used to explore dance aesthetics, history, and the creative process.

HHP 195. Introduction to Physical Education. 2 hours. A basic orientation to the field of physical education including discipline objectives, historical and philosophic considerations, professional memberships, career opportunities, and a thorough examination of the departmental professional preparation program.

HHP 200. Lifetime Sports: (____). 1-3 hours. May include: bicycling, scuba diving, karate, aerobics, weight training, racquetball, etc. Specific topics may be repeated. Offered on Pass-Fail basis only.

HHP 220. Lifeguarding. 2 hours. Includes certification in American Red Cross Lifeguarding and CPR for the professional Rescuer. Must pass swimming proficiency test at the first class session.

HHP 222. Water Safety Instructor. 2 hours. Successful completion of this course means certification to teach all levels of Red Cross Swimming and Community Water Safety. Prerequisite: Must pass swimming proficiency test.

HHP 260. First Aid and CPR. 2 hours. American Red Cross Standard First Aid and Cardiopulmonary Resuscitation. Provides fundamental principles and skills in First Aid and CPR. Taught by lecture-discussion, workbooks, and practice aid sessions.

HHP 262. Care and Prevention of Athletic Injuries. 2 hours. Modern principles and practice in conditioning and care of athletes.

HHP 300. Drug Use and Abuse in Athletics. 1 hours. The effects of drug use and abuse in athletics and sports will be studied. Drug education and effective decision making skills will be stressed.

HHP 320. Rules and Officiating. 2 hours. The rules of football, basketball, and volleyball will be studied, as well as the mechanics of officiating them. Students will select two of the three areas to meet course requirements.

HHP 321. Coaching Softball and Baseball. 2 hours. Strategies, techniques and various coaching theories are covered through lecture, demonstration and observation. Recognized methods of coaching and training are emphasized.

HHP 322. Coaching Track and Field. 2 hours. The technical study of the various events and the place in life this sport has occupied from the time of the ancient Olympic games to the present day. The recognized methods of coaching and training are emphasized.

HHP 323. Coaching Football. 2 hours. A study of the history of football and the influence on school and college students. Its place in a school curriculum and its use as an extracurricular activity are emphasized. Reports, lectures, and discussions.

HHP 324. Coaching Basketball. 2 hours. The history and development of the game of basketball and systems used in various sections are stressed through lectures, reports, and discussions. The principles of conditioning and strategy are emphasized.

HHP 325. Coaching Volleyball. 2 hours. Strategies, techniques, and various coaching theories are covered through lecture, demonstration and observation. Recognized methods of coaching and training are emphasized.

HHP 326. Coaching Swimming. 2 hours. The techniques associated with coaching the four competitive swimming strokes for youth to adult levels. Philosophy and methods of coaching are emphasized through lecture, demonstration, practice and analysis of physical skills and designed for use in both competitive and physical education settings. Prerequisite: Swimming proficiency test to be determined by instructor.

HHP 340. Scientific Foundations of Coaching. 2 hours. This course is designed for undergraduate majors in Physical Education and other undergraduate students interested in coaching. The basis of the course is to present a fundamental understanding of specific scientific areas in which coaches should demonstrate competencies. These areas include exercise physiology, sport psychology, and biomechanics of movement. The overriding goal is that students leave the course with the practical skills and knowledge base needed to coach athletic teams of all ages.

HHP 341. Elementary School Physical Education and Health. 3 hours. Study and participation in creative and mimetic activities, lead-up games, rhythms, stunts, tumbling, self-testing activities and games of low organization. Current issues and trends in elementary principles, health, fitness, program planning, class organization, and evaluations will also be covered.


HHP 347. Elementary Games and Rhythms for K-6. 2 hours. Study and practice in conducting games, health, and rhythmic activities along with supervised laboratory experiences for students of physical education, and/or elementary education. Prerequisites: HHP 341 Elementary School Physical Education and Health and permission of instructor.

HHP 349. Group Fitness Instruction. 2 hours. This course is designed to teach students the principles of group fitness instruction, provide guidelines for group exercise segments and practical teaching skills exposing the student to a variety of exercise modes. Prerequisites: HHP 151 Dance Appreciation and HHP 200 Lifetime Sports: (dance electives).

HHP 360. Theory and Fundamentals of Activities I. 2 hours. Theories and techniques of individual and dual sports with practical application of knowledge, principles, and analysis of skill as they relate to the teaching process. Sport activities to be covered will be selected from the following: tennis, bowling, badminton, golf, archery, and racquetball.
HHP 361. Theory and Fundamentals of Activities II. 2 hours. Theories and techniques of team sports with practical application of knowledge, principles and analysis of skill as they relate to the teaching process. Sport activities to be covered will be selected from the following: soccer, volleyball, field hockey, touch football, basketball, softball, and track and field.

HHP 362. Theory and Fundamentals of Activities III. 2 hours. Theories and techniques of selected non-traditional sports or activities with practical application to knowledge, principles, and analysis of skill as they relate to the teaching process. Activities to be covered will include aerobic dance, gymnastics, and tumbling.

HHP 385. Practicum in Health and Human Performance. 2 hours. Students will learn through both practical experience and program design effective methods of planning and implementing activities in the areas of either coaching; group fitness, dance and rhythms; or strength and conditioning. Prerequisites: All courses in selected emphasis must be taken prior to practicum experience.

HHP 440. Topics in Health, Human Performance and Recreation ( ), 1-3 hours. Directed class or seminar study at the undergraduate level in various areas of health, human performance and recreation. The specific topic or topics will be designated each time the course is offered. May be repeated if subject matter differs. May be offered for pass-fail or graded credit.

HHP 460. Kinesiology. 3 hours. A study of the action of the articulations and muscle groups during gymnastic exercises, games and athletics, selection and prescription of exercises. Prerequisite: BIOL 257/BIOL 258 Anatomy and Physiology/Laboratory. May be taken for honors.

HHP 462. Adapted Physical Education. 2 hours. Study of the ways in which the needs of the atypical student can be met. Particular emphasis on body alignment and other medical aspects of the handicapped. Special emphasis given to various exercise modalities and prescriptions relating to treatment.

HHP 464. Physiology of Exercise. 3 hours. Responses of the human body to exercise with special emphasis on muscular contraction, body composition, training regimens, generation of energy, and oxygen transport system. Prerequisites: BIOL 257/BIOL 258 Anatomy and Physiology/Laboratory.

HHP 466. Motor Development. 3 hours. The study of the perceptual and motor development of typical and atypical children as it relates to their ability to learn motor skills; with an emphasis on how to identify and aid children with body management problems. May be taken for honors.

HHP 468. Principles of Administration in Health and Physical Education. 3 hours. The organization, equipment, and supervision of a health and physical education department. The duties of a director in arranging schedules, tournaments, and meets. May be taken for honors.

HHP 479. Techniques for Teaching Physical Education. 3 hours. Techniques, methods, and course content used in teaching health and physical education in the secondary school. Offered by the HHPR department. To be taken before the professional semester. Prerequisites: Admission to teacher education and PSYCH 357 Educational Psychology.

HHP 499. Report ( ). 1-2 hours. Additional study in some phase of Health, Physical Education or Recreation requiring a professional or community service activity and prescribed by instructor. May be repeated if report is different.

HHP 500. Advanced Peer Health. 1 hours. Additional study in peer and community health activities. Service activities are required and the course may be repeated by instructor permission and assignment. Prerequisite: Permission of instructor.

HHP 510. Physiology of Exercise II. 3 hours. A continuation of HHP 464 Physiology of Exercise with an in-depth look to the physiology of the skeletal, muscular, respiratory, and circulatory systems, with special reference to their adjustments during acute and chronic exercise. Laboratory experiences are included. Prerequisite: HHP 464 Physiology of Exercise.

HHP 512. Exercise Testing and Prescription. 3 hours. This course provides a basis for understanding the process of planning and implementing exercise programs to improve the health and functional capacity of individuals. Implications of exercise related research with elderly populations will be emphasized. Prerequisite: HHP 464 Physiology of Exercise.

HHP 514. Clinical Exercise Physiology. 3 hours. This course examines the physiologic basis for movement dysfunction and the impact of exercise on individuals with diseases and disorders. Opportunities to participate with clients and clinical professionals may be available. Prerequisite: HHP 464 Physiology of Exercise.

HHP 516. Research Project in Exercise Physiology. 3 hours. This course is an independent study in exercise physiology. Students will participate in research projects under the direct supervision of the instructor. Prerequisites: ENGL 299 Introduction to Research Writing and MATH 243/244 Elementary Statistics.

HHP 520. Clinical Practicum/Internship. 6-12 hours. The internship in exercise science is completed under the supervision of an agency staff member with at least a Bachelor's Degree and approval of the university instructor. Enrollment provides off-campus opportunities for practical application. The student will work in private or public organizations such as hospital, clinic or laboratory. Application and instructor permission is required.

HHP 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow-up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass/Fail basis only.

Health, Human Performance and Recreation

HHPR 704. Physical Education Workshop: ( ). 1-3 hours. Topics to be determined. May include such areas as: gymnastics, track and field, treatment of athletic injuries and various other topics related to physical education and athletics. May be repeated if subject matter is different. May be taken on a pass/fail basis.

HHPR 710. Assessment of Motor Dysfunction in Special Populations. 3 hours. Applying instruments in determining physical and motor needs of individuals with disabilities. Includes discussion of instrument selection, administration, and interpretation with an emphasis on practical application. Prerequisite: HHP 462 Adapted Physical Education or permission of instructor.

HHPR 712. Methods and Materials for Teaching Adapted Physical Education. 3 hours. This course deals with the organization and administration of adapted physical education. Basic structure of adapted programs, desirable goals, various methods, materials and techniques of teaching students with disabilities are discussed. Prerequisite: HHP 462 Adapted Physical Education or permission of instructor.

HHPR 714. Practicum in Adapted Physical Education. 3 hours. Supervised practical experience enabling students to gain insight into the various methods, materials and techniques of providing physical activity for students with disabilities. Prerequisite: HHP 462 Adapted Physical Education or permission of instructor.

HHPR 720. Health Education Methods and Materials. 3 hours. This course is designed to prepare teachers, pre-school through middle school, with methods and materials necessary to implement a health education program. Emphasis will be on personal health and wellness, effective cooperation with parents, physicians, public health agencies and consumer awareness.

HHPR 722. School Health Problems. 3 hours. Problems in promoting the health of school children, programs of prevention and protection against infectious diseases; physical inspection and examinations; health and safety instruction.

HHPR 724. Principles of Health Education. 3 hours. History, philosophy, current trends, basic issues, and fundamental principles of health education are considered. Using these principles as basic criteria, students make critical appraisals of health curricula, health units, health teaching methods, audio-visual health materials and health tests.

HHPR 760. Technology and Instrumentation in Human Performance. 3 hours. This course is designed to give students laboratory experience in the use of instrumentation and procedures commonly employed to assess human performance, physical fitness, and cardiopulmonary health status in modern laboratories of applied exercise physiology, sports physiology, and contemporary health screening facilities. It is also designed to prepare the student to generate both written and graphical representations and descriptions of data and to get the student accustomed to writing in a scientific style/format that is worthy of publication. Prerequisite: Senior or graduate status.

HHPR 763. Scientific Principles of Strength and Conditioning. 3 hours. The purpose of this course is to familiarize the student with the scientific principles and proper techniques behind intermediate and advanced strength training for fitness and sport. In addition to advanced practical skills of weight training, the students will also be introduced to the underlying physiological and bio-mechanical principles behind program design. This course is predicated on the philosophy that good strength coaches are proficient in both verbal explanation and demonstration of proper exercise techniques. Prerequisites: BIOL 257/258 Anatomy & Physiology, HHP 460 Kinesiology, and HHP 464 Physiology of Exercise.

HHPR 801. Methods of Assessment in Health Human Performance and Recreation. 3 hours. Methods used in the administration and application of various instruments in the health, physical education and recreation professions. Statistical procedures to be used in evaluating tests and their results will be explored and applied. Prerequisites: Completion of undergraduate statistics course or permission of instructor.

HHPR 806. Special Investigations ( ). 1-3 hours. Independent study in physical education particularly relevant to the educational program of the individual student under the direct supervision of an appropriate staff member. May be repeated if subject matter differs. Prerequisite: Permission of instructor.

HHPR 810. Foundations of Human Performance and Wellness. 3 hours. The purpose of this course is to familiarize the student with the basic historical, philosophical, ethical, and cultural foundations regarding human performance and wellness. Students will review the research and current literature in the sub-disciplines of physical education, sport, dance, exercise science, and wellness. Students will develop an understanding and appreciation for human movement and its important relationship to global health-related physical fitness and wellness.

HHPR 820. Foundations of Recreation and Leisure. 3 hours. A study of the basic historical, philosophical, ethical, and cultural foundations of recreation and leisure in society. A critical review of the major writings and research in the field will be utilized to assess the role of recreation and leisure in modern society and the future. Prerequisites: Acceptance in HHPR graduate degree program or permission of instructor.
HHRP 823. Finance and Marketing in Sport and Leisure Services. 3 hours. Finance and Marketing in Sport and Leisure Services will address the concepts of financing, grant writing, and endowments used in commercial, non-profit and educational settings. In addition, marketing, promotion and public relations used to promote and identify the business or organization and the programs and services offered will be explored.

HHRP 825. Leadership and Legal Issues in Sport and Leisure Services. 3 hours. This course is designed to introduce graduate students to the administrative process in sport and leisure service management. Current leadership practices will be covered with a focus on the concepts of tort law, constitutional law and risk management as they relate to the sport and recreation professions.

HHRP 826. Sport and Leisure Facility Development and Operation. 3 hours. A course on design principles for people in the sport and leisure field. Emphasis will be on the design, construction, and maintenance of sport and leisure facilities including park areas, playgrounds, gymnasiums, golf courses, and athletic fields.

HHRP 840. Seminar [___]. 3 hours. A specific area in physical education will be studied intensively through readings, reports and discussions. A specific subtitle or problem such as physical education program K-12 will be listed in the schedule of classes. May be repeated under different topics. Prerequisite: Permission of instructor.

HHRP 863. Biomechanics. 3 hours. The focus of the course is on the fundamental biomechanical principles to the human musculoskeletal system. We explore the physiology of the body's interaction with its environment, and integrate biology and physics to describe, define, and understand movement. Topics will include kinematics, kinetics, energetics, and musculoskeleton mechanics.

HHRP 866. Advanced Exercise Physiology. 3 hours. The lecture and laboratory sessions are designed to investigate concepts of energy metabolism, lactate production and accumulation, energy expenditure, excess post exercise oxygen consumption, cardiovascular temperature regulation, neuromuscular control, aerobic and anaerobic adaptations and ergonomics. The laboratory sessions expand upon the lectures by providing an opportunity to conduct a detailed review of scientific literature, collect data on human performance, and interpret the responses in conjunction with the literature.

HHRP 870. Supervision and Management of Therapeutic Recreation Services. 3 hours. The purpose of this course is to explore and understand the theoretical and practical knowledge of supervision and management of therapeutic recreation services in health and human service organizations. Students will explore and acquire the core competencies essential for supervision and management of therapeutic recreation services and how such services fit in the milieu of services provided through various health and human service organizations and agencies.

HHRP 875. Advanced Therapeutic Recreation Processes. 3 hours. Techniques, approaches, procedures, protocols and practices in the provision of therapeutic recreation services. Prerequisites: Permission of instructor required.

HHRP 877. Social-Psychology of Sport and Recreation. 3 hours. This course is designed for students to study the social/cultural, and psychological aspects of sport and recreation. Students are provided the opportunity to research, discuss, and gain an awareness of the impact of sport in American society and its social controversies. Students will also be exposed to the factors affecting athletic performance such as motivation, personality and group facilitation. This course will also expose the students to current social controversies related to organized sport in America.

HHRP 884. Leadership and Programming in Hospital Recreation. 3 hours. The principles and practices involved in the leadership of hospital recreation and in the establishment of programs for various types of hospital patients. Prerequisite: HHRP 875 Advanced Therapeutic Recreation Processes.

HHRP 890. Research and Thesis. 3-5 hours. (3-5 hours depending upon the topic and the recommendation of the advisor). May be repeated for a maximum of 5 hours. Prerequisite: HHRP 891 Methods of Research.

HHRP 891. Methods of Research. 3 hours. Methods, techniques and applications of research in health, physical education and recreation. Should be scheduled in first enrollment. Prerequisite: Departmental consent.

HHRP 895. Internship [___]. 3 hours. An opportunity to serve an internship in a Health, Human Performance or Recreation setting under the supervision of a school, agency, or organization upon approval of the department. May be taken in such areas as education, public recreation department, a hospital, or in an industrial setting. To be taken as the last course in an emphasis area. Prerequisite: Permission of the Department.

History

HIST 101. World History to 1500. 3 hours. The origin and historical development of various cultures throughout the world and the interplay of physical, economic, political and social forces in the shaping of world civilization to 1500.

HIST 102. World History from 1500. 3 hours. The origin and historical development of various cultures throughout the world said the interplay of physical, economic, political and social forces in the shaping of world civilization from 1500 to the present.

HIST 201. American History to 1865. 3 hours. The origins of the American nation to the conclusion of the Civil War.

HIST 202. American History from 1865. 3 hours. The emergence of modern America, 1865 to the present.

HIST 305. Readings in American History [___]. 1-2 hours. Intensive individual readings in selected topics and particular movements its American history. Prerequisite: Permission of instructor. May be repeated for a maximum of 2 hours.

HIST 306. Readings in World History [___]. 1-2 hours. Intensive individual readings in selected topics and particular movements in World history. Prerequisite: Permission of instructor. May be repeated for a maximum of 2 hours.

HIST 430. History: Theory and Practice. 3 hours. Introduction to basic historical research methods and writing, library usage, and bibliographical aids. Prerequisite: 12 hours of history. Required for all history majors.

HIST 435. Archives and Manuscripts. 3 hours. Managing archival records and manuscripts. Will provide a basic understanding of archival work, including electronic records. Participation in hands-on activities required. Prerequisite: HIST 430 History: Theory and Practice or permission of instructor.

HIST 479. Techniques for Teaching Middle and Secondary Social Studies. 3 hours. Techniques, methods, and course content used in teaching social studies in the middle and secondary schools. Must be taken before the professional semester and should be taken in the semester immediately prior to it. Prerequisites: Admission to teacher education, HIST 430 Theory and Practice, EDUC 520 Methods and Materials for Academic Literacy and PSYCH 357 Educational Psychology.

HIST 501. Special Topics in World History [___]. 1-3 hours. Intensive study of various subjects, periods, and movements in World history to be chosen each semester in consultation with the student body. May be repeated if subject matter changes. Will be counted as World history. May be taken for honors.

HIST 502. Special Topics in American History [___]. 1-3 hours. Intensive study of various subjects, periods, and movements in American history to be chosen each semester in consultation with the student body. May be repeated if subject matter changes. Will be counted as American History. May be taken for honors.

HIST 505. African Civilizations. 3 hours. Social, economic, political, and religious forces shaping African history from its beginnings. Emphasis on the classical civilizations of Northeast Africa, including Egypt, and the Medieval civilizations of West Africa. Prerequisite: HIST 101 World History to 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 507. Modern Africa. 3 hours. Social, economic, political, and religious forces shaping modern Africa from 1860 to the present. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 510. Modern Middle East. 3 hours. Social, economic, and political forces shaping Middle Eastern history from 1800 to the present, with discussion of early Islamic history. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 515. World War I. 3 hours. The origins, course, and results of World War I. Prerequisite: A course in history or permission of instructor. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 518. Hitler and Nazi Germany. 3 hours. The life and times of Adolf Hitler, the rise of the Nazis, the participation of Germany in World War II, and the Holocaust. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 520. World War II. 3 hours. The background, course, and results of the Second World War. Prerequisite: A course in history or permission of instructor. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 522. Korean and Vietnam Wars. 3 hours. The origins, course, and results of the Korean and Vietnam wars. Prerequisite: HIST 202 American History from 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 523. Early China. 3 hours. History of China from antiquity to 1700, including political, intellectual, economic, cultural and social development. May be taken for honors. Prerequisite: HIST 101 World History to 1500 or permission of instructor.

HIST 524. Early Japan. 3 hours. History of Japan from pre-history to 1700, including political, intellectual, economic, cultural and social development. May be taken for honors. Prerequisite: HIST 101 World History to 1500 or permission of instructor.

HIST 526. Japan Since 1700. 3 hours. Political, economic, social, and cultural history of Japan from the eighteenth century to the present, including the relationship between Japan and the world. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.
HIST 527. China Since 1700. 3 hours. Political, economic, social, and cultural history of China from the eighteenth century to the present, including the relationship between China and the world. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 529. History of South Asia. 3 hours. Political, economic, social, and cultural history of India, Pakistan and surrounding South Asian regions, from the pre-history to present, including the relationship between South Asia and the world. Prerequisite: HIST 101 World History to 1500 or HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 530. Early European Civilization. 3 hours. Development of Mediterranean civilization from prehistoric times to the fall of Rome (476 A.D.). Prerequisite: HIST 101 World History to 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 531. Samurai: History, Literature, Myth. 3 hours. Emergence of samurai as distinct warrior class in Japan, rise to dominance, and their elimination as a class in the modern era. Cultural and social legacies as well as political and economic position. Prerequisite: HIST 101 World History to 1500 or HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 532. History of Japanese Women. 3 hours. Examination of legal, social and cultural position of women in Japanese society from antiquity to present. Prerequisite: HIST 101 World History to 1500 or HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 533. U.S.-East Asia Relations. 3 hours. Political, military, economic, social and cultural interaction between East Asia and the U.S. with emphasis on the modern era. Prerequisite: HIST 202 American History from 1865 or HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 534. Korea Since 1700. 3 hours. Political, economic, social, and cultural history of Korea from the eighteenth century to the present, including the relationship between Korea and the world. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 535. Medieval Civilization. 3 hours. Changes and developments in Europe from the fall of the Western Roman Empire, 476 to 1500. Prerequisite: HIST 101 World History to 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 536. Modern South America. 3 hours. A survey of modern South American history covering the nineteenth and twentieth centuries but with a substantial review of the pre-Columbian, conquest, and colonial periods. Focus will be on the social and political forces that have shaped the region in the past two hundred years. Prerequisite: HIST 102 World History from 1500.

HIST 540. English History to 1660. 3 hours. Development of England from medieval times to 1660, with emphasis on origin and development of common law, the courts, and other significant institutions. May be taken for honors.

HIST 545. English History since 1660. 3 hours. Continuation of 540 English History to 1660; 1660 to present. May be taken for honors.

HIST 546. The Age of Empire. 3 hours. Examines expansionism and colonialism of the 19th and 20th centuries, including underlying intellectual, political, and economic causes, the consequent competition among the major powers, and the effects of that competition on non-Europeans. Prerequisites: HIST 102 World History from 1500, an equivalent, or permission of instructor. May be taken for honors.

HIST 547. Radical Islam. 3 hours. This course covers the history, description, and current influence of the radical strains of Islam, both Sunni and Shi’a, that have had such an impact on world affairs in recent decades, especially since the tragic events of 9/11. Prerequisite: HIST 102 World History from 1500.

HIST 548. The French Revolution and Napoleon. 3 hours. The Old Regime in France, the decade of Revolutions, the rise of Napoleon Bonaparte and the First Empire: the effects of the Revolution and the Napoleonic era on the political and social institutions of France and Europe. Prerequisite: HIST 102 World History from 1500, its equivalent or permission of instructor. May be taken for honors.

HIST 550. Your Family in History. 3 hours. Exploration of family history with emphasis on life in twentieth-century America using the tools of genealogy and oral history.

HIST 576. History of U.S. Presidents. 3 hours. Examines the successes and failures of those who have held the nation’s highest elective office, from George Washington to the present. Considers the factors necessary to predict and evaluate the president’s tenure as chief executive. Prerequisite: HIST 201 American History to 1865.

HIST 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required.

HIST 605. Africa and the Middle East. 3 hours. Examines the cultural links between Africa and the Middle East from 10,000 BCE to present, including Christianity, Islam, European encroachment and colonialism, the Cold War, democratization, and recent developments. Prerequisites: HIST 101 World History to 1500 or HIST 102 World History from 1500, an equivalent, or permission of instructor. May be taken for honors.

HIST 608. Women in American History. 3 hours. Changes affecting American women from 1848 to the present. May be taken for honors. Prerequisite: HIST 201 American History to 1865 or permission of instructor.

HIST 610. Modern Europe, 1500 to 1815. 3 hours. A survey of Western European History and culture from the end of the Middle Ages to the end of the Napoleonic period.

HIST 619. Kansas and the West. 3 hours. Kansas from aboriginal days to the present. Prerequisite: HIST 201 American History to 1865 and HIST 202 American History from 1865, their equivalents or permission of instructor. May be taken for honors.

HIST 620. History of the South. 3 hours. The economic, political, and social development of the American South from the colonial period to the present. Prerequisite: HIST 201 American History to 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 625. Mexico and the US Southwest. 3 hours. Cultural and political interaction between Mexico and the U.S. with emphasis on the modern era. Prerequisite: HIST 202 American History from 1865, its equivalent or permission of instructor. May be counted as World History with permission of the instructor. May be taken for honors.

HIST 626. U.S. Iraq and Afghanistan. 3 hours. A history of the U.S.-led wars in Iraq and Afghanistan. Divided into two main components, one on Iraq and one on Afghanistan, the course will focus on U.S. involvement, military, political, and cultural, in these countries as part of the broader “War on Terror”. Substantial background on both countries will be included. Prerequisite: HIST 102 World History from 1500.

HIST 636. Native Americans. 3 hours. Survey of social, cultural, and political Native American history from prehistoric to the present with an emphasis on the 19th century. Prerequisite: HIST 201 American History to 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 644. The Tudor Age. 3 hours. England’s transition to a modern nation, with emphasis on social, political, and religious changes under the Tudor monarchs, 1485 to 1603. Prerequisite: HIST 540 English History to 1660 or HIST 545 English History since 1660, either of their equivalents or permission of instructor. May be taken for honors.

HIST 645. Stuart England. 3 hours. Developing English constitutional changes under the Stuart monarchs, 1603 to 1714. Prerequisite: HIST 540 English History to 1660 or HIST 545 English History since 1660, either of their equivalents or permission of instructor. May be taken for honors.

HIST 650. Colonial America. 3 hours. Significant developments in Colonial North America, 1492-1789. Prerequisite: HIST 201 American History to 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 652. American Revolution. 3 hours. The development of the Revolution, evaluation of the Confederation period, and the writing and ratification of the Constitution. Prerequisite: HIST 201 American History to 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 655. Early American Republic, 1789-1848. 3 hours. From Washington’s first administration through the Mexican war, with emphasis on Federalists, Jeffersonian Republicans, the Era of Good Feelings, Jacksonian Democracy, and sectionalism. Prerequisite: HIST 201 American History to 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 656. Sectional Conflict and Civil War. 3 hours. Polarization and war between the North and South, 1846-1865. May be taken for honors. Prerequisite: HIST 201 American History to 1865 or permission of instructor.

HIST 657. Reconstruction and New South. 3 hours. The Civil War’s political, social, and economic consequences, 1865-1915. May be taken for honors. Prerequisite: HIST 202 American History from 1865 or permission of instructor.

HIST 660. Industrial America, 1865-1914. 3 hours. Political, economic, social, and intellectual developments during the period of industrialization. Prerequisite: HIST 202 American History from 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 662. Modern America, 1912-1941. 3 hours. Examination and analysis of major developments and controversies (in both domestic and foreign affairs) in American history from 1912 to 1941. Prerequisite: HIST 202 American History from 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 664. Modern America, 1941-1968. 3 hours. Examination and analysis of major developments and controversies (in both domestic and foreign affairs) in American history from 1941 to 1968. Prerequisite: HIST 202 American History from 1865, its equivalent or permission of instructor. May be taken for honors.
HIST 665. Modern America Since 1968. 3 hours. Examination and analysis of major developments and controversies (in both domestic and foreign affairs) in American history since 1968. Prerequisite: HIST 202 American History from 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 668. U.S. as a Superpower. 3 hours. Emergence of the U.S. as an international power in 1989 and as a superpower after World War II. Prerequisite: One course in history. May be counted as World History with permission of the instructor. Prerequisite: HIST 202 American History from 1865, its equivalent or permission of instructor. May be taken for honors.

HIST 673. American Military Experience, 1607-1898. 3 hours. Institutional development of the American/U.S. military, 1607 to 1898. Includes conduct of wars, development of doctrine, and adoption of new technologies. May be taken for honors. Prerequisite: HIST 201 American History to 1865 or permission of instructor.

HIST 674. American Military Experience, 1898 to Present. 3 hours. Institutional development of the American/U.S. military, 1898 to present. Includes conduct of wars, development of doctrine, and adoption of new technologies. May be taken for honors. Prerequisite: HIST 202 American History from 1865 or permission of instructor.

HIST 699. Senior Assessment. 1 hours. A consideration of major historical and historiographical issues for an assessment of understanding and knowledge of American and World History. Prerequisite: senior standing. Required of all graduating seniors, except BSED majors.

HIST 700. History Selected Subjects (____). 1-3 hours. Intensive study of various periods, movements, and topics in history. May be repeated since subject matter changes. May be offered on-line.

HIST 745. History Internship (____). 3 hours. Practical training in archival work, museology, or archeology, in cooperation with state or national museums or archival depositories. In addition to on-campus preparation and conclusion, involves sixty hours on-the-job experience in state or national museums or archival depositories under professional supervision. May be repeated for a maximum of 9 hours to include all three areas. Prerequisite: HIST 435 Archives and Manuscripts or permission of instructor.

HIST 805. Readings in American History (____). 1-3 hours. Intensive individual readings in limited periods and particular movements in American history. May be repeated. By appointment. May be offered on-line.

HIST 806. Readings in World History (____). 1-3 hours. Intensive individual readings in limited periods and particular movements in World history. May be repeated. By appointment. May be offered on-line.

HIST 807. Historical Research and Historiography. 3 hours. Techniques of historical research and overview of the philosophy and interpretation of history. Required on all graduate programs in history, preferably during first enrollment. May be offered on-line.

HIST 813. Seminar in American History (____). 3 hours. Intensive study of special periods or movements in American history. Prerequisite: Consent of instructor. May be repeated. May be offered on-line.

HIST 820. Seminar in World History (____). 3 hours. Intensive study of selected ideas, periods, problems, or movements in World history. Prerequisite: Consent of instructor. May be repeated. May be offered on-line.

HIST 881. Orientation to College Teaching. 3 hours. Laboratory work in the classroom situation, work with instructional aids; involvement in curriculum planning, test construction, and classroom instruction. By appointment. Prerequisite: Consent of instructor.

HIST 890. Research and Thesis. 4-6 hours. Intensive individual research and writing on selected topic. By appointment. Required of all candidates for the Master of Arts degree (Option I).

HIST 892. Final Assessment for Option III. 2 hours. Focused research in preparation for the non-thesis option comprehensive examination. Prerequisite: Completion of all other course work for Option III or permission of advisor, graduate studies director and chair.

HIST 902. Readings in History (____). 1-3 hours. Intensive individual readings in limited periods and/or particular movements in either American, European, or World history. May be repeated for a maximum of 6 hours.

HIST 910. Special Investigations (____). 1-3 hours. Independent study in selected historical subjects relevant to student interests and needs. May be repeated for a maximum of 6 hours.

Honor

HONOR 101. Topics in Honors. 1-3 hours. Includes a variety of topics depending on the particular semester it is offered. During the fall semester it will focus on the development of the Peer Mentor program organized through the Honors College Association. In years when there is an Honors College Study Abroad trip, the course will focus on the presentation of material associated with that given learning experience. Other topics may be created based on the needs of the Honors College.

HONOR 200. Special Topics (____). 3 hours. The Honors College special topics courses will include a variety of interdisciplinary course offerings whereby the student will be able to make connections between two disciplines in a single course offering, thus giving more breadth to their understanding of the curricular material presented. The specific course topics will vary from semester to semester, and all courses will fit into the PSU General Education requirements in a variety of categories. The course may be repeated since the topics will vary.

Human Resource Development


HRD 596. Introduction to Human Resource Development. 3 hours. Roles, functions, principles, and theories of employee training, learning, education, development, and performance and their relationships with other disciplines.

HRD 597. Organizational Staffing. 3 hours. Study of the concepts and processes in determining job requirements, identifying sources for and methods of recruiting employees, and the legal and effective methods for selecting the individual with the best fit for the job and organization.

HRD 598. Talent Management. 3 hours. Study of the concepts and processes in the performance management of the employees in an organization. Includes a study of the laws and regulations related to compensating and rewarding employees.

HRD 630. Employee and Labor Relations. 3 hours. Study of the concepts and processes for the fair, ethical and legal treatment of employees in an organization and in their jobs. Includes the study of employee and employer relations in grievances, union activities and collective bargaining.

HRD 706. Personnel Development in Business and Industry. 3 hours. Techniques for improving employee learning and performance from analysis and selection through relationships and rewards.

HRD 710. Seminar in Human Resource Development. 1-3 hours. Study of a particular topic, problem, or issue in human resource development. Includes class work, readings, and research with emphasis on current issues. May be repeated if subject matter is different for a maximum of six hours.

HRD 741. HRD Strategies for Quality Improvement. 3 hours. The role of human resource development in the implementation of quality improvement programs in business and industry with an emphasis on team building.

HRD 745. Designing HRD Interventions. 3 hours. In-depth study of the functional processes used for planning, designing, developing, and implementing effective HRD interventions; and the examination of common OD, T&D, and CD interventions used to solve problems in organizations. Prerequisite: HRD 596 Introduction to Human Resource Development or permission of instructor.


HRD 780. Globalization of Human Resource Development. 3 hours. A global perspective of human resource development programs and practices in other countries and cultures.

HRD 785. Video Lesson Development. 3 hours. Lesson planning and use of a storyboard. Creation of an effective lesson using contemporary video technology, computer editing, and sound tracks, and transfer of video presentations to electronic storage devices such as CD-ROM, DVD, or video cassette.

HRD 790. Occupational Analysis. 3 hours. Evolution and meaning of the analysis technique and its application to human resource development. The use of analysis in relating components of an occupation to course and program development.


HRD 799. International Workplace and Workforce Issues. 3 hours. A comparative analysis of the workplace and workforce of other countries with the United States. Emphasizes strategies that maximize the efficiency and effectiveness of organizations. Prerequisite: Permission of instructor.

HRD 804. Leadership Techniques and Procedures. 3 hours. Supervisory and leadership procedures used by experienced supervisors in business and industry, including current practices and innovative techniques.

HRD 805. Special Problems (____). 1-3 hours. Investigation of a specific topic or problem in human resource development. Prerequisite: Permission of advisor. May be repeated if subject matter is different with a maximum of six hours to be applied towards a degree program. May be taken as graded or pass-fail.

HRD 815. Current Issues in HRD. 3 hours. Readings, research, case studies, discussion, and study of current topics and issues in human resource development.
HRD 850. Graduate Study in Human Resource Development. 1 hour. Development of
career plans and goals that insure consistency in the courses, projects, reports,
and research topics within the HRD master degree. Introduces the style and format for
written and oral reports and research studies. Prerequisite: Admission to the HRD
Master Degree.

HRD 851. Career Planning in Human Resource Development. 1 hour. Development of
a career plan and a print and digital portfolio which include major written, oral, and
mediated reports and projects with an emphasis on competencies mastered.

HRD 852. Organizational Development and Change. 3 hours. Planned strategic HRD
interventions intended to improve the resources and effectiveness of the entire
organization. Current theories of organizational development, change, and systems and
strategies.

HRD 853. Workforce Development. 3 hours. Innovative methods for developing and
preparing employees for change with emphasis on problem solving that improves
quality and performance of both the organization and employees.

HRD 854. Consulting for Human Resource Development Professionals. 3 hours. The
HRD consulting role in the organization utilizing problem solving and change
management processes that improve performance and quality to keep pace with
changing world of work.

HRD 856. Diversity in the Workplace. 3 hours. Methods to increase the ability of
organizations to work successfully with workplace diversity, and procedures for
maximizing the potential of a diverse workforce for the benefits of both the individual
and organization.

HRD 857. Ethics, Values and Legal Issues in HRD. 3 hours. Examination of personal,
social, and organizational values and culture related to their effects on human resource
development ethical principles, standards, and legal issues, with an emphasis on actual
workplace situations.

HRD 879. Professional Presentations. 3 hours. Formal and informal presentations for
audiences in various industrial and organizational settings. Needs assessment, effective
presentation techniques, and audience interaction and engagement.

HRD 883. Internship in Human Resource Development. 3 hours. A supervised
internship that incorporates what a student learned in the classroom with practices in
developing individual and/or organizational learning and performance improvement
interventions. Prerequisite: Permission of instructor. Graded on a pass-fail basis.

HRD 890. Research and Thesis. 3-6 hours. Development of a thesis under Option I.
Prerequisite: Methods of Research and permission of instructor. May be repeated for a
maximum of six hours. May be taken as graded or pass-fail.

HRD 891. Methods of Research. 3 hours. Methods and techniques of research,
interpretation, evaluation, and use of research. Emphasizes analysis of problems,
development of a research plan and completing a literature review.

HRD 899. Planning and Implementing a Human Resource Development Program. 3
hours. Policies and procedures, knowledge and skills to establish, expand, or update a
human resource development program. Emphasizes strategic planning, and
administrative staffing, program and facilities planning, budgeting, project management,
and evaluation. Prerequisite: Permission of instructor.

HRD 900. Seminar in HRD. 3 hours. Planning for a research project including the
development of a prospectus for a research study with an emphasis on the study design
and methodology. May be taken as graded or pass-fail. Prerequisite: Methods of
Research and permission of advisor.

HRD 983. Practicum in Human Resource Development. 3 hours. Supervised experience
in a job based setting related to the student's area of specialization such as instructional
design or technology, teaching and facilitation, or HRD consulting or management.
Prerequisite: Permission of instructor. Graded on a pass-fail basis.

HRD 990. Special Research Problem. 3-6 hours. A research, experimental or field study
presented as a formal research project under Option I. Permission of advisor. May be
repeated for a maximum of six hours. May be taken as graded or pass-fail.

HRD 991. Special Investigations (___). 1-6 hours. Investigation of a specific topic or
problem in human resource development. Prerequisite: Permission of advisor. May be
repeated if subject matter is different with a maximum of six hours to be applied
towards an Ed.S. degree program. May be taken as graded or pass-fail.

HRD 992. Special Investigations (___). 3 hours. Independent study of a specific topic or
problem in technology management or human resource development. Emphasis is on
practical application. May be repeated if subject matter is different with a maximum of
six hours to be applied towards an Ed.S. degree program. May be taken as graded or
pass-fail. Prerequisite: Permission of advisor.

Investigation and discussion of current problems and trends in business and industry
and organizations that impact human resource development practitioners.

Intensive English Program

IEP 015. Elementary Structure and Composition. 0 hours. Students respond to and
produce questions and sentences from prompts. Students learn spelling of key words
and words associated with specific topics. Students learn basic grammatical structures
needed for forming questions and sentences in the simple present and present
progressive. Students also study pronouns, possessive adjectives, prepositions of place
and time, capitalization and punctuation and common and proper nouns.

IEP 016. Elementary Reading and Listening/Speaking. 0 hours. Students read short
texts and listen to passages and conversations for understanding of topics and
important details. Emphasis is on increasing students’ vocabulary through the study of
vocabulary associated with specific topics. Students improve their pronunciation and
spelling through phonics.

IEP 025. Pre-Intermediate Structure and Composition. 0 hours. Students respond to
and produce questions and sentences. Using prompts, students write simple paragraphs
showing basic organization. Students build on their grammatical knowledge and study
simple past tense, count/noncount nouns, expressions of quantity and units, frequency
adverbs, object pronouns and sentence structure of simple, compound and complex
sentences. Prerequisites: IEP 015 Elementary Structure and Composition and IEP 016
Elementary Reading and Listening/Speaking.

IEP 026. Pre-Intermediate Reading and Listening/Speaking. 0 hours. Students read
texts and listen to passages and conversations to identify main ideas and important
details. Students make basic inferences in reading and understand pronoun referents.
Focus continues to be on increasing students’ vocabulary through the study of
vocabulary associated with specific topics and expanding vocabulary from Elementary
Reading and Listening/Speaking topics. Students continue to improve their
pronunciation and spelling through phonics. Prerequisites IEP 015 Elementary Structure
and Composition and IEP 016 Elementary Reading and Listening/Speaking.

IEP 031. Intermediate I Structure. 0 hours. Students study questions, simple, compound
and complex sentences, and adverbs of manner. Verb tenses studied are simple past,
continuous and future. Basic infinitives and gerunds are introduced. Prerequisites:
IEP 025 Pre-Intermediate Structure and Composition and IEP 026 Pre-Intermediate
Reading and Listening/Speaking. Offered on Pass-No Credit basis only.

IEP 032. Intermediate I Composition. 0 hours. Students learn to write well organized
and supported paragraphs using descriptive and appropriate vocabulary. They write a
variety of types of paragraphs. Prerequisites: IEP 025 Pre-Intermediate Structure and
Composition and IEP 026 Pre-Intermediate Reading and Listening/Speaking. Offered on
Pass-No Credit basis only.

IEP 033. Intermediate I Reading. 0 hours. Students learn to use reading skills to aid in
understanding reading materials and to recognize a good summary of a reading passage.
Students increase their academic vocabulary and their reading speed. Prerequisites:
IEP 025 Pre-Intermediate Structure and Composition and IEP 026 Pre-Intermediate
Reading and Listening/Speaking. Offered on a pass-fail Credit basis only.

IEP 034. Intermediate II Reading/Speaking. 0 hours. Students listen to short lectures at
their level and take notes. They also learn new vocabulary and present information
orally about personal topics or topics covered in class. Prerequisites: IEP 025 Pre-
Intermediate Structure and Composition and IEP 026 Pre-Intermediate Reading and
Listening/Speaking. Offered on a pass-fail Credit basis only.

IEP 041. Intermediate II Structure. 0 hours. Students review verb tenses and add
present perfect verb tense. Students study adverbs of time, adverb clauses, adjective
clauses, gerunds and infinitives and basic article use. Prerequisites: IEP 031 Intermediate
I Structure, IEP 032 Intermediate I Composition, IEP 033 Intermediate I Reading, and IEP
034 Intermediate I Listening/Speaking. Offered on a pass-fail Credit basis only.

IEP 042. Intermediate II Composition. 0 hours. Students write a variety of types of
paragraphs demonstrating skills in organization and logical support. Using effective
transition words is taught. Students learn how to make the transition from writing
paragraphs to writing essays. Students practice writing in a limited time. Prerequisites:
IEP 031 Intermediate I Structure, IEP 032 Intermediate I Composition, IEP 033
Intermediate I Reading, and IEP 034 Intermediate I Listening/Speaking. Offered on a
pass-fail Credit basis only.

IEP 043. Intermediate II Reading. 0 hours. Students continue to use reading skills to aid
in understanding reading materials that are at a moderately difficult level containing
more complex sentence structure and vocabulary. Students increase their academic
vocabulary and learn to use study skills. Prerequisites: IEP 031 Intermediate I Structure,
IEP 032 Intermediate I Composition, IEP 033 Intermediate I Reading, and IEP 034
Intermediate I Listening/Speaking. Offered on a pass-fail Credit basis only.

IEP 044. Intermediate II Listening/Speaking. 0 hours. Students listen to lectures
appropriate to the level and take notes. Students learn new vocabulary and present
information orally about assigned topics. Prerequisites: IEP 031 Intermediate I Structure,
IEP 032 Intermediate I Composition, IEP 033 Intermediate I Reading, and IEP 034
Intermediate I Listening/Speaking. Offered on a pass-fail Credit basis only.
JUST 328. Police and Justice. 3 hours. Objectives, strategies, programs, institutional arrangements, roles, perspectives, and interagency relationships of police.

JUST 475. Community Policing. 3 hours. The development of community and problem-solving policing. Emphasis is placed on the critical issues in community policing, especially the patterns of interaction between police and the public. Prerequisite: Junior or senior standing.

JUST 480. Women, Crime, and Justice. 3 hours. A historical examination of social, economic, and legal factors that have defined violence against women, violence by women, and the role of women in the justice professions. May be taken for honors.

JUST 500. Criminal Law and Society. 3 hours. Criminal process and constitutional and legal problems associated with arrest, search and seizure, and due process of law. Criminal liability and crimes against persons, property, and society; governmental sanctions of individual conduct as formulated by legislatures and the courts. Prerequisite: Junior or senior status. May be taken for honors.

JUST 501. Criminal Procedure. 3 hours. Laws and constitutional protections that govern the criminal justice process from detection and investigation through arrest, adjudication, and punishment.

JUST 502. Criminal Profiling. 3 hours. The dynamics of human behavior as related to criminal activity. Utilizing sociological, psychological, and criminological theories, the course focuses on the analysis of the crime scene and the various characteristics of the offenders revealed by that analysis. Discusses in detail strategies employed by the FBI and state and local profilers.

JUST 518. Serial Killers. 3 hours. An examination of the phenomenon of serial killers with an emphasis on the social construction of serial murder. An investigation of theories, typologies, and case study analysis of serial killers and their victims. May be taken for honors.

JUST 521. Special Topics in Justice Studies (____). 1-3 hours. Intensive examination and analysis of selected justice topics and issues relevant to justice studies. Prerequisite: Permission of instructor. May be repeated for a maximum of 6 hours if subject varies.


JUST 528. White Collar Crime. 3 hours. Major issues in business, professional, and official rule violations. Consumer fraud, securities violations, unethical professionalism, and political corruption. May be taken for honors.

JUST 538. Philosophy of Law. 3 hours. Philosophical issues in law using actual cases as well as philosophical writings. Nature of law, judicial reasoning, rights, liberty, responsibility, and punishment. May be taken for honors.

JUST 591. Native American Sovereignty and the Law. 3 hours. Use of Native American case law to explore the dynamics of Indian sovereignty from the Doctrine of Discovery in the 16th century to contemporary politics of tribal self-determination, including federal Indian law cases and the Wounded Knee trials. May be taken for honors.

JUST 671. Internship. 3 hours. Assignments in a justice-related placement designed to further the student’s integration of theory and practice. Internships are arranged with advisor. Graded on pass-fail basis.

JUST 695. Senior Seminar in Justice Issues. 3 hours. Comprehensive analysis of selected justice concepts and issues with an emphasis on a capstone research project and portfolio.

JUST 698. Directed Readings in Justice Studies. 3 hours. Individual study and research in selected areas of Justice Studies. May be repeated for a maximum of six hours. Prerequisite: Permission of instructor.

Leadership

LDSP 201. Seminar (____). 1-3 hours. Individual study [research, project, or field-based orientation]. May be repeated using different topics. Requires acceptance into Emerging Leaders Program or permission of instructor.

LDSP 501. PELP Phase IV Community Internship. 1-3 hours. Perform internship in field of study; work with mentor in identifying how to mesh professional, personal, and civic responsibility. Maintain journal to relate experience to leadership lessons learned in LDSP 201 Seminar (____). Prerequisite: Must be a senior.

LDSP 600. Foundations of Leadership. 3 hours. Emphasizes leadership theory, leadership styles, problem-solving, resolving conflict, nurturing change within organizations, decision-making styles, small group facilitation, and systems thinking. Students will engage in field work which will include observations of leaders and experience in taking leadership roles. During the course, students will begin compiling a leadership portfolio that they will add to throughout their leadership minor experience. Prerequisite: declared as leadership minor or permission of instructor.

International Studies

INT 505. Topics in International Studies (____). 3 hours. A special topic class that explores a selected international issue or topic in depth. The class may be repeated if the topic is different. Permission of instructor.

INT 510. Readings in International Studies. 1-3 hours. Directed readings in a selected topic in International Studies. May be repeated for a total of six hours if the topics are different. Permission of instructor.

INT 690. Study Abroad (____). 3-6 hours. An academically based foreign travel experience. Combines academic course work, travel and cultural immersion. May be repeated if country/region visited is different. Permission of instructor.

INT 695. Internship/Practicum. 3 hours. Supervised work experience or independent project whose major emphasis is on international matters. Students may work directly with a business, governmental agency, non-governmental organization, foundation or labor union, or they may be assigned work such an organization has requested. Permission of instructor.

INT 699. Senior Seminar in International Studies. 3 hours. A capstone course for International Studies majors and minors. Focuses on the application of principles, skills and information in the analysis of contemporary international issues. Permission of International Studies Director.

Justice Studies

JUST 104. Introduction to the Justice System. 3 hours. Roles of law enforcement personnel, the courts, and correctional agencies. Philosophical and theoretical views in historical perspective.

JUST 109. Principles of Justice Studies. 3 hours. The nature of justice, how justice is linked to power, ideology, social control, social change. Generative themes in various dimensions of justice such as social and economic justice, gender, race and criminal justice.

JUST 223. Basic Interviewing and Counseling Skills. 3 hours. The role and purpose of accepted interviewing techniques and their application to counseling, interrogation, and other social situations.

JUST 322. Ethics and Justice Policy. 3 hours. Ethical theories and their application to principles of justice, law, and social policies.
LDSP 601. Service Learning Seminar. 1 hours. Students will either plan and implement a project that provides service to the community or students will take a leadership role in an existing service learning project. Students will keep a reflective journal of their leadership activities, noting the connections between their practice of leadership and the content of their leadership minor courses. Prerequisite: completion of LDSP 600 Foundations of Leadership or concurrent enrollment.

LDSP 602. Leadership Seminar. 2 hours. Emphasizes the application of leadership skills within the student’s chosen career setting. Students will engage in at least 10 hours field work which will include observations of leaders in a chosen career setting and experience in taking leadership roles within that same career setting. Students will also complete their leadership portfolio begun in the Foundations of Leadership course. Prerequisite: completion of LDSP 600 Foundations of Leadership and completion of at least 15 hours of leadership minor courses or permission of the instructor.

LDSP 800. Educational Leadership I. 3 hours. First course for both those who wish to obtain licensure as a building leader and those who do not wish to obtain licensure but wish to earn the Masters in Educational Leadership. Course covers programs and models of leadership, oral and written communication, problem-solving, decision-making, meeting management, and conflict management. Includes at minimum 16 hours of field work. Course often bundled/combined with TCHL 891 Methods of Research.

LDSP 801. Educational Leadership II. 3 hours. Middle phase course for both those who wish to obtain licensure as an administrator and those who do not wish to obtain licensure. Course covers nurturing change, school climate, securing and working effectively with school staff, home/school/community relationship, and the financial aspects of public education. Includes 16 hours of field work. Prerequisite: LDSP 800 Educational Leadership I or permission of instructor. Course often bundled/combined with LDSP 863 Supervision of Instruction.

LDSP 809. Legal Foundations of Public Education. 3 hours. Basic legal provisions affecting education that are of interest and significance to educators and lay citizens. Course often bundled/combined with LDSP 855 Administration and Supervision of Special Education.

LDSP 835. Elementary and Middle School Curriculum. 3 hours. Focuses upon past and present curriculum design for elementary and middle school students. Emphasis is given to the establishment of goals and objectives, the assessment of needs, and the selection and organization of content, activities, and evaluation practices. Prerequisite: TCHL 834 Curriculum Development. Often bundled/combined with LDSP 847 The Principalship.

LDSP 836. Secondary School Curriculum. 3 hours. This course focuses on past and present curriculum design for adolescents. Emphasis is given to the establishment of goals and objectives, the assessment of needs and the selection and organization of content, activities and evaluation practices. Articulation between the middle level and high school will also be considered. Prerequisite: TCHL 834 Curriculum Development. Often bundled/combined with LDSP 847 The Principalship.

LDSP 845. School Leadership Internship I. 2 hours. A supervised post-degree internship for licensure for school building leaders in their first semester (if full-time) or first year (if part-time) of employment as a school building administrator. The intern will implement a school improvement plan and an individual leadership plan, providing both quantitative and qualitative data to demonstrate the progress of the school in improving student learning. Prerequisites: verification of current conditional school leadership license and verification of current employment as a school leader/administrator (full-time or part-time) in a state accredited school.

LDSP 846. School Leadership Internship II. 2 hours. A supervised post-degree internship required for licensure for school building leaders in their second semester (if full-time) or second year (if part-time) of employment as a school building administrator. The intern will continue to implement a school improvement plan and an individual leadership plan begun in SSSL 845 School Leadership Internship I and will continue providing both quantitative and qualitative data to demonstrate the progress of the school in improving student learning. Prerequisites: verification of current conditional school leadership license and verification of current employment as a school leader/administrator (full-time or part-time) in a state accredited school. Successful completion of SSSL 845 School Leadership Internship I.

LDSP 847. The Principalship. 3 hours. Focuses on the role of management skills necessary for effective leadership at the building level. Management skills to be taught will include instructional leadership styles, responsibilities of staff development, uses of organizational theory, decision-making processes, allocation of resources at the building level and administration of curricular activities. Includes differentiated content for persons seeking licensure at either elementary or secondary level. In at least 10 hours field work which will include observations of leaders in a chosen career setting and experience in taking leadership roles within that same career setting. Students will also complete their leadership portfolio begun in the Foundations of Leadership course. Prerequisite: completion of LDSP 600 Foundations of Leadership and completion of at least 15 hours of leadership minor courses or permission of the instructor.

LDSP 853. Change Processes and Professional Development. 3 hours. An intensive study of the theoretical and practical aspects of professional development and the elements involved in it. Emphasis will be placed on the relationships among staff, the change process, and the improvement of programs. Emphasis is also on the familiarity with the major characteristics of adulthood, which affects the adult as a learner. Prerequisite: Admission to Ed.S. program.

LDSP 863. Supervision of Instruction. 3 hours. A study of the principles and techniques necessary for coordinating, monitoring, and improving the educational programs of elementary and secondary schools. Emphasis is on techniques of effective supervision and evaluation which promotes the professional growth of teachers. Often bundled/combined with LDSP 801 Educational Leadership I.

LDSP 874. Educational Policy Making and Reform. 3 hours. An analysis of patterns of influence, organizations, and governmental agencies which impact education at the community level. Focuses on the analysis of policy development process and the relationship of policy to administration. Prerequisite: Admission to Ed.S. program or consent of the instructor.

LDSP 888. Foundations of Education. 3 hours. A study of how philosophy, history, sociology, and psychology undergirds the beliefs and choices that influence the aims, purposes, curriculum, teaching, and administrative styles in education.

LDSP 893. Practicum in Educational Leadership I - Building Level Administration. 3 hours. One of two capstone courses in the Masters in Educational Leadership program. Individual field work in various organizational settings suitable for the development of leadership skills through mentoring relationships. While enrollment is within a semester framework, the work required for the practicum will require two semesters of activity. Admission by application only. Pass-No Credit.

LDSP 894. Practicum in Educational Leadership II - Building Level Administration. 3 hours. One of two capstone courses in the Masters in Educational Leadership Program. The focus of this practicum is data based decision making. Within this context the student will collect data, analyze data and interpret the results of the data analyses. While enrollment is within a semester framework, the work required for the practicum generally requires two semesters of activity. Admission by application only. Pass-No Credit.

LDSP 901. Educational Systems Leadership I. 3 hours. This course focuses on the following domains of leadership including the skills, responsibilities, opportunities and problems in each domain; Policy and Governance, Curriculum Planning and Development, Instructional Leadership, Pupil Service Leadership, Educational Facilities and Legal Aspects in each of the previously mentioned areas.

LDSP 902. Educational Systems Leadership II. 3 hours. This course focuses on the following domains of leadership including the skills, responsibilities, opportunities and problems in each domain; Organizational Leadership, Human Resources Leadership, Values and Ethics of Leadership, Communications and Community Relations, Business Leadership, and Legal Aspects in each of the previously mentioned areas.

LDSP 903. Educational Systems Leadership III. 3 hours. This course focuses on the following domain of leadership including the skills, responsibilities, opportunities and problems in the domain of district leadership and cultures.

LDSP 941. District Leadership Internship I. 2 hours. A supervised post-degree internship for licensure for District level leaders in their first semester (if full-time) or first year (if part-time) of employment as a school district level administrator. The intern will implement a district-wide improvement plan and an individual leadership plan, providing both quantitative and qualitative data to demonstrate the progress of the plan in improving student learning.

LDSP 942. District Leadership Internship II. 2 hours. A supervised post-degree internship for licensure for district level leaders on their second semester (if full-time) or second year (if part-time) of employment as a school district level administrator. The intern will continue to implement a district-wide improvement plan and an individual leadership plan, providing both quantitative and qualitative data to demonstrate the progress of the plan in improving student learning.

LDSP 996. Internship: (____) 1-6 hours. Supervised field experience in administration and supervision. May be repeated for a maximum of 6 hours. Admission by application only. Pass-No Credit.

LDSP 997. Practicum Educational Systems Leadership I. 3 hours. Supervised field experiences and seminars in administration and supervision particular to the late summer/fall school semesters. Admission by permission only. Pass-No Credit. (Fall only).

LDSP 998. Practicum: Educational Systems Leadership II. 3 hours. Supervised field experiences and seminars in administration and supervision particular to the late spring-early summer school semester. Admission by permission only. Pass-No Credit. (Spring only).
Mathematics

MATH 017. Elementary Algebra. 3 hours. A beginning course in algebra designed to prepare the student for MATH 019 Intermediate Algebra. Offered on a Pass-No Credit basis only. Not counted toward the total hours required for a degree.

MATH 019. Intermediate Algebra. 4 hours. Designed to prepare the student for Math 110 College Algebra with Review. Not counted toward the total hours required for a degree.

MATH 110. College Algebra with Review. 5 hours. (Only 3 hours count toward a degree). Operations with algebraic expressions; linear and quadratic functions; graphs of polynomial and rational functions; systems of equations; logarithmic and exponential functions; arithmetic and geometric progressions; permutations and combinations. Slower paced than MATH 113 College Algebra, but covers the same material. Not recommended for those having four years of high school mathematics, including two units of algebra, one unit of geometry, and one-half unit of advanced or senior mathematics. Closed to students with a grade of "C" or better in MATH 019 Intermediate Algebra or two units of high school algebra.

MATH 113. College Algebra. 3 hours. Operations with algebraic expressions; linear and quadratic functions; graphs of polynomial and rational functions; systems of equations; logarithmic and exponential functions; arithmetic and geometric progressions; permutations and combinations. Not recommended for those having four years of high school mathematics, including two units of algebra, one unit of geometry, and one-half unit of advanced or senior mathematics. Closed to students with credit in MATH 110 College Algebra with Review or MATH 126 Pre-Calculus or MATH 153 Introduction to Analytic Processes, or students with a letter grade of "C" or better in MATH 150 Calculus I. Prerequisite: Grade of "C" or better in MATH 019 Intermediate Algebra or two units of high school algebra.

MATH 114. Elements of Technical Analysis. 3 hours. Basic mathematics for technology students. Special emphasis on units of measurement, accuracy, use of calculators, beginning algebra, solutions of equations, use of graphs. Open only to candidates for the Associate of Applied Science degree. Closed to students with credit in MATH 113 College Algebra.

MATH 122. Plane Trigonometry. 3 hours. The trigonometric functions; solutions of right and oblique triangles; identities; properties of circular functions; and complex numbers; applications. Prerequisite: MATH 110 College Algebra with Review or MATH 113 College Algebra. Closed to students with credit in MATH 126 Pre-Calculus.

MATH 126. Pre-Calculus. 4 hours. Pre-Calculus properties of the real number system, limits, functions, continuity, trigonometry, and graphics. Not open to students with credit in MATH 113 College Algebra, MATH 114 Elements of Technical Analysis, MATH 122 Plane Trigonometry, MATH 150 Calculus I, or MATH 153 Introduction to Analytic Processes. Prerequisite: Two units of high school algebra and trigonometry or permission of instructor.

MATH 133. Quantitative Reasoning. 3 hours. Designed for the students NOT planning to major in a field that requires advanced mathematical skills. Prepared students for the mathematics encountered in other college courses that use quantitative reasoning. Emphasis on developing critical thinking and quantitative reasoning skills needed to understand major issues in society. Prerequisite: MATH 019 Intermediate Algebra or one unit of high school algebra.

MATH 143. Elementary Statistics. 3 hours. Basic concepts of statistics and probability applicable to all disciplines. Topics include data analysis, probability, discrete and continuous distributions, sampling, and statistical inference. Not open to students with credit in MATH 543 Probability and Statistics. Prerequisite: MATH 019 Intermediate Algebra or one unit of high school algebra.

MATH 150. Calculus I. 5 hours. Students with credit in MATH 153 Introduction to Analytic Processes receive only 3 hours credit. Functions, limits, derivatives and integrals. Applications to science, business, and technology. Prerequisite: MATH 126 Pre-Calculus, or MATH 122 Plane Trigonometry and MATH 110 College Algebra with Review, or MATH 122 Plane Trigonometry and MATH 113 College Algebra, or permission of instructor. You must have a grade of C or higher in all courses used to meet this requirement.

MATH 153. Introduction to Analytic Processes. 3 hours. Topics in differential and integral calculus and linear algebra for business applications. Closed to students with credit in MATH 150 Calculus I. Prerequisite: Grade of C or higher in MATH 110 College Algebra with Review or MATH 113 College Algebra or MATH 126 Pre-Calculus.

MATH 155. Calculus II. 5 hours. Continuation of MATH 150 Calculus I. Differentiation and integration techniques, transformations, polar coordinates, conics, transcendental functions, series and vectors. Prerequisite: Grade of C or higher in MATH 150 Calculus I or permission of instructor.

MATH 170. Mathematical Explorations. 1-3 hours. Directed class or seminar at the beginning college level. May be repeated.

MATH 204. Mathematics for Education I. 3 hours. Prepares prospective elementary and middle school teachers to know, understand, and use the basic principles and concepts of mathematics. These will include problem solving strategies, functions, sequences, set theory, probability theory, and statistics concepts. Closed to students with credit in MATH 150 Calculus I except students who are seeking a Bachelor of Science in Education degree.

MATH 212. Matrix Algebra. 2 hours. Algebra of matrices, determinants, the inverse and rank of a matrix, linear vector space concepts, and eigenvalues. Linear programming. Prerequisite: MATH 110 College Algebra with Review or MATH 113 College Algebra or MATH 126 Pre-Calculus.

MATH 253. Calculus III. 3 hours. Continuation of MATH 155 Calculus II. Vectors, solid analytic geometry, multivariable and vector calculus, and multiple integration. Prerequisite: MATH 155 Calculus II.

MATH 304. Mathematics for Education II. 3 hours. Prepares prospective elementary and middle school teachers to know, understand, and use the basic principles and concepts of mathematics involving the properties of whole numbers, integers, rational numbers, and real numbers and the fundamental models for their operations. Additionally, topics in measurement, and geometric concepts, such as properties of two and three-dimensional shapes, congruency, similarity, and transformations will be explored. Grade of "C" or higher in MATH 204 Mathematics for Education I.

MATH 307. Geometry for Education. 3 hours. An introduction to geometry concepts from an informal, intuitive approach. Exploration of geometry from a historical, Euclidean point of view, incorporating concepts in both two and three dimensions. The development of the measurement system, to include both customary and metric systems. Transformations of two-dimensional objects through reflections, rotations, and translations. Integrated throughout the course will be a focus on the diverse cultures that have contributed to Mathematics and Geometry in particular. Includes hands-on activities and technologies such as dynamic software, graphing calculators, and the Internet. Prerequisite: C or better in MATH 204 Mathematics for Education I or C or better in both MATH 143 Elementary Statistics and MATH 126 Pre-Calculus.

MATH 343. Introductory Applied Statistics. 3 hours. Basic concepts of statistics and probability. Topics include sampling techniques, summary statistics, probability, discrete and continuous distributions, sampling distributions, introduction to design or experiments, exploring bivariate data, and parametric and nonparametric statistical inference. Prerequisite: MATH 110 College Algebra with Review or MATH 113 College Algebra.

MATH 407. Cultural Mathematics. 1 hour. A look at the development and role of mathematics in a variety of cultures, including key moments in the history of mathematics, contributions of selected individuals, and contributions of different cultures in the historical development of mathematics. Prerequisite/Corequisite: MATH 204 Mathematics for Education I.

MATH 471. Manipulatives for Teaching Mathematics. 1 hours. The use of mathematical manipulatives in teaching. Manipulatives to include geoboards, algebra tiles, and Miras. Prerequisite: Admission to teacher education.

MATH 472. Calculators in Teaching Mathematics. 1 hours. Uses of graphing calculators in teaching. Programming activities on the calculator will be explored. Prerequisite: Admission to teacher education.

MATH 473. Mathematical Software. 1 hours. Uses of mathematical software in teaching. Activities using current software packages will be explored. Prerequisite: Admission to teacher education.

MATH 479. Techniques for Teaching Mathematics. 1-3 hours. Techniques, methods, and course content used in teaching mathematics in the secondary school. Offered by the Department of Mathematics. Concurrent, one hour weekly departmental tutorial service required. To be taken before the professional semester. Demonstrable skill at the College Algebra level is required for passing the class. Prerequisite: Admission to teacher education and PSYCH 357 Educational Psychology. Corequisite: MATH 480 Clinical Experience in Secondary Mathematics Teaching. May be taken for honors.


MATH 503. Introduction to Advanced Mathematical Concepts for Education. 3 hours. This course is an introduction into advanced topics in mathematics including concepts of: matrices, discrete and continuous functions, calculus, and graph theory. The topics will be introduced using appropriate technology. Prerequisite: MATH 126 Pre-Calculus, MATH 472 Calculators in Teaching Mathematics, and MATH 473 Mathematical Software.

MATH 513. Discrete Structures. 3 hours. Elements of propositional logic, sets, algorithms, number theory, proofs, counting, mappings, relations, trees, graphs, digraphs, and Boolean algebra. May be taken for honors.

MATH 543. Probability and Statistics. 3 hours. Probability theory, random variables, discrete and continuous distributions and density functions, mathematical expectation, moment generating functions. Prerequisite: MATH 155 Calculus II. May be taken for honors.
MATH 553. Differential Equations. 3 hours. Standard types of ordinary equations of the first and second order, linear equations with constant coefficient solution by series, and applications to geometry and physical science. Prerequisite: MATH 253 Calculus III and MATH 212 Matrix Algebra. Offered spring semester.

MATH 557. Analysis I. 3 hours. A proof-oriented treatment of the real number system, sequences, the topology of real numbers, continuous functions, differentiation, and integration. Prerequisites: MATH 253 Calculus III. May be taken for honors. Offered fall semester.


MATH 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required.


MATH 617. Linear Algebra. 3 hours. Vector spaces including basic properties, subspaces, bases and dimension; linear transformations including kernels, images, and change of basis; determinants; eigenvalues and eigenvectors; diagonalization of matrices; and a selection of applications. Students will be required to provide numerous proofs as part of the course. Offered concurrently with MATH 717 Linear Algebra. Prerequisite: MATH 212 Matrix Algebra and MATH 513 Discrete Structures. May be taken for honors. Offered spring semester.

MATH 627. Linear Optimization Models. 3 hours. Simplex algorithm. Topics such as duality, revised and dual simplex algorithms, sensitivity analysis, transportation and assignment problems, network and flows. Prerequisite: MATH 212 Matrix Algebra or MATH 617 Linear Algebra. May be taken for honors. Offered concurrently with MATH 727 Linear Optimization Models. Offered fall semester.

MATH 635. The Geometry of Space-Time. 3 hours. Definition of (n+1) space-time. Development of the Minkowski inner product as a means of preserving Maxwell's Equations. Geometric applications to the Special Theory of Relativity. Isometries of Minkowski space-time. Offered concurrently with MATH 735 The Geometry of Space-Time. Prerequisite: Prerequisite or corequisite MATH 253 Calculus II.

MATH 636. Basic Concepts of Geometry. 3 hours. Elementary geometry from an advanced standpoint with emphasis on structure and proof. Metric and synthetic approaches to two- and three-dimensional Euclidean geometries; constructions; and non-Euclidean geometries. Prerequisite: MATH 513 Discrete Structures. May be taken for honors. Offered spring semester.


MATH 646. Statistical Methods I. 3 hours. Applied statistics, methods of estimation and tests of hypotheses, categorical data, introduction to analysis of variance, correlation, regression, and experimental design. Prerequisite: MATH 543 Probability and Statistics. Offered concurrently with MATH 746 Statistical Methods I. May be taken for honors. Fall, odd numbered years.

MATH 656. Mathematical Modeling. 3 hours. Problems arising from areas and disciplines other than mathematics. Description of the problem at its source, analysis of the key factors and simplifying assumptions, presentation of the problem in a tractable form, solution and testing of the selected model. Prerequisite: MATH 155 Calculus II and MATH 212 Matrix Algebra. May be taken for honors. Offered fall semester.

MATH 658. Financial Mathematics. 3 hours. Mathematics of simple and compound interest, time value of money, annuities, cash flow analysis, loans, bonds, options, forwards, futures, swaps, hedging strategies, and risk management. Prerequisite: MATH 155 Calculus II. Spring.

MATH 670. Topics in Mathematics: (____). 1-3 hours. Directed class or seminar study at the undergraduate level. May be repeated. May not be taken for graduate credit. Prerequisite. Permission of instructor. A pass/fail grading system may be used.

MATH 673. Seminar: Actuarial Exam Number 1. 1 hours. Directed reading, problem solving, and student presentations with the purpose of preparing students for the first actuarial examination. Must score at least a “4” on Exam 1/2 administered by the Society of Actuaries and the Casualty Actuarial Society. Offered on a Pass-Fail basis only.

MATH 674. Seminar: Actuarial Exam Number 2. 1 hours. Directed reading, problem solving, and student presentations with the purpose of preparing students for the second actuarial examination. Must score at least a “4” on Exam 2/3 administered by the Society of Actuaries and the Casualty Actuarial Society. Offered on a Pass-Fail basis only. Pre-requisite or Co-requisite: MATH 658 Financial Mathematics.


MATH 687. Reading in Mathematics. 1-3 hours. Directed reading for superior undergraduate students. May be repeated for a maximum of 3 hours. Prerequisite: Permission of instructor.

MATH 699. Senior Seminar. 1 hours. Activities include: student presentations, review of major courses, and assessment. Required of all senior mathematics majors, both teaching and non-teaching. Should be taken the senior year.

MATH 705. Topics in Elementary Mathematics (____). 1-3 hours. Topics relevant to the elementary classroom will be developed in laboratory or seminar setting. May be repeated if topic is different. A maximum of 3 hours credit can be applied toward a degree. Prerequisite: Elementary teaching experience.


MATH 717. Linear Algebra. 3 hours. Vector spaces including basic properties, subspaces, bases and dimension; linear transformations including kernels, images, and change of basis; determinants; eigenvalues and eigenvectors; diagonalization of matrices; and a selection of applications. Students will be required to provide numerous proofs as part of the course. Prerequisite: MATH 212 Matrix Algebra and MATH 513 Discrete Structures. Offered concurrently with MATH 617 Linear Algebra. May be taken for honors. Spring.


MATH 727. Linear Optimization Models. 3 hours. Simplex algorithm. Topics such as duality, revised and dual simplex algorithms, sensitivity analysis, transportation and assignment problems, network and flows. Prerequisite: MATH 212 Matrix Algebra. Offered concurrently with MATH 627 Linear Optimization Models. May be taken for honors.

MATH 728. Mathematics of Financial Derivatives. 3 hours. Introduction to financial derivatives, binomial options, stochastic calculus, the Black-Scholes model, Delta-hedging, exotic options, and other related topics. Prerequisite: MATH 543 Probability and Statistics. May be taken for honors. Spring.

MATH 733. Topology. 3 hours. Topological structures: Open sets, neighborhoods, closed sets, subspaces, product spaces, quotient spaces; separation axioms; limits and continuity, filters and sequences; compactness and connectedness; computability axioms and separability; metric spaces. May be taken for honors.


MATH 746. Statistical Methods I. 3 hours. Applied statistics, methods of estimation and tests of hypotheses, categorical data, introduction to analysis of variance, correlation, regression, and experimental design. Prerequisite: MATH 543 Probability and Statistics. Offered concurrently with MATH 646 Statistical Methods I. May be taken for honors.
MATH 749. Time Series Analysis. 3 hours. Autocorrelation, moving averages, smoothing methods, multiple regression, regression of time series data, and ARIMA methodology. Prerequisite: MATH 543 Probability and Statistics.


MATH 757. Analysis II. 3 hours. A theoretical treatment of the calculus of several variables. Implicit function theorem and inverse function theorem. Prerequisite: MATH 557 Analysis I. May be taken for honors. Offered spring semester.


MATH 763. Numerical Linear Algebra. 3 hours. Numerical linear algebra: Gaussian elimination, orthogonal transformations, least squares, algebraic eigenvalue problem, iterative methods, numerical solution of partial differential equations. Prerequisites: MATH 212 Matrix Algebra or MATH 617 Linear Algebra. May be taken for honors. Offered spring semester.

MATH 770. Topics in Mathematics (___). 1-3 hours. Directed class or seminar study. May be repeated if topics are different. A maximum of six hours can be applied toward a degree. Prerequisite: Permission of instructor.

MATH 773. Expository Mathematics: (___). 0.5-6 hours. Analysis and synthesis of expository mathematics. Role of key mathematical concepts, teaching techniques, and/or learning devices in modern mathematics. May be repeated for a maximum of 6 hours.

MATH 813. Algebra I. 3 hours. Theory of rings and modules; polynomial rings, homomorphisms, quotient rings, ideals, rings of fractions, integral domains, and modules. Prerequisite: MATH 613 Abstract Algebra.

MATH 836. Advanced Geometry. 3 hours. Development of non-euclidean geometries and advanced Euclidean topics.

MATH 840. Topics in Statistics (___). 1-3 hours. Directed class or seminar study. Prerequisite: Permission of instructor. May be repeated for a maximum of 6 hours.

MATH 853. Functions of a Complex Variable. 3 hours. General theory of analytic functions, conformal representation and mapping, trigonometric and hyperbolic functions, expansions in power series, definite integrals, and calculus of residues. Prerequisites: MATH 557 Analysis I and permission of instructor.


MATH 863. Seminar in Mathematics (___). 1-6 hours. Intensive study in a selected area of mathematics. May be repeated for a maximum of 6 hours.

MATH 870. Topics in Mathematics: (___). 1-3 hours. Directed class or seminar study. May be repeated if topics are different. A maximum of 6 hours can be applied toward a degree. Prerequisite: Permission of instructor.

MATH 871. Seminar: Teaching of Mathematics. 1-3 hours. Problems in teaching modern concepts; trends and curriculum changes; evaluation of student progress. Prerequisite: Permission of instructor. May be repeated for a maximum of 3 hours.

MATH 880. Advanced Reading in Mathematics. 1-3 hours. Directed reading. May be repeated for a maximum of six hours. Prerequisite: Permission of instructor.

MATH 890. Research and Thesis. 1-5 hours. A total of 3-5 hours credit is required. May be repeated for a maximum of 5 hours.

MATH 891. Research Problem. 1-5 hours. A total of 3-5 hours credit is required. May be repeated for a maximum of 5 hours.

Mechanical Engineering Technology

MECET 121. Engineering Graphics I. 3 hours. Introduction to fundamental principles of graphic communication. Use of computer aided design software to produce 2-D sketches, 3-D geometry, and dimensioned 2-D orthographic views, and use of manual methods for sketching.

MECET 220. Statics. 3 hours. (3 hours lecture). Study of forces acting on rigid bodies at rest. Vectors, couples, equilibrium, distributed forces, geometric properties, beam analysis, and friction. Prerequisites: PHYS 100 College Physics I and PHYS 130 Elementary Physics Laboratory I. Prerequisite or corequisite: MATH 150 Calculus I or equivalent.

MECET 226. Computer Aided Design. 3 hours. Use of computer aided design software to generate complex 3-D geometry and communicate detail design information, dimensioning and tolerancing, surface finish, etc. Prerequisite: MECET 121 Engineering Graphics I or equivalent.


MECET 420. Kinematics. 2 hours. (2 hours lecture). Motion, forces, and mechanisms that produce motion in a mechanical system. Calculation of displacement, velocity, and acceleration of machine elements using graphics, mathematical and computer assisted methods. Prerequisites: MECET 121 Engineering Graphics I or MGFT 160 Manufacturing Graphics and MECET 220 Statics or PHYS 220 Engineering Mechanics I-Static. May be taken for honors.

MECET 423. Mechanics of Materials. 3 hours. (3 hours lecture). Principles of mechanics as applied to the strength and stiffness of engineering materials. Topics include stress, strain, properties of loaded structures, and methods of predicting failure. Prerequisite: MECET 220 Statics or equivalent. Corequisite: MECET 424 Mechanics of Materials Laboratory. May be taken for honors.

MECET 424. Mechanics of Materials Laboratory. 1 hours. (2 hours laboratory). Laboratory activities designed to verify the properties of engineering materials using standard testing equipment and procedures. Testing of materials in tension, compression, shear, torsion, and bending in accordance with ASTM standards. Individual laboratory reports requiring the use of manual and computer assisted data collection and analysis techniques. Prerequisite or corequisite: MECET 423 Mechanics of Materials or equivalent.

MECET 428. Thermodynamics. 3 hours. Heat, temperature, laws of thermodynamics and their applications. Includes software simulations and project work to apply thermodynamic theories. May be taken for honors. Prerequisite: PHYS 100 College Physics I or PHYS 104 Engineering Physics I.

MECET 522. Dynamics. 3 hours. Study of forces acting on rigid bodies in motion. Kinematics and kinetics of particles, systems of particles, dynamics of machines and vibrations. Forces and acceleration analysis using Newton's second law and energy and momentum methods. Includes software simulations of impact, vibration, etc. Prerequisite: MECET 220 Statics. May be taken for honors.

MECET 523. Mechanical Design I. 3 hours. (3 hours lecture). Principles for selecting and interfacing standard mechanical system components. Topics include tolerance analysis, fasteners, shafts, couplings, brake, clutches, gears, belt and chain drives, bearings, seals, cams, motors, and other power transmission components. Extensive use of engineering handbooks, vendor catalogs, and computer software. Prerequisite: MECET 423 Mechanics of Materials or equivalent. May be taken for honors.

MECET 524. Fluid Mechanics. 3 hours. (3 hours lecture). Elementary fluid mechanics. Manual and computer assisted calculation of viscosity, flow, pressure and pressure-velocity relationships of fluid to design fluid power systems or control manufacturing processes. Emphasis on the selection of valves, accumulators, actuators, seals, pumps, and motors. Prerequisite: PHYS 100 College Physics I or PHYS 104 Engineering Physics I and PHYS 130 Elementary Physics Laboratory I. Corequisite: MECET 525 Fluid Mechanics Laboratory. May be taken for honors.

MECET 525. Fluid Mechanics Laboratory. 1 hours. (2 hours laboratory). Laboratory activities designed to verify the principles of fluid mechanics. Topics include pressure and flow measurements, friction losses, pump performance, and use of computer software and laboratory equipment to gather data and write formal laboratory reports. Prerequisite or corequisite: MECET 524 Fluid Mechanics or equivalent.

MECET 528. Computer Aided Modeling. 3 hours. Study of modeling methods to support secondary operations in design, manufacturing and product communication. Prerequisite: MECET 226 Computer Aided Design. May be taken for honors.

MECET 623. Mechanical Design II. 3 hours. (3 hours lecture). Design of shafting, springs, fasteners, belts, clutches, brakes, chains, bearings, and gears. Emphasis is placed on the manual and computer aided design of individual machine elements in accordance with ASME codes and other industrial standards. Prerequisite: MECET 523 Mechanical Design I or equivalent.

MECET 682. Heat Transfer. 3 hours. (3 hours lecture). Principles of heat transfer including conduction, convection, and radiation involved with materials and processing techniques. Manual and computer assisted calculations with applications in manufacturing. Closed to students with credit in ETECH 682 Thermodynamics and Heat Transfer. Prerequisite: MATH 150 Calculus I. Prerequisite or corequisite: ETECH 524 Fluid Mechanics I. May be taken for honors.
Manufacturing Engineering Technology

MFGET 160. Manufacturing Graphics. 3 hours. (3 hours lecture). Introduction of design process 3D CAD, utilizing CATIA Software. Emphasis on creation of basic surface and solid models. Includes Boolean Union, difference and intersection techniques to enable the creation of more complex components from the basis surface and solid models.

MFGET 162. Welding Processes and Procedures. 3 hours. (3 hours lecture with open laboratory). This is an introductory course providing technical information on gas metal, flux core, plasma, and gas tungsten arc welding techniques employed by the welding industry. Techniques in weld inspection, NDE processes, semi-automatic and manual welding as well as plasma arc and oxy-fuel cutting.

MFGET 261. Computer Aided Part Design. 3 hours. (3 hours lecture with open laboratory). Advanced CAD course with emphasis on creation of models to support rapid prototyping. CNC manufacturing processes and mold making. Includes complex surfaces (NURBS, polygon meshes) in the trimming and joining to create complex parts. Utilizing the parts created to design and draw mold cavities from which parts can be molded. CATIA CAD software is utilized in this class. Prerequisite: MFGET 160 Manufacturing Graphics or other applicable 3D modeling class.


MFGET 268. Manufacturing Methods I Laboratory. 1 hours. (2 hours laboratory). Laboratory experiences in manufacturing methods. Disassembly and fabrication problems and discussion on the manufacturing process. Small team projects. Corequisite: MFGET 263 Manufacturing Methods I.

MFGET 363. Principles of Tool Design. 3 hours. (3 hours lecture, with open laboratory). General methods of tool design with emphasis on jigs and fixtures. Enables the student to develop ideas into practical specifications for modern manufacturing methods. Prerequisites: MECE 226 Computer Aided Design or MFGET 261 Computer Aided Part Design or equivalent. MFGET 263 Manufacturing Methods I and MFGET 268 Manufacturing Methods I Laboratory or equivalent. Note: White this is not a CAD class the student is expected to be able to design and complete tool designs utilizing one of the modern 3D CAD systems (CATIA, Pro/E, SolidWorks, AutoCad, etc.)

MFGET 367. Manufacturing Methods II. 4 hours. (2 hours lecture, 4 hours laboratory). Emphasis on applied manufacturing methods found in industry. Measuring tools, hand tools, and machine tools will be used to construct projects from student drawings. Metrology tools and inspection techniques will be covered. Prerequisites: MFGET 263 Manufacturing Methods I, MFGET 268 Manufacturing Methods I Laboratory and a CAD course.

MFGET 405. Quality Control. 3 hours. (3 hours lecture). Dr. Deming's concepts using statistical process control charts for variables and attributes. Computer applications, quality cost, gauge repeatability and reproducibility, acceptance sampling techniques and topics on TQM, ISO 9000, DOE, Lean Manufacturing, Six Sigma and ISO 14000. Prerequisite: A course in statistics.

MFGET 564. Heat Treatment and Metallurgy. 1.3 hours. (2 hours lecture, 2 hours laboratory). Applied ferrous and non-ferrous metallurgy dealing with processing and manufacturing of metallic alloys. Metal structures will be evaluated using materialurgical and physical techniques. Mechanical properties of heat treated and non-heat treated alloys will be evaluated. Prerequisites: CHEM 105 Introductory Chemistry and CHEM 106 Introductory Chemistry Laboratory, MFGET 263 Manufacturing Methods I and MFGET 268 Manufacturing Methods I Laboratory or equivalent. May be taken for honors.

MFGET 567. Principles of Metallasting. 3 hours. (3 hours lecture). Basic principles, techniques and materials used in pattern construction. Theory and practice in techniques and principles of metalcasting operations, equipment, testing, and inspection methods related to quality and production control. Prerequisites: MFGET 263 Manufacturing Methods I and MFGET 268 Manufacturing Methods I Laboratory or equivalent. Concurrent enrollment in MFGET 568 Principles of Metallasting Laboratory (required for Manufacturing majors, recommended for others).

MFGET 568. Metallasting Processing Laboratory. 2 hours. (4 hours laboratory). Laboratory experiences with various metalcasting processes: molding processes, coresmaking techniques, ferrous and non-ferrous metalurgy, sand control and gating and risering techniques. Prerequisite: Concurrent enrollment required in MFGET 567 Principles of Metallasting.

MFGET 569. Casting Design and Simulation. 3 hours. (3 hours lecture with open laboratory). Design of components suitable for metalcasting processes. Emphasis placed on molding, fluid flow, heat transfer, gating, feeding, and subsequent machining as well as metallurgical properties, structural design and cost effectiveness. Computer assisted process simulation will be covered. Prerequisites: MFGET 567 Principles of Metallasting and MFGET 568 Metalcasting Processing Laboratory.

MFGET 661. Computer Aided Manufacturing. 3 hours. (3 hours lecture with open laboratory). Interfacing computers and CAD/CAM software to develop Computer Numerical Control (CNC) programs for turning, milling, and other machines, (EDM and waterjet). Emphasis on manual programming, tooling considerations, post-processing, speeds and feeds, and transferring data among CAD, CAM and CNC. Prerequisite: MFGET 263 Manufacturing Methods I, MFGET 267 Manufacturing Methods II and MFGET 268 Manufacturing Methods I Laboratory or equivalent. Requires open laboratory assignments. May be taken for honors.

MFGET 662. Computer Aided Manufacturing II. 2 hours. Advanced CNC (Computer Numerical Control) programming techniques using CAD software. Projects will emphasize machining of complex surfaces including mold/die work, tooling components, student designed parts, and machining quality. Focus on successful manufacturing and part inspection. Prerequisites: MFGET 367 Manufacturing Methods II, MFGET 661 Computer Aided Manufacturing. Requires open laboratory.

MFGET 666. Manufacturing and Design Project I. 2 hours. (2 hours lecture with open laboratory). A "capstone" experience incorporating design, design analysis and material selection based on design cost and quality. Projects will be assigned to teams of individuals to assure a professional experience in the major field. Prerequisite: MECET 423 Mechanics of Materials. Enrollment restricted to manufacturing or mechanical seniors.

MFGET 668. Principles of Investment Casting. 3 hours. (3 hours lecture with open laboratory). Basic principles, techniques and materials used in the production of investment casting. Theory and practice in techniques and principles of operations, equipment, testing, and inspection methods related to quality and production control. Prerequisites: MFGET 567 Principles of Metallasting and MFGET 568 Metalcasting Processing Laboratory.

MFGET 669. Manufacturing and Design Project II. 3 hours. (3 hours lecture with open laboratory). Part II of the "capstone" experience dealing with actual manufacturing, testing and evaluation of the project designed in MFGET 666 Manufacturing and Design Project I. Students are required to take either the SME Certification Exam or the Fundamentals Exam at their cost. Prerequisite: MFGET 666 Manufacturing and Design Project I or written permission of instructor. Enrollment limited to manufacturing and mechanical engineering technology majors only.

MFGET 690. Manufacturing Production Control and Management. 3 hours. (3 hours lecture with open laboratory). Control of the production processing system with regard to plant layout material selection/utilization, human factors/management, and product marketing will be studied. The course utilizes a manufacturing enterprise approach to disseminate course content. Prerequisites: MFGET 263 Manufacturing Methods I and MFGET 268 Manufacturing Methods I Laboratory and MFGET 267 Manufacturing Methods II.

Management and Marketing

MGMKT 101. Introduction to Business. 3 hours. A descriptive introduction to the modern business world and an interpretation of the functional areas of business. The development of the business firm and its environment. For non-business and business majors. Not open to students who have completed more than nine hours in Kelce School courses.

MGMKT 310. Basic Quantitative Business Methods. 3 hours. An overview of quantitative methods for managers, using data to solve managerial problems, representing data through graphing, understanding index numbers to signify rates of change, basic financial principles (including time value of money, annuities, etc.), an introduction to linear programming, rates of change and basic differentiation, and a review of basic probability/statistical theory. Prerequisite: A grade of "C" or better in MATH 110 College Algebra with Review or MATH 113 College Algebra or MATH 126 Pre-Calculus or MATH 150 Calculus I or MATH 153 Introduction to Analytic Processes and 55 hours completed.

MGMKT 320. Business Statistics. 3 hours. Bayesian theory, probability distributions, decision trees, hypothesis testing, power curves, sampling theory, index numbers, and regression analysis. Prerequisite: "C" in MATH 143 Elementary Statistics or equivalent, and junior standing.

MGMKT 325. Topics in Business (___). 1-3 hours. Study of specific topics in business. A specific subject area will be identified each time the course is offered. May be repeated if topic is different, prerequisite junior standing.

MGMKT 327. Organizational Theory and Behavior. 3 hours. Theories of organization design, structure and dynamics of behavior that foster effective communication and interaction between individuals, groups and organizations. Lecture, experimental learning, cases. Prerequisite: Junior standing.
MGMT 330. Basic Marketing. 3 hours. Distribution of goods and services. Product planning, channels of distribution, pricing, advertising and personal selling. Emphasizes role of consumer. Prerequisite: Junior standing.

MGMT 430. Consumer Behavior. 3 hours. Consumer behavior theories and models; internal influencing forces of needs, motivation, perception, learning, attitudes, and personality; external influencing forces of demographics, culture, social class, family, reference groups, and marketing communication. Prerequisite: MGMT 330 Basic Marketing and PSYCH 155 General Psychology. May be taken for honors.

MGMT 435. Retail Management. 3 hours. Store location, layout, sales promotion, buying, pricing, personnel management, credit, and stock control. Analysis of case problems. Prerequisite: MGMT 330 Basic Marketing. May be taken for honors.

MGMT 439. International Business. 3 hours. Environmental complexities that arise when business activities and institutions transcend international borders, including forms of doing business abroad and cross-cultural aspects of the management of foreign operations. Prerequisites: MGMT 330 Basic Marketing and MGMT 327 Organizational Theory and Behavior. May be taken for honors.

MGMT 444. Legal and Social Environment of Business. 3 hours. The legal and social environment within which businesses operate. A study of relevant underlying legal, social, political and ethical forces which impact organizations. A substantial portion of the course will be devoted to contracts. Prerequisite: Junior standing. May be taken for honors.

MGMT 477. Quantitative Decision Making. 3 hours. Quantitative and analytical approaches to management problems. Prerequisite: "C" in MATH 143 Elementary Statistics, MGMT 310 Basic Quantitative Business Methods and junior standing.

MGMT 481. Advertising Management. 3 hours. Advertising management in relation to overall marketing program; analysis of advertising strategy, organization, and media selection; measurement of effectiveness; social and economic aspects. Prerequisite: MGMT 330 Basic Marketing. May be taken for honors.

MGMT 482. Sales Management. 3 hours. The role of the sales manager and the decisions under the manager's control: territorial planning, sales forecasting, quota setting; recruiting, selecting, training, and leading sales personnel controlling the sales management function. Prerequisite: MGMT 330 Basic Marketing. May be taken for honors.

MGMT 532. Marketing Channel Management. 3 hours. Institutions, historical development, and behavioral aspects of marketing channels; channel design, selection, and management; electronic channels; supply chains. Prerequisite: MGMT 330 Basic Marketing. May be taken for honors.

MGMT 534. Marketing Research. 3 hours. Nature and scope of marketing research, scientific method and research techniques, procedures, questionnaire design, sampling, data analysis, and research report writing. Prerequisites: MGMT 330 Basic Marketing and MGMT 320 Business Statistics. May be taken for honors.

MGMT 600. Topics in Business (____). 3 hours. Study of specific advanced topics in business. A specific subject area will be identified each time the course is offered. Prerequisite: 55 hours completed. May be repeated if topic is different. May be taken for honors.

MGMT 601. Special Topics (International Experience). 3 hours. An academically based international experience. May combine academic course work, business experience, travel and cultural immersion. May be repeated if the country or region visited is different. Specific experiences must be approved in advance by the International Business Major advisor.

MGMT 605. Cross Cultural Analysis. 3 hours. A study of the cultural aspect of international business. The focus is on understanding how different cultures effect the operation of business practices in different countries and regions of the world.

MGMT 611. International Marketing. 3 hours. Study of multi-national marketing concepts; exporting fundamentals; environmental analysis for international marketing; product, price, distribution and promotion in an international context. Prerequisites: MGMT 327 Organizational Theory and Behavior and MGMT 330 Basic Marketing. May be taken for honors.

MGMT 625. Emerging Markets. 3 hours. Importance of emerging markets in global business. Entry strategies and operational modes of multinational enterprises in emerging markets. The growth of emerging market multinationals as well as the challenges of negotiating with stakeholders in these markets. Prerequisite: Junior standing.


MGMT 628. Advanced Organizational Behavior. 3 hours. Contributions to organizational management by behavioral scientists and an examination of how their research studies can be applied to the management of today's dynamic organization. Case studies, experiential exercises, group activities and lecture-discussions. Prerequisites: MGMT 327 Organizational Theory and Behavior and junior standing. May be taken for honors.

MGMT 629. Human Resources Management. 3 hours. A strategy based study of HRM topics (attracting, maintaining and retaining people in organizations) and important HRM issues (laws and regulations, labor management-relations, etc.). Prerequisite: MGMT 327 Organizational Theory and Behavior. May be taken for honors.

MGMT 631. Advanced Marketing Management. 3 hours. Management analysis of problems in marketing consumer and industrial goods. Capstone course in marketing. Prerequisite: MGMT 330 Basic Marketing, MGMT 430 Consumer Behavior, and as a prerequisite or corequisite, MGMT 534 Marketing Research. May be taken for honors.

MGMT 645. Business Strategy. 3 hours. A capstone course which integrates knowledge of the functional areas to develop and implement policies. Business Strategy is concerned with the firm strategies and industry competition in global markets.

Corequisite: MGMT 626 Operations Management. Prerequisites: FIN 326 Business Finance, MGMT 327 Organizational Theory and Behavior, MGMT 330 Basic Marketing and 85 hours completed. May be taken for honors.

MGMT 650. Quality Management. 3 hours. This course integrates the major Total Quality Management (TQM) and Continuous Quality Improvement (CQI) philosophies. The course includes lectures and case studies. Students will learn how to use the major TQM tools and will gain an understanding of global TQM applications. Prerequisites: MGMT 320 Business Statistics or permission of the instructor. May be taken for honors.

MGMT 801. MBA Experience. 1 hours. Introduction to the MBA Program, faculty, university resources, and other students. Topics include group management skills, case analysis skills, research skills, computer skills, integration skills, written skills, oral presentation skills, and career planning. Prerequisite: Admission to the MBA program.

MGMT 821. Topics in Business (____). 1-3 hours. Study of specific topics in business. A specific subject area will be defined each time the course is offered. May be repeated if topic is different.

MGMT 826. Quantitative Business Analysis. 3 hours. Tools of managerial economics, decision making under uncertainty, forecasting, regression analysis, and linear programming. Prerequisite: MGMT 320 Business Statistics, ECON 805 Economic Analysis or waivers.

MGMT 828. Leadership and Behavioral Management. 3 hours. An in-depth study of leadership, organizational design and the interactions between individuals, groups and organizations. Emphasis will be given to an experiential exercise in leadership and team-building. Other topics include organizational behavior, motivation, HRM, and other management processes.

MGMT 830. Business, Government and Society. 3 hours. Concepts and methods for incorporating social responsiveness and public policy analysis into the strategic decision making of the firm. Prerequisite: MGMT 444 Legal and Social Environment of Business, or waivers.

MGMT 831. International Business. 3 hours. Concepts and methods for incorporating worldwide variables and conditions into the strategic decision making of the firm. Prerequisites: FIN 326 Business Finance, MGMT 330 Basic Marketing or waivers.

MGMT 839. Marketing Strategy. 3 hours. Management-oriented approach to marketing analysis and planning emphasizing the behavioral sciences, and economics and marketing theory. Prerequisite: MGMT 330 Basic Marketing, or waiver.

MGMT 895. Strategic Management. 3 hours. The student assumes the role of a decision-maker exercising all management functions to implement policy based on effective management strategy. Course method or simulation. Pre-requisites: MGMT 327 Organizational Theory and Behavior, FIN 836 Financial Strategy, MGMT 839 Marketing Strategy, and to have completed a total of 12 hours of graduate level courses.

Military Science

MIL 100. Military Science I. 1 hours. Introduction to the issues and competencies that are central to a commissioned officer's responsibilities. Officership, leadership, Army Values, and "life skills" including fitness and time management. Includes outdoor activities including rappelling, rifle shooting, and small unit tactics. Fall semester.

MIL 102. Military Science I. 1 hours. Expands upon fundamentals introduced in MIL 100 by focusing on communications, leadership, and problem solving. Participation in outdoor activities such as team building exercises, rappelling, rifle shooting and water survival training. Broad overview of physical well-being and life in the Army. Spring semester.

MIL 103. Military Science I Laboratory. 1 hours. Weekly on campus leadership laboratory involving practical instruction of military skills and application of leadership dimensions to improve student/cadets' abilities to perform as officers in the U.S. Army. This course may be repeated one time. Requires concurrent enrollment in MIL 100 or MIL 102 Military Science I.

MIL 200. Military Science II. 3 hours. Customs and traditions of military service, seminar in the Army's role in global conflict and general subjects. Advanced leadership laboratory--rifle marksmanship and care of combat casualties, includes one weekend practical exercise. Wearing of military uniform is required. Fall semester.
MLL 202. Military Science II. 3 hours. Leadership development seminar, and general military subjects. Advanced leadership laboratory—land navigation, includes one weekend practical exercise. Wearing of military uniform is required. Spring semester.

MLL 300. Advanced Military Science III. 3 hours. Military writing, organizational effectiveness, operation orders, map reading, and general military subjects. Included is a laboratory activity that will offer drill and ceremonies. Includes two weekend practical exercises and physical training three days per week. Prerequisite: MLL 100/102 Military Science I, MLL 103 Military Science I Laboratory and MLL 200/202 Military Science II or equivalent (USACC Leaders Training Course). Fall semester.

MLL 302. Advanced Military Science III. 3 hours. Small unit tactics, communications, command and staff; branches of the army, map reading. Included is a laboratory activity that will offer weapon systems, water survival test and pre-camp orientation. Includes two weekend practical exercises. Prerequisite: MLL 100/102 Military Science I, MLL 103 Military Science I Laboratory, MLL 200/202 Military Science II and MLL 300 Advanced Military Science III. Spring semester.

MLL 303. Leadership Assessment and Development Course. 4 hours. A five-week internship conducted at Fort Lewis, Washington. Students are formed into small groups with college students from across the nation. The instruction is highly structured and demanding, stressing leadership at small unit levels under varying, challenging conditions. Prerequisites: MLL 100/102 Military Science I, MLL 103 Military Science I Laboratory, MLL 200/202 Military Science II and MLL 300/302 Advanced Military Science III.

MLL 400. Advanced Military Science IV. 3 hours. Administration and logistics, mechanized team tactics, interpersonal skills and counseling. Included is a laboratory activity that will offer leadership development and organizational theory, assumption of duties of cadet chain of command. Includes two weekend practical exercises. Prerequisite: MLL 100/102 Military Science I, MLL 103 Military Science I Laboratory, MLL 200/202 Military Science II and MLL 300/302 Advanced Military Science III. Fall semester.

MLL 402. Advanced Military Science IV. 3 hours. Military law, leadership problems, ethics and professionalism, general military subjects. Included in the class is a laboratory activity that will offer practical staff exercises. Includes two weekend practical exercises. Prerequisite: MLL 100/102 Military Science I, MLL 103 Military Science I Laboratory, MLL 200/202 Military Science II, MLL 300/302 Advanced Military Science III and MLL 400 Advanced Military Science IV. Spring semester.

MLL 455. Seminar in Military Science. 3 hours. Intensive study of a specific topic, problem or theory in the military. May be repeated. Requires completion of the Basic Course and consent of the department chairman.

Modern Languages and Literature

MLL 114. Chinese Language and Culture I. 5 hours. An introduction to the Chinese language emphasizing the development of listening, speaking, reading, writing, and an appreciation of Chinese culture.

MLL 118. Chinese Language and Culture II. 5 hours. A continuation of MLL 114 Chinese Language and Culture I. A student may earn retro-credit upon successful completion of this course. Prerequisite: MLL 114 Chinese Language and Culture I.


MLL 128. French Language and Culture II. 5 hours. A continuation of MLL 124 French Language and Culture I. Prerequisite: MLL 124 French Language and Culture I. A student may earn retro-credit upon successful completion of this course.

MLL 140. Beginning Portuguese Conversation. 3 hours. Conversational practice on a wide range of topics.

MLL 142. Portuguese for Travelers. 3 hours. A basic course to gain a speaking ability and a large working vocabulary.

MLL 150. Spanish for Travelers. 1-3 hours. A basic course to gain a speaking ability and a large working vocabulary. May be taken as graded or pass-fail.

MLL 151. Beginning Spanish Conversation. 3 hours. Conversational practice on a wide range of topics. May be taken as graded or pass-fail.

MLL 152. Spanish for the Professions. 2 hours. A beginning course with an emphasis on oral communication in real life situations. Basic vocabulary and structures to communicate with Spanish speakers in the community.

MLL 154. Spanish Language and Culture I. 5 hours. An introduction to the Spanish language emphasizing the development of listening, speaking, reading and writing, and an appreciation of Hispanic culture.

MLL 158. Spanish Language and Culture II. 5 hours. A continuation of MLL 154 Spanish Language and Culture I. Prerequisite: MLL 154 Spanish Language and Culture I. A student may earn retro-credit upon successful completion of this course.

MLL 160. Introduction to Foreign Languages (___). 1-5 hours. Introductory course in one of various languages. May be repeated when course content is different. May be taken on a Pass/Fail basis.

MLL 184. Russian Language and Culture I. 5 hours. An introduction to the Russian language emphasizing the development of listening, speaking, reading, writing, and an appreciation of Russian culture.

MLL 188. Russian Language and Culture II. 5 hours. A continuation of MLL 184 Russian Language and Culture I. Prerequisite: MLL 184 Russian Language and Culture I. A student may earn retro-credit upon successful completion of this course.

MLL 194. Korean Language and Culture I. 5 hours. An introduction to the Korean language with emphasis on comprehension of the spoken language and appreciation of Korean culture, leading to the ability to function effectively at a basic level.

MLL 198. Korean Language and Culture II. 5 hours. A continuation of MLL 194 Korean Language and Culture I. Prerequisite: MLL 194 Korean Language and Culture I. A student may earn retro-credit upon the successful completion of this course.

MLL 222. French Conversation I. 2 hours. Conversational activities for the development of oral proficiency as defined by the American Council on the Teaching of Foreign Languages. Concurrent enrollment in MLL 224 French Grammar and Composition I required. Prerequisite: MLL 128 French Language and Culture II. A student may earn retro-credit upon successful completion of this course.

MLL 224. French Grammar and Composition I. 3 hours. The study of new grammatical structures and cultural information and a review of concepts with special emphasis on developing writing skills. Concurrent enrollment in MLL 222 French Conversation I required. Prerequisite: MLL 128 French Language and Culture II. A student may earn retro-credit upon successful completion of this course.

MLL 250. Directed Studies in Spanish (___). 1-3 hours. Directed studies in an area of the Spanish language or Hispanic culture. Permission of the instructor required. May be repeated if the subject matter is different. May be taken as graded or pass-fail.

MLL 252. Spanish Conversation I. 2 hours. Conversational activities for the development of oral proficiency as defined by the American Council on the Teaching of Foreign Languages. Concurrent enrollment in MLL 254 Spanish Grammar and Composition I required. Prerequisite: MLL 158 Spanish Language and Culture II. A student may earn retro-credit upon successful completion of this course.

MLL 254. Spanish Grammar and Composition I. 3 hours. The study of new grammatical structures and cultural information and a review of concepts with special emphasis on developing writing skills. Concurrent enrollment in MLL 252 Spanish Composition I required. Prerequisite: MLL 158 Spanish Language and Culture II. A student may earn retro-credit upon successful completion of this course.

MLL 321. French Grammar and Composition II. 3 hours. Intensive study of previous and new grammatical structures with emphasis on written expression. Concurrent enrollment in MLL 420 Readings in French Literature and Civilization II required or permission of instructor. Prerequisites: MLL 326 French Conversation II and MLL 328 Readings in French Literature and Civilization I. May be taken for honors.

MLL 326. French Conversation II. 2 hours. Conversational activities intended to continue the development of oral proficiency as defined by the American Council on the Teaching of Foreign Languages. Concurrent enrollment in MLL 328 Readings in French Literature and Civilization I required. Prerequisites: MLL 222 French Conversation I and MLL 224 French Grammar and Composition I.

MLL 328. Readings in French Literature and Civilization I. 3 hours. The reading of a wide variety of authentic materials, such as literature, journal, and internet activities, and advertisements. Concurrent enrollment in MLL 326 French Conversation II required. Prerequisites: MLL 222 French Conversation I and MLL 224 French Grammar and Composition I.

MLL 351. Spanish Grammar and Composition II. 3 hours. Intensive study of previous and new grammatical structures with emphasis on written expression. Concurrent enrollment in MLL 450 Readings in Hispanic Literature and Civilization II required. Prerequisites: MLL 356 Spanish Conversation in MLL 358 Readings in Hispanic Literature and Civilization I or permission of instructor. May be taken for honors.

MLL 356. Spanish Conversation II. 2 hours. Conversational activities intended to continue the development of oral proficiency as defined by the American Council on the Teaching of Foreign Languages. Concurrent enrollment in MLL 358 Readings in Hispanic Literature and Civilization II required. Prerequisites: MLL 252 Spanish Conversation I and MLL 254 Spanish Grammar and Composition I.

MLL 358. Readings in Hispanic Literature and Civilization I. 3 hours. The reading of a wide variety of authentic materials, such as literature, journal and internet articles, and advertisements. Concurrent enrollment in MLL 356 Spanish Conversation II required. Prerequisites: MLL 252 Spanish Conversation I and MLL 254 Spanish Grammar and Composition I.

MLL 420. Readings in French Literature and Civilization II. 3 hours. Texts chosen for their cultural and literary value, with equal emphasis on reading and discussion of the selections. Concurrent enrollment in MLL 321 French Grammar and Composition II required. Prerequisites: MLL 326 French Conversation II and MLL 328 Readings in French Literature and Civilization I or permission of instructor. May be taken for honors.
MULL 421. Advanced French Conversation. 2 hours. Intensive oral practice and conversation focused on various topics and targeting the advanced level of proficiency according to the American Council on the Teaching of Foreign Languages. Concurrent enrollment in MULL 525 French Phonetics and Oral Practice required. Prerequisites: MULL 321 French Grammar and Composition II and MULL 420 Readings in French Literature and Civilization II. May be taken for honors.

MULL 425. Directed Studies in French (1-2). 1-3 hours. Directed study of a specific field in French. May be repeated if subject matter is different. Prerequisite: MULL 328 Readings in French Literature and Civilization I and permission of instructor.

MULL 427. French Culture and Civilization. 3 hours. A study of the development of French or French-American culture with particular emphasis on history, politics, economics, customs, traditions, and literary and artistic trends. Prerequisite: MULL 420 Readings in French Literature and Civilization II. May be taken for honors.


MULL 430. Survey of Francophone Literature. 3 hours. A study of prose fiction and poetry by writers from the Caribbean, North America, North and West Africa, and Europe. Prerequisites: MULL 321 French Grammar and Composition II and MULL 420 Readings in French Literature and Civilization II. May be taken for honors.

MULL 450. Readings in Hispanic Literature and Civilization II. 3 hours. Texts chosen for their cultural and literary value, with equal emphasis on reading and discussion of the selections. Concurrent enrollment in MULL 351 Spanish Grammar and Composition II required. Prerequisites: MULL 356 Spanish Conversation II and MULL 358 Readings in Hispanic Literature and Civilization I or permission of instructor. May be taken for honors.

MULL 451. Advanced Spanish Conversation. 2 hours. Intensive oral practice and conversation focused on various topics and targeting the advanced level of proficiency according to the American Council on the Teaching of Foreign Languages. Concurrent enrollment in MULL 555 Spanish Phonetics and Oral Practice required. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 452. Survey of Spanish-American Literature I. 3 hours. The reading, discussion and analysis of early Spanish-American literature. Prerequisite: MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 453. Survey of Spanish-American Literature II. 3 hours. The reading, discussion and analysis of representative works of 20th century Spanish-American prose, poetry, and theatre. Prerequisite: MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 454. Survey of Spanish Literature I. 3 hours. A survey of early Spanish literature, and the reading and analysis of selected works of Spanish literature. Prerequisite: MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 455. Survey of Spanish Literature II. 3 hours. Survey of recent Spanish literature, and the reading and analysis of selected works of Spanish literature. Prerequisite: MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 457. Hispanic Culture and Civilization. 3 hours. A study of the development of Spanish or Spanish-American culture with particular emphasis on history, politics, economics, customs, traditions, and literary and artistic trends. Prerequisite: MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 458. Spanish American Drama. 3 hours. The study of the plays of an individual author or of those of a given movement, or an overview of the genre. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 459. Spanish American Short Fiction. 3 hours. The study of short stories and novellas, focusing on the works of a specific writer, a period in recent literary history, or an overview of the genre. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 475. Directed Studies in Spanish (1-2). 1-3 hours. Directed study of a specific field in Spanish. May be repeated if subject matter is different. Prerequisite: Permission of instructor. May be taken as graded or pass-fail.

MULL 479. The Teaching of Languages. 3 hours. Discussion, demonstrations and training in the major approaches, methodologies and techniques to teach languages. Students are also required to observe local classroom(s) an average of 2 hours a week during which they will teach a minimum of 3 lessons over the course of the semester. To be taken before the professional semester. Prerequisites: Admission to Teacher Education and PSYCH 357 Educational Psychology.


MULL 526. Business French. 3 hours. A study of business environments and practices in France and Quebec with development of language skills specific to business and the professions. Prerequisites: MULL 321 French Grammar and Composition II and MULL 420 Readings in French Literature and Civilization II. May be taken for honors.

MULL 527. Translation of French. 3 hours. Translation of texts from French into English, and from English into French, using authentic materials covering a broad range of written texts, topics, linguistic levels, and registers. Prerequisites: MULL 321 French Grammar and Composition II and MULL 420 Readings in French Literature and Civilization II. May be taken for honors.

MULL 550. Hispanic Film. 3 hours. The study of the movies of an individual director or of those of a given performer or movement, or an overview of the genre. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 551. Hispanic Art. 3 hours. The study of the great works of Hispanic art as a means of understanding the culture that produced them. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 555. Spanish Phonetics and Oral Practice. 2 hours. Theoretical study and practical work on the Spanish sound system, articulation of sounds, oral and aural practice. Concurrent enrollment in MULL 451 Advanced Spanish Conversation is required. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 556. Spanish for International Business. 3 hours. A study of business environments and practices in Spain and Latin America with development of language skills specific to business and the professions. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 557. Translation of Spanish. 3 hours. Translation of texts from Spanish into English, and from English into Spanish, using authentic materials covering a broad range of written texts, topics, linguistic levels, and registers. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

MULL 625. Topics in French (1-2). 1-3 hours. Intensive study of a specific field in French. May be repeated if subject matter is different. Prerequisite: MULL 420 Readings in French Literature and Civilization II. May be taken for honors.

MULL 651. Spanish American Poetry. 3 hours. The reading, discussion, and analysis of poetry by major writers. Prerequisites: MULL 351 Spanish Grammar and Composition II and MULL 450 Readings in Hispanic Literature and Civilization II. May be taken for honors.

MULL 655. Topics in Spanish (1-2). 1-3 hours. Intensified study of a specific field in Spanish. May be repeated if subject matter is different. Prerequisite: Permission of instructor. May be taken for honors.

MULL 720. Topics in French (1-2). 1-3 hours. An intensification of a specific field in French. May be repeated if subject matter is different. Prerequisite: Permission of instructor. May be taken for honors.

MULL 730. Topics in Spanish (1-2). 1-3 hours. Intensified study of a specific field in Spanish. May be repeated if subject matter is different. Prerequisite: Permission of instructor. May be taken for honors.

Music

MUSIC 102. Class Voice. 1 hour. Beginning level group instruction in voice performance, focusing on the fundamentals of voice production in speaking and singing, including vocal hygiene. Designed for any or all students with limited singing experience, wishing to improve their singing skills. May be repeated.

MUSIC 109. Aural Skills and Theory Fundamentals. 4 hours. Aural recognition of some simple intervals, scales and triads; melodic dictation and rhythm dictation. Use of solfege syllables for singing intervals, scales, and diatonic melodies; keyboard performance of scales and playing exercises; performance of rhythms with basic conducting patterns. Basic skills in music reading. Key signatures, scales, intervals, treble and bass clefs, rhythmic notation.
MUSIC 111. Aural Skills and Theory I. 4 hours. Aural recognition and singing of all simple intervals, scales, triads; one-phrase melodic dictation; diatonic harmonic dictation; rhythmic dictation; use of solfege syllables for sight-singing; keyboard performance of keyboard play/sing exercises; performance of rhythms with basic conducting patterns. Introduction to first species counterpoint; instrumental transposition and the overtone series; introduction to melodic structures, cadences, and periods; composition exercises for instruments. Prerequisite: Entrance exam grade. A grade of C or better is required. Spring only.

MUSIC 113. Aural Skills and Theory II. 4 hours. Aural recognition and singing of compound intervals, triads and seventh chords; two-phrase melodic dictation; 4-part diatonic harmonic dictation with introduction to chromaticism; rhythmic dictation involving syncopation and hemiola; singing of melodies with chromatic inflexions; performance of rhythms with conducting patterns; performance of keyboard play/sing exercises. Study of 2nd, 3rd, and 4th species counterpoint; use of jazz/pop chord and Roman/Arabic symbols; analysis of musical examples; introduction to chromaticism; composition exercises for piano and other instruments. Prerequisite: MUSIC 111 Aural Skills and Theory I. A grade of C or better is required. Fall only.

MUSIC 120. Music Appreciation (____). 3 hours. Using the techniques of listening to recognize the various elements, forms, styles, and textures of music, this class helps develop an appreciation of the fine arts and aesthetics of human performance in the arts. Subject matter will vary with each section but will emphasize the following types of music: classical, jazz or world music. The specific content of each section will be identified in the class schedule. No previous music experience is necessary. Not open to students who have completed MUSIC 121 Introduction to Music Literature or its equivalent. Not open to music majors.

MUSIC 121. Introduction to Music Literature. 2 hours. Significant musical works from the Middle Ages through the present with stylistic analysis. A secondary emphasis is placed on world music. Designed for music majors and minors. Fall only.

MUSIC 131. Piano Class. 1 hours. Beginning study of the piano, including the keyboard, treble and bass clefs, scales, basic chords, elementary technique. Methods of practicing, sight reading, study and performance of simple piano music. Primarily for music majors with little or no previous piano study. May be repeated. Must have a C or better to pass. Fall only.

MUSIC 132. Piano Class. 1 hours. Continuation of MUSIC 131 Piano Class. May be repeated. Primarily for music majors and minors. Must have a C or better to pass. Spring only.

MUSIC 140. Children's Music. 3 hours. Basic fundamentals, activities, and materials of music in the elementary classroom.

MUSIC 156. Band (____). 1 hours. The band organizations have a dual objective of service to the school and the study and performance of significant repertoire specifically composed for this medium. Included in the organizations are the Symphonic Band, Marching Band, and Wind Ensemble. Open to all university students by. MUSIC 156 Band [____] may be repeated for a maximum of 8 hours. MUSIC 356 Band [____] and MUSIC 756 Band [____] may be repeated.

MUSIC 157. Jazz Ensemble. 1 hours. Patterned after both contemporary big band and the large popular groups of the 1930's, this group devotes itself to the performance of the best jazz literature of the current and previous periods. Open to university students by audition. MUSIC 157 Jazz Ensemble may be repeated for a maximum of 4 hours. MUSIC 357 Jazz Ensemble and MUSIC 757 Jazz Ensemble may be repeated.

MUSIC 167. Jazz Choir. 1 hours. A mixed ensemble of singers selected to study and perform vocal jazz and other popular idioms. Auditions include university, community, and regional functions, often in conjunction with the Jazz Ensemble or Combo. Open to students by audition. MUSIC 167 Jazz Choir may be repeated for a maximum of 4 hours. MUSIC 367 Jazz Choir and MUSIC 767 Jazz Choir may be repeated.

MUSIC 176. Orchestra. 1 hours. Orchestral training including preparation and performance of standard literature for orchestra, opera, and oratorio. Open to all university students by audition. MUSIC 176 Orchestra may be repeated for a maximum of 4 hours. MUSIC 376 Orchestra and MUSIC 776 Orchestra may be repeated.

MUSIC 178. Chamber Music (____) [subject such as Brass, Strings, etc.]. 1 hours. Prerequisite: Adequate performance skill and assignment to the specific ensemble group. May be repeated.

MUSIC 187. University Choir. 1 hours. A large mixed ensemble that performs a wide variety of coral literature in at least one major concert each semester. Additional performances, both on and off campus, are often included as well. No audition required. MUSIC 187 University Choir may be repeated for a maximum of 4 hours. MUSIC 387 University Choir and MUSIC 787 University Choir may be repeated.

MUSIC 188. Chorale. 1 hours. Mixed ensemble of selected singers involved in the preparation and performance of choral music from the 16th century to the present. Activities include campus concerts, participation in oratorio production, spring tour and other performances. Open to students by audition. MUSIC 188 Chorale may be repeated for a maximum of 4 hours. MUSIC 388 Chorale and MUSIC 788 Chorale may be repeated.

MUSIC 191. Recital Hour. 0 hours. Performance venue for all music majors. Opportunity to become familiar with repertoire of a variety of genres and to gain performance experience. Required for seven semesters. Grades assigned on the basis of attendance. May be repeated.

MUSIC 211. Aural Skills and Theory III. 4 hours. 4-part dictation of chromatic harmony; dictation or modulating melodies; dictation and sight-singing with chromatic solfege syllables; keyboard performance with play/sing exercises. Study of modulation and late-19th century harmonic practice; composition exercises with emphasis on varieties of texture. Prerequisite: MUSIC 113 Aural Skills and Theory II. A grade of C or better is required. Spring only.

MUSIC 213. Aural Skills and Theory IV. 4 hours. Dictation of alternative scales and melodies based on those scales; aural recognition of extended tertian sonorities and altered dominants; singing of jazz melodies and 12-note rows; keyboard play/sing exercises of jazz harmonic progressions. Study of 20th-century harmonic practice, including atonal, 12-tone and jazz; introduction to indeterminacy. Prerequisite: MUSIC 211 Aural Skills and Theory III. A grade of C or better is required. Fall only.

MUSIC 225. Topics in Music (____). 1-3 hours. Lecture or seminar in specialized areas of music. May be repeated if subject matter is different. Prerequisite: Permission of instructor.

MUSIC 226. Jazz Improvisation. 2 hours. A systematic approach to the art of improvisation including terms, patterns, solo development, and analysis of solos. Prerequisite: Past or concurrent enrollment in MUSIC 109 Aural Skills and Theory Fundamentals or by permission of instructor. May be repeated.

MUSIC 231. Intermediate Piano Class. 1 hours. Continuation of MUSIC 131 and MUSIC 132 Piano Class. Designed to enable music majors to meet secondary piano requirements. Study and performance in class of appropriate piano music such as Bach dances, sonatinas, and similar works. May be repeated. Prerequisite: MUSIC 131 and MUSIC 132 Piano Class or MUSIC 250 Applied Music Piano (or equivalent). Must have a C or better to pass. Fall only.

MUSIC 232. Intermediate Piano Class. 1 hours. Continuation of MUSIC 231 Intermediate Piano Class. May be repeated. Must have a C or better to pass. Spring only.

MUSIC 238. Basic Conducting. 2 hours. Baton techniques involving beat patterns. Solfeggio practice and its application in transposition. Score structure, terminology and score reading. Fall only.

MUSIC 241. Introduction to Music Education. 1 hours. Designed for prospective public school music teachers. Includes field experience and directed observation in area schools. Introduction to curriculum and standards for K-12 school music programs. Fall only.

MUSIC 250. Applied Music (____). 1/2-3 hours. 3 hours for students in the B.M. program***, 2 hours for students in the B.M.E. and B.A. programs**, all others 1 hour*. May be repeated. Prerequisite: Permission of instructor. (This may be a beginning subject or may be a continuation of an instrument previously studied. Frequently this instrument has a functional purpose for music teaching such as piano, organ, or voice. Consistent progress is expected but the level of performance is not specified and no recital is required. The student is expected to practice one hour per day.) (***For the degree of Bachelor of Music Education, the student declares an applied emphasis upon entering and is expected to continue this subject with a one-hour lesson each week for seven semesters. Daily practice of two hours is expected.) (**For the degree of Bachelor of Music, intensive study is expected in the performance major throughout the program, with a one hour private lesson per week and minimum daily practice of three hours.) (Summer session credit, 1/2 of that listed in each instance.)

MUSIC 279. Opera Workshop. 1-3 hours. Preparation of the singing actor with stage technique for the lyric theater. Techniques of preparing works. Scenes from standard and contemporary operas and operettas. May be repeated. Open to students by audition.


MUSIC 289. Applied Diction for Singers II. 1 hours. Drill on the phonetics of French and German and application to solo and choral repertoire.

MUSIC 311. Composition. 3 hours. Original composition in the smaller forms for piano, voice, solo instruments, small ensembles. Prerequisite: MUSIC 113 Aural Skills and Theory II. May be taken for honors. May be repeated.

MUSIC 321. History of Music. 3 hours. Medieval, Renaissance, and Baroque periods. Music characteristics and the lives and contributions of the principal composers. General historic background, the political and cultural milieu, the growth of notation, and of instrumental and vocal music, both sacred and secular. May be taken for honors. Fall only.

MUSIC 322. History of Music. 3 hours. Classical period to the present. Continuation of MUSIC 321 History of Music. May be taken for honors. Fall only.
MUSIC 326. Pedagogy/Literature (____). 1-3 hours. Pedagogical principles related to teaching the specific area to include a survey of method books and/or technique books as appropriate to the medium and knowledge/creation of appropriate warm-up techniques as appropriate to the medium. Also included are lesson observations and the creation of a course of study/knowledge of repertoire. Prerequisite: Junior standing. May be repeated if subject matter differs. May be taken for honors.

MUSIC 330. Woodwind Techniques. 2 hours. Playing experience on clarinet, saxophone, flute, and double reed instruments. Embouchure, fingerings, slide positions, instrument selection and maintenance, mouthpiece selection, literature, and teaching techniques.

MUSIC 331. Brass Techniques. 1 hour. Playing experience on upper and lower brass instruments. Embouchure, fingerings, and practical application with practical application in conducting instrumental laboratory organization. Survey of suitable instrumental literature. Prerequisite: MUSIC 238 Basic Conducting. May be taken for honors. Spring only.

MUSIC 332. Percussion Techniques. 1 hours. Applied techniques on instruments of the percussion section. Repair and care of drums and heads, study and practice on different roll techniques, literature, teaching techniques, and the application of the techniques to orchestra, band, and drum corps. Must enroll concurrently with MUSIC 342 String Techniques.

MUSIC 336. Vocal Techniques. 1 hours. Experience in using the voice for teaching purposes, teaching techniques for students at all levels, literature. Must enroll concurrently with MUSIC 331 Brass Techniques.

MUSIC 337. Choral Conducting. 2 hours. Development of techniques necessary to interpret and perform styles and repertories of choral literature. Prerequisite: MUSIC 238 Basic Conducting.

MUSIC 338. Instrumental Conducting. 2 hours. Baton techniques as applied to different types of instruments. Rehearsal procedures and techniques, with practical application in conducting instrumental laboratory organization. Survey of suitable instrumental literature. Prerequisite: MUSIC 238 Basic Conducting. May be taken for honors. Spring only.

MUSIC 340. Organization of the Instrumental Music Program. 3 hours. Curriculum, philosophy, and administration of the program, including materials and techniques for implementation. Prerequisite: MUSIC 238 Basic Conducting. Concurrent enrollment in a techniques class unless all requirements have already been met. Spring only.

MUSIC 341. Band Literature and Methods. 3 hours. Literature and materials for school bands. Selected works will be analyzed with regard to rehearsal techniques which may be employed to increase the perception and judgment of band students. May be taken for honors.

MUSIC 342. String Techniques. 1 hours. Playing experience on upper and lower string instruments. Left and right hand technique, instrument selection and maintenance, literature, and teaching techniques. Must enroll concurrently with MUSIC 333 Percussion Techniques.

MUSIC 344. Marching Band Techniques. 1 hours. Organization and administration of the modern marching band program. Charting and showing build with performance and drilling procedures. Materials and methods are emphasized. Fall only.

MUSIC 345. Jazz Ensemble Techniques. 1 hours. Organization and administration of the modern jazz ensemble. Jazz phrasing, styles, improvisation, materials, and methods are emphasized. Prerequisite: MUSIC 238 Basic Conducting and MUSIC 113 Aural Skills and Theory II. Spring only.

MUSIC 356. Band (____). 1 hours. The band organizations have a dual objective of service to the school and the study and performance of significant repertoire specifically composed for this medium. Included in the organizations are the Symphonic Band, Marching Band, and Wind Ensemble. Open to all university students. MUSIC 156 Band (____) may be repeated for a maximum of 8 hours. MUSIC 356 Band (____) and MUSIC 756 Band (____) may be repeated.

MUSIC 357. Jazz Ensemble. 1 hours. Patterned after both contemporary big band and the large popular groups of the 1930’s, this group devotes itself to the performance of the best jazz literature of the past and present. Open to all university students by audition. MUSIC 157 Jazz Ensemble may be repeated for a maximum of 4 hours. MUSIC 357 Jazz Ensemble and MUSIC 757 Jazz Ensemble may be repeated.

MUSIC 367. Jazz Choir. 1 hours. A mixed ensemble of singers selected to study and perform vocal jazz and other popular idioms. Appearances include university, community, and regional functions, often in conjunction with the Jazz Ensemble or Combo. Open to students by audition. MUSIC 167 Jazz Choir may be repeated for a maximum of 4 hours. MUSIC 367 Jazz Choir and MUSIC 767 Jazz Choir may be repeated.

MUSIC 376. Orchestra. 1 hours. Orchestral training including preparation and performance of standard literature for orchestra, opera, and oratorio. Open to all university students by audition. MUSIC 176 Orchestra may be repeated for a maximum of 4 hours. MUSIC 376 Orchestra and MUSIC 776 Orchestra may be repeated.

MUSIC 377. Accompanying Techniques. 2 hours. Practical problems in accompanying various instrumental and vocal works. Emphasis on style and ensemble performance. Prerequisite: Piano proficiency equal to MUSIC 250 Applied Music (Piano).

MUSIC 378. Chamber Music (____) (subject such as Brass, Strings, etc). 1 hours. Prerequisite: Adequate performance skill and assignment to the specific ensemble group. May be repeated.


MUSIC 387. University Choir. 1 hours. A large mixed ensemble that performs a wide variety of coral literature in at least one major concert each semester. Additional performances, both on and off campus, are often included as well. No audition required. MUSIC 187 University Choir may be repeated for a maximum of 4 hours. MUSIC 387 University Choir and MUSIC 787 University Choir may be repeated.

MUSIC 388. Chorale. 1 hours. Mixed ensemble of selected singers involved in the preparation and performance of choral music from the 16th century to the present. Activities include campus concerts, participation in oratorio production, spring tour and other performances. Open to students by audition. MUSIC 188 Chorale may be repeated for a maximum of 4 hours. MUSIC 388 Chorale and MUSIC 788 Chorale may be repeated.

MUSIC 391. Recital Hour. 0 hours. Performance venue for all music majors. Opportunity to become familiar with repertoire of a variety of genres and to gain performance experience. Required for seven semesters. Grades assigned on the basis of attendance. May be repeated.

MUSIC 392. Junior Recital (____). 0 hours. For the Bachelor of Music program, a recital of at least 30 minutes is required in the junior year. May be repeated if the medium is different. Prerequisite: Literature hour in same applied subject, with concurrent enrollment in that subject, plus permission of instructor. May be taken for honors.

MUSIC 413. Orchestration. 3 hours. Range, color, and treatment of orchestral and band instruments. Practical arranging for ensembles, orchestra and band; brief history of orchestration. Prerequisite: MUSIC 213 Aural Skills and Theory IV. May be taken for honors.

MUSIC 414. Forms and Analysis. 2 hours. Form, harmonic and melodic structure of large and small compositions of various periods. May be taken for honors.

MUSIC 425. Topics in Music (____). 1-3 hours. Lecture or seminar in specialized areas of music. May be repeated if subject matter is different. Prerequisite: Permission of instructor. May be taken for honors.

MUSIC 431. Teaching Music in the Schools, Pre-K-8. 3 hours. Approaches to teaching singing, playing instruments, listening, moving to, and creating music. Emphasis is on Orff, Kodaly, and Dalcroze methodologies. Spring only.

MUSIC 432. Secondary Choral Methods. 3 hours. Philosophy, objectives, and organization of the program with materials and techniques for implementation. Prerequisite: MUSIC 238 Basic Conducting, MUSIC 213 Aural Skills and Theory IV. Fall only.

MUSIC 450. Applied Music (____). 1-2/3 hours. For secondary students, 1 hour; * for students on the B.M.E. program, 2 hours; ** for students on the B.M. program, 3 hours. ** May be repeated. May be taken for departmental honors in a semester when a recital is not required. Prerequisite: Successful audition before a qualifying jury of the Department of Music faculty, completion of the junior barrier portfolio, and permission of instructor. (*This may be a beginning subject or may be a continuation of an instrument previously studied. Frequently this instrument has a functional purpose for music teaching such as piano, organ, or voice. Consistent progress is expected but the level of performance is not specified and no recital is required. The student is expected to practice one hour per day.) (**)For the degree of Bachelor of Music Education, the student declares an applied emphasis upon entering and is expected to continue this subject with a one-hour lesson each week for seven semesters. For the Bachelor of Arts, six semesters are required. For both degrees, daily practice of two hours is expected.) (**For the degree of Bachelor of Music, intensive study is expected in the performance major throughout the program, with a one hour private lesson per week and minimum daily practice of three hours.) (Summer session credit, 1/2 of that listed in each instance.)

MUSIC 479. Opera Workshop. 1-3 hours. Preparation of the singing actor with stage technique for the lyric theater. Techniques of preparing works. Scenes from standard and contemporary operas and operettas. May be repeated. May be taken for honors. Open to students by audition.

MUSIC 492. Senior Recital (____). 1 hours. For the Bachelor of Music Education program, a recital of 30 minutes is required; for the Bachelor of Music program, a solo recital of at least one hour is required. Prerequisite: Senior level in the same applied subject, with concurrent enrollment in that subject, plus permission of instructor. May be repeated if applied medium is different. BM majors must pass Piano Proficiency Examination before they will be allowed to perform their Senior Recital. May be taken for honors.

MUSIC 493. Senior Project. 1 hours. For the Bachelor of Arts degree only. Students seeking the BA in Music degree have the option of doing a Senior Recital or a Senior Project as the capstone course for their degree. The scope and depth of the project will be determined in consultation with the BA degree advisor in the Department of Music. Prerequisite: Approval of BA Advisor.
MUSIC 511. Counterpoint. 3 hours. Analysis of vocal and instrumental polyphony of the late Renaissance to the 20th Century. Composition based on the styles of representative composers. Prerequisite: MUSIC 213 Aural Skills and Theory IV. May be taken for honors. Spring only.

MUSIC 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. BME majors must pass Piano Proficiency Examination before they student teach. Offered on a Pass-Fail basis only.

MUSIC 710. Organ Seminar [_____]. 2 hours. Examination of representative literature and instruments from the major historical traditions, with special emphasis on matters related to performance practice. Score and prose readings, lectures, live and recorded performances. May be repeated if subject material is different.

MUSIC 711. Advanced Composition. 3 hours. Contemporary compositional devices with an emphasis on counterpoint and the larger forms. May be repeated for a maximum of nine hours.

MUSIC 713. Graduate Review-Music Theory. 2 hours. Review course for students who show deficiencies in Music Theory based on the results of graduate entrance exam. Course will not count for degree credit and must be completed prior to being allowed to enroll in graduate music theory courses. Prerequisite: Graduate Entrance Examination. Fall only.

MUSIC 715. Graduate Review-Music History. 2 hours. Review course for students who show deficiencies in Music History based on the results of graduate entrance exam. Course will not count for degree credit and must be completed prior to being allowed to enroll in graduate music history courses. Prerequisite: Graduate Entrance Examination. Fall only.

MUSIC 722. History of Solo Vocal Repertoire. 3 hours. A selective survey of standard solo art song repertoire. Hands-on teaching experiences include multi-media presentation enriched by individual research and solo performance. Prerequisite: 12 hours of applied music credit. May be taken for honors.

MUSIC 723. Piano Literature [_____]. 3 hours. Solo literature and concerti for piano chosen from selected historical periods with detailed study of representative works of the major composers. May be repeated if subject matter is different. Prerequisite: 12 hours of applied piano music credit or equivalent study.

MUSIC 725. Topics in Music [_____]. 1-3 hours. Lecture or seminar in specialized areas of music. Prerequisite: MUSIC 213 Aural Skills and Theory IV and MUSIC 321 History of Music or equivalent. May be repeated if topic is different. May be taken for honors.

MUSIC 728. Pedagogy/Literature [_____]. 3 hours. Methods and materials, studio curriculum development, studio management, and career development for teaching at institutions of higher learning. Content related to specified applied area.

MUSIC 731. Choral Techniques. 3 hours. Problems confronting the choral conductor in rehearsal techniques, including such elements as tonal production, diction, balance and intonation.

MUSIC 736. Advanced Choral Conducting. 3 hours. Choral conducting techniques, open-score reading, score study, sight-singing, technical application of the study of styles. Preparation and performance of specific works. May be repeated for a maximum of 6 hours.

MUSIC 738. Advanced Instrumental Conducting I. 3 hours. A critical analysis and interpretation of standard and contemporary literature. The preparation and reading of the full score. Physical aspects of advanced conducting problems. May be repeated for a maximum of 6 hours.

MUSIC 741. Band Literature and Methods. 3 hours. Literature and materials for school bands. Selected works will be analyzed with regard to rehearsal techniques which may be employed to increase the perception and judgment of band students. Not open to students with credit in MUSIC 341 Band Literature and Methods.

MUSIC 747. Piano Pedagogy I. 2 hours. Methods and materials (beginning through 4th year). Studio curriculum development, studio management, and career development observations and discussions with experienced teachers. Prerequisite: MUSIC 450 Applied Music (Piano).

MUSIC 750. Applied Music [_____]. 1/2-3 hours. For graduate students. A 1/2 hour lesson receives 1 hour credit, a full hour lesson receives 2 hours credit. May be repeated. Prerequisite: Permission of instructor. (Summer session credit, 1/2 of that listed in each instance.)

MUSIC 756. Band [_____]. 1 hours. The band organizations have a dual objective of service to the school and the study and performance of significant repertoire specifically composed for this medium. Included in the organizations are the Symphonic Band, Marching Band, and Wind Ensemble. Open to all university students. MUSIC 156 Band [_____] may be repeated for a maximum of 8 hours. MUSIC 356 Band [_____] and MUSIC 756 Band [_____] may be repeated.

MUSIC 757. Jazz Ensemble. 1 hours. Patterned after both contemporary big band and the large popular groups of the 1930's, this group devotes itself to the performance of the best jazz literature of the past and present. Open to all university students by audition. MUSIC 157 Jazz Ensemble may be repeated for a maximum of 4 hours. MUSIC 357 Jazz Ensemble and MUSIC 757 Jazz Ensemble may be repeated.

MUSIC 767. Jazz Choir. 1 hours. A mixed ensemble of singers selected to study and perform vocal jazz and other popular idioms. Auditions include university, community, and regional functions, often in conjunction with the Jazz Ensemble or Combo. Open to students by audition. MUSIC 167 Jazz Choir may be repeated for a maximum of 4 hours. MUSIC 367 Jazz Choir and MUSIC 767 Jazz Choir may be repeated.

MUSIC 776. Orchestra. 1 hours. Orchestral training including preparation and performance of standard literature for orchestra. opera, and oratorio. Open to all university students by audition. MUSIC 176 Orchestra may be repeated for a maximum of 4 hours. MUSIC 376 Orchestra and MUSIC 776 Orchestra may be repeated.

MUSIC 777. Art of Accompanying. 2 hours. Solving practical and artistic issues in accompanying. Discussion and application of various approaches to accompanying a diverse selection of instrumental and vocal works. Not open to those who have taken MUSIC 377 Accompanying Techniques. Prerequisite: Piano proficiency equal to MUSIC 450 Applied Music (Piano).

MUSIC 778. Advanced Chamber Music [_____] (subject, such as Brass, Strings, etc.). 1 hours. Prerequisite: Performance skill of senior recital level and assignment to the specific ensemble group. May be repeated.

MUSIC 779. Opera Workshop. 1-3 hours. Preparation of the singing actor with stage techniques for the lyric theater. Techniques of preparing works. Scenes from standard and contemporary operas and operettas. May be repeated. May be taken for honors. Open to students by audition.

MUSIC 787. University Choir. 1 hours. A large mixed ensemble that performs a wide variety of coral literature in at least one major concert each semester. Additional performances, both on and off campus, are often included as well. No audition required. MUSIC 187 University Choir may be repeated for a maximum of 4 hours. MUSIC 387 University Choir and MUSIC 787 University Choir may be repeated.

MUSIC 788. Chorale. 1 hours. Mixed ensemble of selected singers involved in the preparation and performance of choral music from the 16th century to the present. Activities include campus concerts, participation in oratorio production, spring tour and other performances. Open to students by audition. MUSIC 188 Chorale may be repeated for a maximum of 4 hours. MUSIC 388 Chorale and MUSIC 788 Chorale may be repeated.

MUSIC 810. Analytical Techniques. 3 hours. Analysis of music compositions from the various musical periods with an emphasis on structure and style, with their relationship to performance. Prerequisite: Satisfactory performance on the Graduate Music Theory Placement Examination and MUSIC 414 Forms and Analysis. Spring only.

MUSIC 819. History of Opera. 3 hours. The history of the opera as a lyric-dramatic medium. Emphasis on its sociological, theatrical and musical origins and the rise of national styles. Prerequisite: 6 hours of undergraduate music history, or consent of instructor.

MUSIC 822. Introduction to Graduate Study in Music. 2 hours. Techniques and materials of musical composition. Bibliography in music and music education. Fall only.

MUSIC 823. Music in the Renaissance. 3 hours. The development of music from 1450 to 1600 with emphasis on the major schools and composers. Prerequisites: Seven hours of music history and literature.

MUSIC 824. Music in the Baroque Era. 3 hours. The development of the styles of the principal composers and schools of composition of the Baroque Era.

MUSIC 825. Music in the Classical Period. 3 hours. Styles and techniques of the Stil Galant and the Rococo as antecedents to the classical period. Development of the tonal forms, emergence of the string quartet and art song, Comparison of the Baroque and Classical styles of opera and oratorio.

MUSIC 826. 19th-Century Romanticism in Music. 3 hours. 19th-Century romanticism in the works of representative composers of solo and orchestral literature, art song, opera and ballet.

MUSIC 827. Directed Study in Music History [_____]. 3 hours. Individual reading and research in music history from the Middle Ages to the present. Prerequisite for acceptance as graduate credit: Satisfactory performance on the Music History Preliminary Examination. May be repeated for a maximum of 6 hours if topic is different.

MUSIC 828. Advanced Vocal Pedagogy. 3 hours. Basic anatomy and physiology of the vocal mechanism; survey of current research/literature on the topic; examination of standard reference materials. Practical application of principles through supervised studio teaching. Prerequisite: Undergraduate vocal pedagogy or the equivalent.
MUSIC 829. The History of the Wind Band. 3 hours. The complete history of the wind band from Renaissance to present day. Instrument developments and uses. Significant works and composers. Current trends and a look to the future of the wind band medium.

MUSIC 831. Choral Literature (____). 3 hours. Styles, forms and national influence in choral music of selected historical periods; score study and listening. May be repeated if subject matter is different.

MUSIC 832. Directed Study in Music Education (____). 3 hours. Individual reading and research in music education. May be repeated for a maximum of 6 hours if topic is different. Prerequisite: Major in music education.

MUSIC 833. 20th Century Music. 3 hours. Analysis of the styles, techniques and philosophical concepts of the principal composers and schools of composition. Contemporary principles of music and art aesthetics and the influences of the major social and political events.

MUSIC 835. Foundations of Music Education. 3 hours. Historical and philosophical foundations of music education. Principles of music education as applied to curriculum, methods and evaluation. Spring only.

MUSIC 836. Psychology of Music Teaching. 3 hours. Examination and analysis of tests of musical aptitude and achievement, research relevant to music teaching, and learning theories applied to music teaching. Prerequisite: Undergraduate BME degree or permission of instructor. Fall only.


MUSIC 838. Advanced Instrumental Conducting II. 3 hours. Continuation of materials and techniques from MUSIC 738 Advanced Instrumental Conducting I. Preparation of material for Graduate Conducting Recital #2. Rehearsal techniques and preparation. Literature selection, rehearsal outlining, program notes and performance evaluation is included. Prerequisite: MUSIC 738 Advanced Instrumental Conducting I.

MUSIC 839. Introduction to Symphonic Literature. 3 hours. Survey of symphonic literature from the 18th-century through contemporary works. The class focuses especially on the symphony [with reference to related genres such as the concerto and the symphonic poem], tracing its course in major works from the classical period to the present.

MUSIC 850. Applied Music (____). 1-4 hours. Private study and public performance of advanced musical literature. Designed for students auditioning for permission to enroll in MUSIC 890 Thesis, on the same instrument. Prerequisite: Permission of instructor. May be repeated to a maximum of four hours. (Summer session credit, 1/2 of that listed in each instance.)

MUSIC 890. Thesis. 1-6 hours. May be repeated.

Nursing

NURS 205. Special Topics in Nursing (____). 1-3 hours. Study of nursing or a health related issue. Specific topic will be designated each time the course is offered. May be repeated if different course content. Will not apply to the nursing major. Prerequisites: None.

NURS 265. Health Promotion and Disease Prevention. 2 hours. Concepts essential for health promotion and disease prevention in persons across the lifespan. Levels of prevention, wellness, teaching methods, and planning significant to health in a variety of settings. Open to all majors.

NURS 300. Foundations of Nursing Practice. 5 hours. Lecture 3 hours, clinical experiences 6 hours per week. Concepts, knowledge and skills essential for implementation of the nursing process in structured settings. Prerequisite: Certified Nurse's Assistant Certification. Corequisite: NURS 301 Professional Nursing Seminar, NURS 320 Health Assessment and NURS 390 Pathophysiologic Bases of Nursing. Open to students who have been accepted to upper division clinical nursing major. May be taken for honors.

NURS 301. Professional Nursing Seminar. 1 hours. Assists with transition into a professional nursing program. Specific techniques for success in the nursing major. Corequisite: NURS 300 Foundations of Nursing Practice. Prerequisite: Admission to Upper Division Major. Offered on a pass-fail basis only. Open to students who have been accepted to upper division clinical nursing major.

NURS 302. Techniques for Nursing. 2 hours. Clinical laboratory 6 hours per week. Psychomotor skills necessary to perform therapeutic interventions are discussed, demonstrated, and practiced in a laboratory setting. Corequisite: NURS 300 Foundations of Nursing Practice. Open to students who have been accepted to upper division clinical nursing major.

NURS 303. Introduction to Public Health. 3 hours. An introduction to public health to introduce students from a variety of disciplines to the basic tenets of public health providing a history of public health, and introduction to the public health core functions and disciplines, (epidemiology, environmental health, biostatistics, health management and policy and social and behavior health), current events and issues in the field, and career opportunities.

NURS 304. Transition Into Baccalaureate Nursing Practice. 1 hours. The conceptual and theoretical basis of nursing practice and the utilization of knowledge and skills essential for the implementation of the nursing process. Prerequisite: Open to Registered Nurses only. May be taken for honors.

NURS 312. Neonatal Resuscitation. 2 hours. A self-study course focusing on the principles and procedures of hospital-based resuscitation of newborns. Physiology of the initiation of newborn respirations; the procedures of airway management, ventilation, chest compressions, and intubation; and the use of medications. Permission of instructor required.

NURS 314. Health Care Terminology and Drug Calculations. 3 hours. Health care terminology and math skills applied to solving problems of drug dosage calculations, interpretation of physician/health care provider's orders, and instructions on how to read drug labels. This course is for pre-nursing, nursing, and allied health professionals pursuing a possible career in the healthcare field. Course is self-paced design. Open to all majors.

NURS 320. Health Assessment. 3 hours. Lecture 2 hours, Laboratory 3 hours weekly. The nurse's role in performing a health assessment. Theory and clinical will focus on interviewing skills to obtain health history data, on physical assessment techniques, health assessment finding, and documentation. Theory and practice will enable the student to describe and record the health history and the findings. Lab Final (complete head-to-toe assessment) obtained while performing a physical assessment. Corequisite: NURS 300 Foundations of Nursing Practice. Open to students who have been accepted to upper division clinical nursing major. May be taken for honors.

NURS 370. Women's Health Issues. 2 hours. Overview of health care needs and common health concerns of women throughout the life cycle. Emphasis will be placed on preventative measures and use of available community resources.

NURS 390. Pathophysiological Bases of Nursing. 3 hours. Study of disruptions of physiology in the human organism as a basis for nursing intervention. Includes inflammatory process, immune response, neoplasia, trauma, fluid and electrolyte and acid-base imbalances. Prerequisites: BIOL 257/258 Anatomy and Physiology/ Laboratory, BIOL 371/372 General Microbiology/Laboratory and CHEM 105/106 Introductory Chemistry/Laboratory or CHEM 107/108 Chemistry for Life Sciences/Laboratory. RNs may enroll with special permission. Other majors may enroll with special permission. May be taken for honors.

NURS 405. Health Alterations in Older Adults. 3 hours. Lecture 2 hours and clinical experiences 3 hours weekly. Overview of health aging and chronic conditions found in older adults and a variety of social issues needed for nursing care of the aging. Clinical experience includes nursing care of older adults in long-term care facilities, private homes, and community agencies. Prerequisite: Successful completion of Level 1 nursing courses. Open to students engaged in study toward minor in Gerontology with permission. May be taken for honors.

NURS 410. Nursing the Adult Medical-Surgical Client. 7 hours. Lecture 4 hours and clinical experiences nine hours per week. Uses the nursing process to facilitate adaptive responses of clients to chronic and acute physiological problems. Emphasis on adults and the wellness-illness continuum in hospital and community settings. Prerequisite: Successful completion of Level I nursing courses. May be taken for honors.

NURS 440. Pharmacology in Nursing I. 2 hours. Introduction to the nurse's role in pharmacological therapy of individuals. The nursing process will be utilized to examine responses to drug therapy. Prerequisite: Successful completion of Level I courses or permission of instructor. May be taken for honors.

NURS 441. Pharmacology in Nursing II. 1 hours. The nurse's role in an acute/critical pharmacological therapy. The nursing process will be utilized to examine responses to drug therapy. Prerequisite: NURS 440 Pharmacology in Nursing I or permission of the instructor. May be taken for honors.


NURS 452. Nursing the Childbearing Family. 3 hours. This course introduces the learner to concepts and theories essential for implementation of the nursing process with the childbearing family. Adaptive/ maladaptive responses are identified and bi-psycho-social adaptation facilitated in the preconceptual, prenatal, intrapartal, postpartal, and neonatal phases of the childbearing cycle. Prerequisite: Successful completion of Level I nursing courses. May be taken for honors.
NURS 457. Nursing the Child and the Childbearing Family Practicum. 3 hours. Clinical experiences nine hours per week. This course introduces the learner to psychomotor skills essential for implementation of the nursing process with the childbearing family and with the child and family. This course provides the learner the opportunity to apply theory and content from NURS 452 Nursing the Childbearing Family and NURS 462 Nursing and Child and Family. Clinical experience takes place in selected hospitals, offices, and community settings. Graded on a pass-fail basis only. Corequisite: NURS 452 Nursing the Childbearing Family and NURS 462 Nursing the Child and Family or special permission.

NURS 462. Nursing the Child and Family. 3 hours. This course utilizes the nursing process to facilitate adaptive responses in the child and family. Focus is on infancy through adolescence as related to normal growth and development and minor and major maladaptations. Prerequisite: Successful completion of Level I nursing courses. May be taken for honors.

NURS 470. Nursing the Psychiatric/Mental Health Client. 5 hours. Lecture 3 hours and clinical experiences 6 hours weekly. Formulates a philosophy of mental health for personal and professional lives. Classic signs and symptoms of mental illnesses, alienation, identity crises, sudden life changes, troubled family interactions, poverty, experiences of death. Synthesizes social-psychological, psychobiology research within hospitals and communities. Prerequisite: Successful completion of Level I nursing courses. May be taken for honors.

NURS 482. Research in Nursing. 2 hours. Introduction to research methods as a basis for investigation of nursing problems. Presents basic steps of the research process and includes critical evaluation of nursing studies. Prerequisite: Successful completion of Level I courses or permission of instructor. May be taken for honors.

NURS 502. Community Nursing. 4 hours. Lecture two hours and clinical experiences six hours per week. Concepts of nursing and public health applied to promoting health of families and other population aggregates, and assessing health states and resources available to specific populations. Includes facilitation of adaptive responses of populations experiencing situations of varying complexity. Clinical experiences take place in selected community settings. Prerequisite: Successful completion of Level II nursing courses or special permission. May be taken for honors.

NURS 521. Leadership and Management Function. 3 hours. Exploration of leadership roles and nursing management functions and their application to current practice in today’s healthcare environment. Developing decision making skills for application in management of nursing care. Prerequisite: Successful completion of Level II courses. May be taken for honors.

NURS 525. Advanced Medical Surgical Nursing of the Adult Client. 6 hours. Lecture four hours and clinical experiences six hours per week. Focuses on the nursing process to facilitate adaptive human responses of adults with complex/multiple medical-surgical problems in a variety of settings. Prerequisite: Successful completion of Level I and II nursing courses; all general education and nursing prerequisites in student file documenting successful completion. May be taken for honors.

NURS 570. Special Topics in Nursing (____). 1-6 hours. Nursing elective. Intensive study of nursing or health problem, trend, or issue. Specific topic will be designated each time course is offered. May be repeated if different course content. Prerequisite: Nursing major or approval of instructor.

NURS 580. Readings in Nursing. 1-6 hours. A nursing elective. Directed individual reading in selected topics in nursing. Offered by appointment to registered nurses desiring to update and increase knowledge in specified areas and for generic students wishing additional elective credit in nursing. May be repeated if subject matter differs.

NURS 599. Internship in Nursing Practice. 3 hours. A clinical experiences capstone course in selected acute care settings, with emphasis on assuming the role of a professional nurse, managing care for a group of clients, and synthesizing nursing knowledge. Students practice clinical skills while working with clinical mentors under the direction of faculty. Pass-fail only. Prerequisite: Successful completion of all nursing courses.

NURS 605. Independent Study (____). 1-6 hours. Development of a project under direct supervision of appropriate faculty member. Prerequisite: Completion of Level I nursing courses or permission of instructor. May be repeated if subject matter differs.

NURS 712. Issues and Roles in Advanced Nursing Practice. 3 hours. Exploration of role development in advanced practice nursing. Advanced practice nursing as influenced by rural, social, cultural, political, ethical, and economic forces interacting with complex client/family systems is examined. Past, present, and future roles of advanced practice nurses are explored. Strategies for change in health care delivery systems and health care policy are delineated. Prerequisite: Admission to MSN program or special permission.

NURS 723. Client/Family Health: Theory, Assessment and Promotion. 2 hours. Exploration of advanced family nursing through theories of human and family development, client and family assessment and health promotion across the lifespan. Family interviewing techniques, assessment tools, health education/promotion, case management, and a population focus in a rural health care environment are emphasized. Prerequisite: Admission to the RN to BSN track or MSN program or special permission. Corequisite: NURS 724 Client/Family Health: Theory, Assessment, and Promotion Practicum. May be taken for honors.

NURS 724. Client/Family Theory, Assessment, and Promotion Practicum. 2 hours. (6 practicum hours per week). Application of concepts of advanced family nursing through practicum with clients and their families across the lifespan. Opportunity for selection of families to enhance specialty focus. Emphasis on assessment, health education and intervention, application of relevant client family theories and family nursing in a rural environment. Prerequisite: Admission to the RN to BSN track or MSN program or special permission. Corequisite: NURS 723 Client/Family Health: Theory, Assessment, and Promotion. May be taken for honors.

NURS 745. Transcultural Health Care. 1-3 hours. Focuses on concepts and theories of transcultural care and issues related to health care practices for culturally diverse populations. General concepts and aspects of a specific cultural group will be studied. Open to all majors.

NURS 746. Practicum in Transcultural Health Care. 1 hours. Clinical experience providing health care in a specific cultural setting. Corequisite: NURS 745 Transcultural Health Care, Permission of instructor required.

NURS 760. Nursing and Health Care System Management. 2 hours. Leadership and administrative theory and management strategies for nursing advanced practice role and healthcare. Emphasis on management of organizational resources and legal/regulatory issues and processes within the rural healthcare delivery system. Prerequisites: Admission to the MSN program or special permission. Corequisite: NURS 761 Nursing and Health Care System Management.

NURS 800. Theories Related to Nursing Practice. 2 hours. Comparison of nursing models and theories through exploration of theory building and levels of theory. Analysis of theories relevant to nursing practice and application of theory to nursing research. Prerequisite: Admission to MSN program or special permission.

NURS 803. Advanced Health Assessment. 2 hours. Course is designed to assist students to refine history taking, psychosocial assessment, and physical assessment skills. Content focuses on assessment of individuals throughout the life span. Emphasis is placed on detailed health history taking, differentiation, interpretation, and documentation of normal and abnormal findings. The course includes lecture, discussion, and demonstration of history taking and an integrated physical assessment. Prerequisite: Admission to MSN program or special permission. Co-requisite: NURS 804 Advanced Health Assessment: Practicum.

NURS 804. Advanced Health Assessment: Practicum. 1 hours. (3 practicum hours per week). This clinical laboratory experience reviews and builds upon the students previous skills in physical assessment. It offers more indepth and advanced content in the area of health assessment and provides the foundation for the advanced practice nursing role. Directed laboratory and simulated experiences afford the opportunity to apply the clinical decision making process to accurately and efficiently gather and analyze subjective and objective data. In addition, students will be provided the opportunity to develop health assessment knowledge and skills in selected field work experiences. Prerequisite: Admission to MSN program or special permission. Corequisite: NURS 803 Advanced Health Assessment.

NURS 805. Special Investigations. 1-6 hours. Independent study in selected nursing topics relevant to student interests and needs. May be repeated for a maximum of six hours.

NURS 806. Primary Care I: Management of Common Health Problems Throughout the Life Span. 3 hours. This course focuses on the management of common health problems seen in individuals/families through the life span. Applications of current research and theory based interventions appropriate for management by advanced registered nurse practitioners will be stressed. Strategies and protocols to manage common health problems, in urban/rural clients/families. Interventions to include pharmacological therapy to restore individual/family’s level of pre-Illness health, and positive lifestyle behaviors are emphasized. Prerequisites: Admission to FNP track, NURS 712 Issues and Roles in Advanced Nursing Practice, NURS 723 Client/Family Health: Theory, Assessment, and Promotion/NURS 724 Client/Family Health: Theory, Assessment, and Promotion Practicum, NURS 800 Theories Related to Nursing Practice, NURS 803 Advanced Health Assessment/NURS 804 Advanced Health Assessment: Practicum, NURS 818 Advanced Pharmacology, and NURS 892 Research Methods in Nursing/NURS 893 Nursing Research Seminar and NURS 899 Advanced Pathophysiology or special permission. Corequisites: NURS 807 Primary Care I Practicum: Management of Common Health Problems Throughout the Life Span.
NURS 807. Primary Care I: Practicum—Management of Common Health Problems Throughout the Life Span. 3 hours. (9 practicum hours per week). Clinical application focuses on the management of common health problems seen in individuals/families through the life span, current research and theory based interventions appropriate for management by beginning advanced registered nurse practitioners. Utilizes strategies and protocols to manage common health problems, interventions to include pharmacological therapies to restore urban/rural individual/family's level of pre-illness health, and positive lifestyle behaviors. Collaboration and consultation (including referrals) with appropriate health care providers is emphasized. Corequisites: NURS 806 Primary Care I: Management of Common Health Problems Throughout the Life Span.

NURS 809. Advanced Pathophysiology. 3 hours. An in-depth scientific knowledge base relevant to selected pathophysiological states confronted in primary care is explored. This information provides a basis for the formulation of clinical decisions related to diagnostic tests and the initiation of therapeutic regimens. Age specific and developmental alterations are correlated with clinical diagnosis and management. Application is made through age-appropriate examples. Prerequisite: Admission to graduate nursing program.

NURS 812. Primary Care II: Management of Complex Health Problems Throughout the Life Span. 3 hours. This course focuses on the management of complex health problems seen in individuals/families throughout the life span. Applications of current research and theory based interventions appropriate for management by advanced registered nurse practitioners are analyzed. Strategies and protocols to manage complex problems, in urban/rural clients/families. Interventions to included pharmacological therapies to restore individual/family levels of pre-illness health, including secondary and tertiary prevention are emphasized. Prerequisites: NURS 806 Primary Care I: Management of Common Health Problems Throughout the Life Span/NURS 807 Primary Care I Practicum: Management of Common Health Problems Throughout the Life Span. Corequisite: NURS 813 Primary Care II Practicum: Management of Complex Health Problems Throughout the Life Span.

NURS 813. Primary Care II Practicum—Management of Complex Health Problems Throughout the Life Span. 3 hours. (9 practicum hours per week). Clinical application focuses on the management of complex health problems seen in the individuals/families throughout the life span, current research and theory based interventions appropriate for management by the intermediate advanced registered nurse practitioner student. Emphasis is on assessment, clinical decision making, pharmacological therapies, urban/rural environmental factors as well as legal, ethical and economic concerns related to the presenting complex health problems. Collaboration and consultation (including referrals) with appropriate health providers is emphasized. Corequisites: NURS 812 Primary Care II: Management of Complex Health Problems Throughout the Life Span.

NURS 818. Advanced Pharmacology. 3 hours. Clinical application of specific categories of drugs, commonly encountered in primary care settings. Use of protocols, prescription writing, ethical/legal, and economic issues surrounding advanced nurses' role in prescribing and monitoring pharmacologic therapies in ambulatory settings. Age appropriate content related to pharmacokinetics, dosages, expected outcomes, and side effects. First versus second line drugs, alternate drugs, interactions, dosages, patient education, and compliance issues addressed. Nurse's role and responsibilities are explored. Application through case studies.

NURS 828. Nurse Practitioner Preceptorship I. 3 hours. Capstone clinical experiences averaging nine hours per week; total 144 hours. The FNP student will implement the role of the nurse practitioner. The course is designed for the FNP student to relate theory to practice, to include pharmacological therapies, protocols and strategies for legal/ethical/economic issues in the advance practice role, delivering primary care in family practice or equivalent settings to individuals/families. Prerequisites: NURS 806 Primary Care I: Management of Common Health Problems Throughout the Life Span/NURS 807 Primary Care I Practicum: Management of Common Health Problems Throughout the Life Span. Corequisites: NURS 812 Primary Care II: Management of Complex Health Problems Throughout the Life Span/NURS 813 Primary Care II Practicum: Management of Complex Health Problems Throughout the Life Span.

NURS 829. Nurse Practitioner Preceptorship II. 3 hours. Capstone clinical experiences averaging 9 hours per week; total 144 hours. The FNP student will continue to develop in the role of the nurse practitioner. The course is designed for the FNP student to synthesize theory into practice, to include pharmacological therapies, protocols and strategies for legal/ethical/economic issues in the advance practice role, delivering primary care in family practice or equivalent settings to individuals/families. Prerequisites: NURS 828 Nurse Practitioner Preceptorship I.

NURS 830. Family Process/Management of Acute Emergent Illness (____). 1 hour. Theory and research supporting the role of the advanced family nurse practitioner is explored. Family experiences acute health problems common to the rural Midwest. Prerequisites: NURS 712 Issues and Roles in Advanced Nursing Practice, NURS 723 Client/Family Health: Theory, Assessment, and Promotion/NURS 724 Client/Family Health: Theory, Assessment, and Promotion Practicum, NURS 808 Theories Related to Nursing Practice, NURS 803 Advanced Health Assessment Practicum, NURS 818 Advanced Pharmacology and NURS 892 Research Methods in Nursing/NURS 893 Nursing Research Seminar or permission of instructor. Corequisites: NURS 831 Family Process/Management of Acute Emergent Illness: Practicum and NURS 809 Advanced Pathophysiology.

NURS 831. Family Process/Management of Acute Emergent Illness: Practicum (____). 3 hours. (9 practicum hours per week). Practicum course includes application of theory, research, advanced practice role in rural family nursing for families experiencing acute health problems. Opportunity for selection of families to enhance clinical focus. Corequisite: NURS 830 Family Process/Management of Acute Emergent Illness (____).

NURS 835. Family Process/Management of Chronic Illness (____). 1 hour. Theory and research supporting the practice of advanced family nursing with families when a member has a significant chronic illness. The experiences of families with chronic problems common to the rural midwest. Prerequisite: NURS 712 Issues and Roles in Advanced Nursing Practice, NURS 723 Client/Family Health: Theory, Assessment, and Promotion/NURS 724 Client/Family Health: Theory, Assessment, and Promotion Practicum, NURS 808 Theories Related to Nursing Practice, NURS 803 Advanced Health Assessment Practicum, NURS 818 Advanced Pharmacology, NURS 892 Research Methods in Nursing/NURS 893 Nursing Research Seminar or permission of instructor. Corequisites: NURS 836 Family Process/Management of Chronic Illness: Practicum.

NURS 836. Family Process/Management of Chronic Illness: Practicum (____). 3 hours. (9 practicum hours per week). Practicum course includes application of theory, research, advanced practice role in rural family nursing for families dealing with chronic health problems. Opportunity for selection of families to enhance clinical focus. Corequisite: NURS 835 Family Process/Management of Chronic Illness (____).

NURS 840. Management of Clients/Families Within the Health Care System Practicum (____). 2 hours. (6 practicum hours per week). Capstone experience for synthesis and application of theory, research, and clinical skills to advanced practice management of problems of groups of families, including advocacy. Opportunity for selection of families to enhance clinical focus. Prerequisites: NURS 830 Family Process/Management of Acute Emergent Illness (____), NURS 831 Family Process/Management of Acute Emergent Illness: Practicum (____). May be taken as a prerequisite or corequisite: NURS 835 Family Process/Management of Chronic Illness (____)/NURS 836 Family Process/Management of Chronic Illness: Practicum (____).

NURS 850. Curriculum Development. 3 hours. The nature of education roles, curriculum design, instructional process, evaluation, and issues in nursing education. Prerequisite: Admission to MSN program or special permission. NURS 854. Teaching Strategies: Practicum. 1 hour. (3 hours practicum per week). Practicum for implementation of teaching plan, use of technology in the classroom. Prerequisite: Admission to MSN program or permission of instructor. Corequisite: NURS 855 Teaching Strategies.

NURS 855. Teaching Strategies. 2 hours. The development of teaching methods based on teaching/learning theory in nursing education. Emphasis on evaluation of learning outcomes. Prerequisite: Admission to MSN program or permission of instructor. Corequisite: NURS 854 Teaching Strategies: Practicum.

NURS 856. Education Practicum (____). 2 hours. (6 practicum hours per week). Preparation for an education role in nursing. Prerequisites: Completion of both common and advanced practice core courses with exception of NURS 890 Research Thesis/NURS 891 Research Thesis Practicum; research, and clinical skills, and either NURS 850 Curriculum Development or NURS 855 Teaching Strategies/NURS 854 Teaching Strategies: Practicum. Corequisites: NURS 850 Curriculum Development or NURS 855 Teaching Strategies/NURS 854 Teaching Strategies: Practicum.

NURS 865. Strategic Development. 3 hours. Analyzes the overall plan for applying methods and techniques of strategic development in pursuit of an organizational goal. Prerequisite: NURS 866. Administration Practicum (____). 2 hours. Clinical practicum 6 hours per week. Prepares the student for an administrative role in nursing and health care. Prerequisites: Completion of both common and advanced practice core courses (with exception of NURS 890 Research Thesis/NURS 891 Research Thesis Practicum; research, and clinical specialty courses, and either NURS 760 Nursing Management/NURS 761 Nurse Management: Practicum or NURS 865 Strategic Development or special permission. Corequisites: NURS 760 Nursing and Health Care System Management/NURS 761 Nurse and Health Care System Management: Practicum or NURS 865 Strategic Development.

NURS 890. Research and Thesis. 1-6 hours. 1-6 hours depending on the proposal and recommendation of the advisor. To be taken by students in Option I for Master of Science in Nursing. May be repeated for a total of 6 hours. Prerequisite: NURS 892 Research Methods in Nursing and NURS 893 Nursing Research Seminar.

NURS 891. Research Problem. 1-6 hours. To be taken by students in Option II for Master of Science in Nursing. May be repeated for a total of 6 hours. Prerequisites: NURS 892 Research Methods in Nursing and NURS 893 Nursing Research Seminar.

NURS 892. Research Methods in Nursing. 2 hours. Issues related to research designs, data production, data management, data analysis, and protection of subjects. The steps of the research process learned in baccalaureate research content are discussed in greater depth with a focus on the significance of nursing theory as a basis for research. Prerequisite: Graduate Level Statistics course; admission to MSN program or permission of instructor. Corequisite: NURS 893 Nursing Research Seminar.
NURS 893. Nursing Research Seminar. 1 hour. The purpose of this course is to identify researchable problems and prepare a research proposal. Trends in society and nursing that influence the direction of nursing research are identified. Specific clinical practice problems are developed and are posed as hypotheses, research questions or objectives. Methods to address problems are developed. Prerequisite: Graduate Level Statistics course; admission to MSN program or special permission. Corequisite: NURS 892 Research Methods in Nursing.

Plastics Engineering Technology

PET 180. General Plastics Laboratory. 1 hour. (2 hours laboratory). Laboratory experiments involving plastic materials and processes used in plastics industry. Concurrent enrollment in PET 185 General Plastics required.

PET 185. General Plastics. 3 hours. Introductory plastics course including topics in polymers and applications, processing and fabrication methods, tooling and molds, and testing. Concurrent enrollment in PET 180 General Plastics Laboratory is required.

PET 281. Plastics Testing Technology. 3 hours. (3 hours lecture). Theories and practical aspects of industrial and scientific testing and characterization procedures of plastics. Understanding of properties, testing, identification, characterization, specification, and standardization of polymers. Prerequisites: PET 185 General Plastics, PET 180 General Plastics Laboratory, MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus, CHEM 215 General Chemistry I and CHEM 216 General Chemistry II Laboratory.

PET 370. Thermoplastic Resins Laboratory. 1 hour. (2 hours laboratory) Techniques and procedures used for the testing, evaluation and selection of thermoplastic resins. Corequisite: PET 371 Thermoplastic Resins. Prerequisites: PET 281 Plastics Testing Technology, CHEM 320 Introductory Organic Chemistry and CHEM 326 Organic Chemistry Laboratory. May be taken for honors.

PET 371. Thermoplastic Resins. 3 hours. Study of thermoplastic materials that are commercially available for the plastics industry. Review of the manufacture, properties and applications of widely utilized resins. The chemical structure - property relationships (crystallinity, morphology, copolymerization, molecular weight, and physical properties). Corequisite: PET 370 Thermoplastic Resins Laboratory. Prerequisites: PET 281 Plastics Testing Technology, CHEM 320 Introductory Organic Chemistry and CHEM 326 Organic Chemistry Laboratory. May be taken for honors.

PET 373. Plastic Processing I Laboratory. 1 hour. (2 hours laboratory) Set-up, troubleshooting, and production with injection molding, extrusion, and blow molding machinery. Production economics, safety, material handling, auxiliary equipment, and maintenance. Corequisite: PET 373 Plastics Processing I. Prerequisites: PET 281 Plastics Testing Technology, CHEM 320 Introductory Organic Chemistry and CHEM 326 Organic Chemistry Laboratory. May be taken for honors.

PET 374. Thermoset Resins Laboratory. 1 hour. (2 hours laboratory) Practical experience in the techniques and procedures used for the testing, evaluation and selection of thermoset resins. Corequisite: PET 375 Thermoset Resins. Prerequisites: PET 281 Plastics Testing Technology, CHEM 320 Introductory Organic Chemistry and CHEM 326 Organic Chemistry Laboratory. May be taken concurrently with PET 371 Thermoplastic Resins and PET 370 Thermoplastic Resins Laboratory. May be taken for honors.

PET 375. Thermoset Resins. 3 hours. Study of thermoset materials commercially available for the plastics industry. Review of the manufacture, properties and applications of widely utilized resins. Chemical structure-property relationships (crosslinking and formulation techniques of thermoset resins are examined). Emphasis is made of the role of thermosets as matrix/binder in polymeric composites. Corequisite: PET 374 Thermoset Resins Laboratory. Prerequisites: PET 370 Thermoplastic Resins Laboratory and PET 371 Thermoplastic Resins. May be taken concurrently with PET 376 Plastics Processing II Laboratory and PET 377 Plastics Processing II. May be taken for honors.

PET 376. Plastic Processing II Laboratory. 1 hour. (2 hours laboratory). Practical demonstration of various Thermoset and Thermoplastic material/processes. (Compression, Rotational, Transfer, and Vacuum Bag Molding (Composites), Elastomer formulation, and Thermofoming). Parts/test specimens are produced with testing to evaluate material/process optimization. Prerequisites or may be taken concurrently with PET 375 Thermoset Resins and PET 374 Thermoset Resins Laboratory. May be taken for honors.

PET 377. Plastic Processing II. 3 hours. (3 hours lecture) Thermoset and Thermoplastic materials and processes. Polymer, additive, and reinforcement utilization with emphasis placed on material/process to application selection. Corequisite: PET 376 Plastics Processing II Laboratory. Prerequisite or may be taken concurrently with PET 375 Thermoset Resins and PET 374 Thermoset Resins Laboratory. May be taken for honors.

PET 585. Mold Design. 3 hours. (1 hour lecture, 4 hours laboratory). Methods and systems used in design of tooling for all major plastic processing methods. Design projects will be completed using computer-aided design and analysis tools with accepted industry standards. Prerequisite: MECET 121 Engineering Graphics I and MECET 226 Computer Aided Design. May be taken for honors.

PET 586. Senior Project. 3 hours. (3 hours lecture). A ‘capstone’ plastics course incorporating functional part selection and design, technical and processing analysis, and suitable polymeric material selection. Based on sound design, cost and quality testing and evaluation, and prototype manufacturing of the plastics part. Prerequisite: Senior status (over 90 hours) or written permission of instructor.

PET 673. Advanced Injection Molding. 3 hours. (1 hour lecture, 4 hours laboratory). An advanced course focused on Injection Molding. Emphasizing process control, troubleshooting, quality and automation. Prerequisite: PET 373 Plastics Processing I and PET 372 Plastics Processing Laboratory.

PET 684. Plastics Part Design. 3 hours. Methods and systems used in the development of plastic products. Design projects will be completed using computer-aided design and analysis tools with accepted industry standards. Emphasis is placed on material selection, engineering property analysis, cost analysis, and rapid prototyping. Prerequisite: MECET 121 Engineering Graphics I, PET 180 General Plastics Laboratory and PET 185 General Plastics, PET 373 Plastics Processing I, PET 377 Plastics Processing II, PET 371 Thermoplastic Resins, PET 375 Thermoset Resins. May be taken for honors.

PET 685. Composites. 3 hours. (3 hours lecture). Raw materials, processing, fabrication, testing, properties of composites, and application. Prerequisite: PET 180 General Plastics Laboratory and PET 185 General Plastics, CHEM 320 Introductory Organic Chemistry and CHEM 326 Organic Chemistry Laboratory, or CHEM 325 Organic Chemistry I and CHEM 326 Organic Chemistry Laboratory or equivalent. For graduate students or senior plastics majors who have taken all undergraduate plastics courses. May be taken for honors.

PET 882. Advanced Plastics Materials and Processes. 3 hours. Overview of thermoplastic and thermoset materials and processes. Laboratory work required. Not open to graduates of PSU Plastics Engineering Technology undergraduate degree.

PET 885. Composite Materials and Testing. 3 hours. New and advanced techniques of processing composites including resin structures and non-destructive testing techniques associated with composites. Laboratory work required.

Philosophy

PHIL 103. Introduction to Philosophy. 3 hours. Introduction to concepts and methods of philosophy through study of representative thinkers and issues.

PHIL 105. Ethics. 3 hours. Introduction to reflective study of moral choice, standards of right and wrong, the nature of the good life. Ethical theories applied to personal and social decision-making.

PHIL 111. Ethics: Applied Emphasis (3 hours). 3 hours. Introduction to moral philosophy through its application to contemporary ethical issues. May be repeated if topic varies.

PHIL 112. Biomedical Ethics. 3 hours. Major theories of moral obligation and justice and their application to biological sciences and medical practices. This course philosophically investigates ethical issues of biological health, reproduction, technology and research. Issues studied may include: just health care, euthanasia, eugenics, the human genome project, genetic engineering, cloning, and stem cell research.

PHIL 113. Business Ethics. 3 hours. Major theories of moral obligation and justice and their application to business practices. This course philosophically investigates ethical issues of business. Issues studied may include: corporate responsibility, government regulation, investment and production, advertisement, the environment, and preferential hiring.

PHIL 114. Environmental Ethics. 3 hours. Major theories of moral obligation and justice and their application to the environment and environmental issues. This course philosophically investigates ethical issues that arise from the use and exploitation of the environment, such as the value of biodiversity, obligations to future generations, obligations to non-humans, and the ethics of environmental risk management.

PHIL 208. Logic and Critical Thinking. 3 hours. Study of the standards of good reasoning, with emphasis upon practical techniques for distinguishing valid from invalid arguments, understanding deduction and induction, identifying presuppositions, and evaluating informal reasoning.

PHIL 231. World Religions. 3 hours. A nonsectarian introduction to the great religious traditions of the world, including Hinduism, Buddhism, Judaism, Christianity, and Islam.

PHIL 310. History of Ancient Philosophy. 3 hours. Examination of most significant philosophies of ancient and medieval periods. Includes Presocratics, Socrates, Plato, Aristotle, and Stoics, Augustine and Aquinas.

PHIL 311. History of Modern Philosophy. 3 hours. Philosophical significance of the Scientific Revolution. The "problem of knowledge." Examination of Continental rationalism, British empiricism and German idealism. Includes study of Descartes, Locke, Berkeley, Hume, Kant and others.
PHIL 312. Contemporary Philosophy. 3 hours. Critical study of twentieth century philosophers in Anglo-American and Continental traditions, including pragmatism, logical empiricism, phenomenological and existentialist thinkers.

PHIL 313. Topics in Philosophy. 3 hours. Intensive study of a selected topic in philosophy. May be repeated for a maximum of six hours when subject matter is different.

PHIL 645. Directed Readings in Philosophy. 1-3 hours. Individual study and research in selected areas of philosophy. May be repeated for a maximum of 6 hours. Prerequisite: Permission of instructor.

Physics

PHYS 100. College Physics I. 4 hours. Mechanics; heat; sound. Prerequisite: MATH 113 College Algebra or MATH 110 College Algebra with Review, or MATH 126 Pre-Calculus or MATH 150 Calculus I. Concurrent enrollment required in PHYS 130 Elementary Physics Laboratory I. Closed to students with credit in PHYS 104 Engineering Physics I.

PHYS 101. College Physics II. 4 hours. Algebra-based basic electrical circuits; optics; relativity; atomic structure. Prerequisite: PHYS 100 College Physics I. Concurrent enrollment required in either PHYS 131 College Physics Laboratory II (preferred) or PHYS 132 Engineering Physics Laboratory II. Closed to students with credit in PHYS 105 Engineering Physics II.

PHYS 102. Undergraduate Seminar. 1 hour. Survey of current research areas in physics and related technologies with emphasis on local research activities. For science, engineering, and engineering technology majors. Recommended to be completed prior to completing PHYS 104/105 Engineering Physics I and II. May be repeated.

PHYS 104. Engineering Physics I. 4 hours. Mechanics; heat; sound. For science, engineering, and engineering technology students. Prerequisite: MATH 150 Calculus I. Concurrent enrollment required in PHYS 130 Elementary Physics Laboratory I. Closed to students with credit in PHYS 100 College Physics I.

PHYS 105. Engineering Physics II. 4 hours. Calculus-based electrostatics; magnetism; Maxwell’s equations; light; optics. For science, engineering, and engineering technology majors. Prerequisite: PHYS 104 Engineering Physics I or PHYS 100 College Physics I and MATH 150 Calculus I. Concurrent enrollment required in either PHYS 132 Engineering Physics Laboratory II (preferred) or PHYS 131 College Physics Laboratory II. Closed to students with credit in PHYS 101 College Physics II.

PHYS 110. Introductory Mathematical Physics. 1 hour. Applications of basic techniques of calculus and vectors to introductory physics topics, particularly kinematics, statics, and dynamics. Recommended for students preparing to take PHYS 104 Engineering Physics I. Pre-requisite/co-requisite: MATH 150 Calculus I.

PHYS 114. Physical Science Laboratory for Teachers. 2 hours. Current techniques in science education are emphasized to expand and enhance the science content proficiency of future educators. Prerequisites: PHYS 171 Physical Science and PHYS 172 Physical Science Laboratory.

PHYS 130. Elementary Physics Laboratory I. 1 hour. Experiments in mechanics; heat; sound. Concurrent enrollment required in PHYS 100 College Physics I or PHYS 104 Engineering Physics I.

PHYS 131. College Physics Laboratory II. 1 hour. Experiments in basic electrical circuits, optics, and color. Concurrent enrollment required in PHYS 101 College Physics II (preferred) or PHYS 105 Engineering Physics II.

PHYS 132. Engineering Physics Laboratory II. 1 hour. Experiments in electricity, magnetism, circuits, VOM meters and oscilloscopes; optics. Concurrent enrollment required in either PHYS 105 Engineering Physics II (preferred) or PHYS 101 College Physics II.

PHYS 160. Physical Geology. 3 hours. Introduction to minerals and rocks on the earth’s surface and interior; dynamic geological processes, including plate tectonics, volcanism, orogeny, glaciation, weathering, and erosion. Co-requisite: PHYS 165 Physical Geology Laboratory.

PHYS 162. Physical Oceanography. 3 hours. A descriptive study of ocean currents and circulation, structures and composition of sea water, ocean floor morphology and sedimentation, tides, waves, and coastal processes. Co-requisite: PHYS 163 Physical Oceanography Laboratory.


PHYS 165. Physical Geology Laboratory. 1 hour. Laboratory exercises to accompany PHYS 160 Physical Geology, including mineral properties and rock identification, landforms and structural geology, seismic data manipulation, and interpretation of geologic maps. Co-requisite: PHYS 160 Physical Geology.

PHYS 166. Meteorology. 3 hours. A descriptive survey of atmospheric science integrating the concepts of weather patterns, climate, atmospheric composition and structure, pressure, wind, and impact of pollution. Co-requisite: PHYS 167 Meteorology Laboratory.

PHYS 167. Meteorology Laboratory. 1 hour. Exercises, activities and experiments to accompany PHYS 166 Meteorology. Co-requisite: PHYS 166 Meteorology.

PHYS 171. Physical Science. 3 hours. The principles of mechanics, electricity and magnetism, atomic science, earth and space science. Three hours of lecture will be accompanied by two hours of hands-on laboratory experiences weekly. Concurrent enrollment required in PHYS 172 Physical Science Laboratory. Closed to students majoring or minoring in the physical sciences or having had PHYS 371 The Physical World.

PHYS 172. Physical Science Laboratory. 1 hour. Concurrent enrollment in PHYS 171 Physical Science required. Closed to students majoring or minoring in Physics or Chemistry.

PHYS 175. Descriptive Astronomy. 3 hours. The solar system, stellar astronomy, the galaxy, cosmology. Corequisite: PHYS 176 Astronomy Laboratory.

PHYS 176. Astronomy Laboratory. 1 hour. Practical experiments related to astronomy. Light and optics, spectra, mechanics, magnetism, radioactivity; sky observations of constellations, planets, stars and galaxies. Corequisite of either PHYS 175 Descriptive Astronomy or PHYS 375 Solar System Astronomy.

PHYS 220. Engineering Mechanics I-Statics. 3 hours. Study of forces, couples, vector mathematics, rigid body equilibrium, structures, distributed forces, geometric properties, beam analysis, friction, virtual work and stability of equilibrium. Prerequisites: MATH 150 Calculus I, (or concurrent) and PHYS 104 Engineering Physics I or PHYS 100 College Physics I.

PHYS 240. Introductory Physics Topics. 1-3 hours. Lecture or seminar in selected introductory topics of physics.

PHYS 260. Historical Geology. 5 hours. Lecture/Laboratory. Introduction to the geologic evidence of the history of life on Earth. Topics include: Geologic time, paleontology and the fossil record, stratigraphy and the major tectonic and rock-forming events. Prerequisites: PHYS 160/165 Physical Geology/Laboratory.

PHYS 264. Environmental Geology. 4 hours. Lecture/Laboratory. Mechanisms and consequences of natural disasters, human interaction with the environment particularly with respect to natural resource exploitation. Prerequisites: PHYS 160/165 Physical Geology/Laboratory.


PHYS 479. Techniques for Teaching Physics. 3 hours. Techniques, methods, and course content used in teaching physics in the secondary school. Offered by the Department of Physics. To be taken before the professional semester. Prerequisites: Admission to teacher education and PSYCH 357 Educational Psychology.

PHYS 500. Mathematical Physics. 3 hours. Mathematical methods in classical and modern physics. Prerequisites: MATH 150 Calculus I and PHYS 101 College Physics II or PHYS 105 Engineering Physics II. May be taken for honors.

PHYS 502. Computational Physics. 3 hours. Use of computational techniques in solving problems in mechanics, electricity and magnetism, electronic circuits, optics and modern physics. Prerequisites: PHYS 500 Mathematical Physics. May be taken for honors.

PHYS 504. Solid State Electronic Devices. 3 hours. Conduction in metals and semiconductors, the p-n junction, ohmic and rectifying contacts, zener and tunnel diodes, bipolar transistors, multi-junction devices, field effect transistors, introduction to integrated circuits. Prerequisites: MATH 150 Calculus I and PHYS 101 College Physics II or PHYS 105 Engineering Physics II. May be taken for honors.


PHYS 512. Electricity and Magnetism I. 3 hours. Vector calculus, coordinate systems and transformations, electrostatic fields, boundary value problems, magnetostatics, magnetic forces, materials and devices, Maxwell’s Equations. Prerequisite: PHYS 500 Mathematical Physics. May be taken for honors.

PHYS 514. Applied Thermodynamics. 3 hours. Heat, temperature, laws of thermodynamics and their applications. Prerequisite: PHYS 104 Engineering Physics I. May be taken for honors.

PHYS 516. Modern Physics I. 3 hours. Relativity, atomic, nuclear, high energy and solid state physics. Prerequisites: MATH 150 Calculus I and PHYS 101 College Physics II or PHYS 105 Engineering Physics II. May be taken for honors.

PHYS 518. Physical Optics. 3 hours. Huygen’s principle; interference; diffraction; polarization and crystal optics; electromagnetic theory of light. Prerequisites: MATH 253 Calculus III and PHYS 105 Engineering Physics II. May be taken for honors.

PHYS 530. Intermediate Physics Laboratory (____). 3 hours. Experiments in electricity and magnetism; thermodynamics; atomic and nuclear physics; optics. Prerequisite: PHYS 105 Engineering Physics II. May be repeated if subject matter is different each time. May be taken for honors.

PHYS 532. Electronic Circuits I 1.3 hours. A.C., D.C. circuitry, diode and transistor theory, transistor amplifiers, amplifier and feedback circuits, oscillators, digital electronics, microprocessors. Prerequisite: PHYS 105 Engineering Physics II. May be taken for honors.

PHYS 533. Electronic Circuits II. 3 hours. Digital to analog and analog to digital converters, transducers and applications to computer interfacing, feedback and control by computers. Prerequisite: PHYS 532 Electronic Circuits I. May be taken for honors.

PHYS 540. Topics in Physics (____). 1-3 hours. Lecture or seminar in specialized area of physics. Prerequisites: PHYS 500 Mathematical Physics. May be repeated if subject matter is different. May be taken for honors.

PHYS 541. Topics in Astronomy (____). 1-3 hours. Lecture, seminar, or laboratory studies in specialized areas of Astronomy. May be repeated if subject matter is different.

PHYS 542. Topics in Earth Science (____). 1-3 hours. Lecture, seminar, laboratory, and/or field studies in a specialized area of Earth Science. May be repeated if subject matter is different. Prerequisites: PHYS 160/165 Physical Geology/Laboratory.


PHYS 569. Laboratory Assistant Practicum. 2 hours. For students intending to teach physics or general science in secondary schools. Assisting in preparation and instruction in one of several physics or physical science laboratories. A minimum of four hours assisting per week is required. Prerequisite: Students must be enrolled in the teacher education curriculum; permission of instructor.

PHYS 575. Introductory Astrophysics. 3 hours. Celestial mechanics, photometry, stellar and planetary astronomy, radio and space probe astronomy. Prerequisite: PHYS 101 College Physics II or PHYS 105 Engineering Physics II. May be taken for honors.

PHYS 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

PHYS 591. Physics Project. 1-3 hours. Project in classical or modern physics. Prerequisite: Permission of instructor. May be repeated. May be taken for honors.

PHYS 610. Analytical Mechanics II. 3 hours. Lagrangian and Hamiltonian mechanics, rigid body motion, mechanics of continuous media. Prerequisite: PHYS 510 Analytical Mechanics I. May be taken for honors.

PHYS 612. Electricity and Magnetism II. 3 hours. Maxwell’s equations, time-varying electric and magnetic fields, electromagnetic wave propagation, transmission lines, wave guides and antennae. Prerequisite: PHYS 512 Electricity and Magnetism I. May be taken for honors.

PHYS 616. Modern Physics II. 3 hours. Continuation of PHYS 516 Modern Physics I. Applications of relativity and quantum mechanics to atomic, nuclear, high energy, solid state, and astrophysics. Prerequisite: PHYS 516 Modern Physics I. May be taken for honors.

PHYS 691. Senior Research Project. 2 hours. Individual research project. Oral and written presentations by student. Prerequisite: Senior standing.

PHYS 699. Senior Review and Assessment. 1 hour. Capstone course for undergraduate physics majors along with exiting assessment. Prerequisite: Senior standing.

PHYS 702. Advanced Computational Physics. 3 hours. Numerical solution methods of partial differential equations and application of boundary conditions to problems in electricity, magnetism, fluid dynamics, and quantum mechanics. Prerequisites: MATH 553 Differential Equations, PHYS 500 Mathematical Physics, or permission of instructor.

PHYS 714. Statistical Thermodynamics. 3 hours. Distribution functions; statistical methods applied to radiation and matter. Prerequisite: PHYS 516 Modern Physics I or CHEM 593 Physical Chemistry I or permission of instructor.

PHYS 716. Introductory Quantum Mechanics. 3 hours. Atomic spectra, special theory of relativity and the origins of quantum theory. Wave mechanics, the square well, barrier potentials, harmonic oscillator, and hydrogen atom. Prerequisite: PHYS 516 Modern Physics I or CHEM 593 Physical Chemistry I or permission of instructor. May be taken for honors.

PHYS 730. Advanced Physics Laboratory (____). 3 hours. Experiments in Atomic and nuclear physics; x-rays; solid state physics; electromagnetic phenomena. Prerequisite: PHYS 530 Intermediate Physics Laboratory or other junior-senior level laboratory work. May be repeated if subject matter is different each time. May be taken for honors.

PHYS 735. Laboratory Safety and Compliance. 1 hour. Survey of recommended best practices for safe laboratory operation, handling and disposal of hazardous materials, electricity, radiation, pressurized or cryogenic gases, and first aid, including the latest federal, state, city, and campus regulations to prevent accidents or exposures that may cause injury, property damage, or interference with other work. Recommended for Lab Assistants. Prerequisite: PHYS 131 College Physics Laboratory II or PHYS 172 Physical Science Laboratory.

PHYS 740. Advanced Topics in Physics (____). 1-3 hours. Lecture or seminar in specialized areas of physics. May be repeated if subject matter is different each time. May be taken for honors.

PHYS 741. Special Topics (____). 1-3 hours. Selected topics in the physical sciences. Primarily for education majors. May be repeated if subject matter is different.

PHYS 742. Solid State Physics. 3 hours. Theoretical and experimental aspects of solid state physics. Prerequisite: Permission of instructor. May be taken for honors.

PHYS 743. Solid State Electronics. 3 hours. Digital Electronic Signals and Switches, Logic Gates, Boolean Algebra, Flop-Flops and Registers; Semiconductor, Magnetic and Optical Memory, feed-back and control by computers via LabView. Prerequisites: MATH 150 Calculus I and PHYS 105 Engineering Physics II or permission of instructor.

PHYS 760. History and Philosophy of Science. 3 hours. Introduction to modern views about the nature of science with a survey of major changes and contributors to development of epistemology and empirical techniques in the physical and life sciences. Prerequisites: PHYS 100 College Physics I/PHYS 101 College Physics II or PHYS 104 Engineering Physics I/PHYS 105 Engineering Physics II, and PHYS 516 Modern Physics I.

PHYS 775. High-Energy Astrophysics. 3 hours. Investigations of supernovae, neutron stars, gamma-ray bursts, and active galactic nuclei, particularly studying gas dynamics and radiation processes. Prerequisite: PHYS 500 Mathematical Physics.


PHYS 816. Quantum Mechanics. 3 hours. Non-relativistic quantum theory; operator formalism; perturbation and variational methods.

PHYS 830. Graduate Physics Laboratory. 3 hours. Selected experiments in modern physics.

PHYS 832. Experimental Design in the Physical Sciences. 3 hours. Incorporation of parametric, systematic, and statistical error analysis, instrumental uncertainties, and logic into the design and planning of experiments in physics, chemistry, and engineering. Prerequisites: PHYS 516 Modern Physics I and PHYS 530 Intermediate Physics Laboratory.

PHYS 840. Graduate Topics in Physics (____). 3 hours. Lecture or seminar in specialized areas of physics. May be repeated if subject matter is different each time.

PHYS 881. Orientation to College Teaching. 3 hours. Laboratory work in the classroom situation; work with instrumental aids; involvement in curriculum development, test construction, and classroom instruction.

PHYS 882. Guided Inquiry for Science Fairs and Demonstrations. 3 hours. How to guide and encourage secondary school students in research projects in the physical sciences. Emphasizes important distinctions between simply building a technical demonstration and actually following the scientific method. Recommended for secondary school teachers. Prerequisites: PHYS 100 College Physics I/PHYS 101 College Physics II or PHYS 104 Engineering Physics I/PHYS 105 Engineering Physics II, and PHYS 516 Modern Physics I.

PHYS 890. Research and Thesis. 1-6 hours. May be repeated. No more than six hours applies toward the master’s degree, except when additional hours are determined by the Department to be required to complete the thesis and its defense.

PHYS 891. Research Problem. 1-6 hours. May be repeated. No more than six hours applies toward the master’s degree, except when additional hours are determined by the Department to be required to complete the problem and report.

PHYS 893. Research Grant Proposal Writing. 3 hours. Introduction to fundamental techniques for obtaining research funding, including both government and private sources, types of solicitations, rules, strategies, nd proposal formats. Prerequisite: PHYS 516 Modern Physics I.

Political Science

POLIS 101. U.S. Politics. 3 hours. Fundamental study of how the U.S. government is organized and functions, with emphasis on the political processes and citizen participation.
POLS 301. State and Local Government and Politics. 3 hours. A study of the structure and functions of state, county, and municipal government in the United States. Prerequisite: POLS 101 U.S. Politics or permission of instructor. Students who have taken POLS 102 are not eligible to take this class.

POLS 320. Introduction to Political Science. 3 hours. An introduction to the world and science of politics. Examines political topics related to the functioning of political systems and stressing the interrelatedness of those systems. Required of all political science and social science pre-law majors.

POLS 324. Introduction to Comparative Politics. 3 hours. Survey of basic principles and practices of liberal democratic, authoritarian and totalitarian governments, with a review of politics in selected countries of various regions.

POLS 412. Law in Film and Literature. 3 hours. Philosophical inquiry into the nature of law and legal phenomena as elucidated by film and literature. Focus on constitutive legal theories, including natural law, legal realism, Marxist legal theory, and poststructuralism.

POLS 450. Political Philosophy. 3 hours. An examination of key concepts of political philosophy, such as justice, right, and nature, from classical, medieval, and modern perspectives. May be taken for honors.

POLS 492. Directed Readings in Political Science. 1-3 hours. Individual study and research in selected areas of political science. May be repeated for a maximum of 6 hours. Prerequisite: Permission of instructor.

POLS 512. Environmental Politics. 3 hours. Analysis of historical and contemporary concerns and values relating to environmental protection and natural resource management and their manifestation into political movements and policy. Prerequisites: POLS 101 U.S. Politics or POLS 324 Introduction to Comparative Politics. May be taken for honors.

POLS 516. Political Parties and Elections. 3 hours. Examination of political parties as organizations, their role within government, and the effectiveness of parties and elections as democratic links between citizens and those who govern. Prerequisite: POLS 101 U.S. Politics. May be taken for honors.

POLS 517. U.S. Congress. 3 hours. Comprehensive study of the U.S. Congress, including legislator selection, legislative organization and procedure, and other participants in the legislative process. Prerequisite: POLS 101 U.S. Politics or POLS 102 State and Local Government and Politics. May be taken for honors.

POLS 524. European Politics. 3 hours. Investigation of the institutions, politics, and policies of contemporary Europe. Includes analysis of the European Union (EU) and country studies of Western, Central and Eastern Europe. Prerequisite: POLS 324 Introduction to Comparative Politics or consent of instructor. May be taken for honors.

POLS 525. Politics and War in the Middle East. 3 hours. Comparative politics of the Middle East and nearby Muslim countries. Focus on war, insurgency, coups, and their regional and global implications. May be taken for honors.

POLS 526. Latin American Politics. 3 hours. Survey of institutions, problems, parties and politics of Latin America, with emphasis on selected countries. Prerequisite: POLS 324 Introduction to Comparative Politics or consent of instructor. May be taken for honors.

POLS 530. International Relations. 3 hours. Close attention to current affairs, international law, the principles and practices of diplomacy, international organizations, the efforts to prevent war and maintain peace. May be taken for honors.

POLS 562. Law and Politics. 3 hours. Analysis of the judicative roles performed by federal and state judiciaries in the American political system. Prerequisite: POLS 101 U.S. Politics or POLS 320 Introduction to Political Science. May be taken for honors.

POLS 571. Political Studies-Selected Topics (____). 1-3 hours. Intensive examination and analysis of selected topics in political science. May be repeated when subject is different. May be taken for honors.

POLS 578. Democratic Theory and Public Opinion. 3 hours. Interpretations of democracy, the degree to which the United States is democratic, and the formation of public opinion and its role in United States politics. May be taken for honors.

POLS 587. U.S. Foreign Policy. 3 hours. The study of the foreign policy of the United States with emphasis on current trends and the foreign policy decision-making process. Prerequisite: POLS 101 U.S. Politics or permission of instructor. May be taken for honors.

POLS 604. The American Presidency. 3 hours. An analysis of the office of the President of the United States and its relationship with other governmental institutions in the constitutional and political system. Prerequisite: POLS 101 U.S. Politics or equivalent. May be taken for honors.

POLS 609. Administrative Law. 3 hours. A comprehensive study of public law standards that shape decision-making in U.S. regulatory agencies. Focus on rule-making, enforcement, and adjudication. Prerequisites: POLS 101 U.S. Politics or POLS 324 Introduction to Comparative Politics or permission of instructor. May be taken for honors.

POLS 616. Interest Groups and Social Movements. 3 hours. Examination of various groups attempting to influence governmental policy, their form, function, and method. Prerequisite: POLS 101 U.S. Politics or POLS 320 Introduction to Political Science. May be taken for honors.

POLS 630. International Political Economy. 3 hours. Examination of the interdependent relationships between government, politics, and economics, and among the countries and economies of the world. Prerequisite: ECON 201 Introduction to Macroeconomics or permission of instructor. May be taken for honors.

POLS 640. African Politics. 3 hours. Modern political systems of Sub-Saharan Africa. Particular attention to issues of ethnicity, the role of government in development, problems associated with government failure in the region, the role of the international community in Africa. Prerequisite: SOSCI 324 or permission of instructor.

POLS 660. Political Science Internship (____). 1-3 hours. Supervised work experience in the local courts, state and national legislatures, approved campaign experiences and political party activities, and public administrative service agencies. May be repeated once. Permission of instructor. Offered only on a pass-fail basis.

POLS 661. Constitutional Law I. 3 hours. The role of the Supreme Court in the development of constitutional principles of the separation of powers and federalism. Prerequisite: POLS 101 U.S. Politics or equivalent. May be taken for honors.

POLS 662. Constitutional Law II. 3 hours. The role of the Supreme Court in the development of civil liberties and related matters. Prerequisite: POLS 101 U.S. Politics or equivalent. May be taken for honors.

POLS 680. War: The Politics of Violence. 3 hours. The phenomena of war, its history, and utility in the modern age. Prerequisite: POLS 101 U.S. Politics or permission of instructor.

POLS 686. Senior Seminar in Political Science. 3 hours. A "capstone" course to enhance the ability of graduating seniors to apply the basic concepts of political sciences and its major subfields. The seminar involves the analysis of a variety of contemporary issues and stresses the clear communication of such to both students and nonstudents of the discipline. Required of all majors in political science. Prerequisite: 24 hours of political science, including required courses in major, or permission of instructor. May be taken for honors.

Psychology

PSYCH 155. General Psychology. 3 hours. Introduction to the science of psychology with an emphasis on the principles which lead to a greater understanding of behavior. Selected laboratory experiences included.

PSYCH 165. Psychology as a Profession I. 2 hours. An orientation to the field of human services, focusing on professional psychology and counseling, including career options and directions, training and credentialing, and including a general orientation to ethics in the field.

PSYCH 230. Career Exploration. 1 hour. Designed to aid students in exploring sources of career information and the world or work. Decision-making skills and methodologies, sources of occupational-educational information, and the various sources for gaining career information and self-understanding will be explored. Includes experience in using career information systems.

PSYCH 263. Developmental Psychology. 3 hours. Principles of growth and development in the physical, cognitive, social, emotional and personality spheres. Application of current scientific data in the real world of infants, children, adolescents, and adults will be emphasized. Prerequisite: PSYCH 155 General Psychology or permission of instructor.

PSYCH 275. Psychology of Adjustment. 3 hours. A study of factors designed to promote personality characteristics that reflect mental health. Emphasis will be centered on the development of positive, affective personality rather than on the correction of negative, undesirable characteristics.

PSYCH 357. Educational Psychology. 3 hours. A broad based course designed to relate psychological theory to educational practice. Coverage includes course planning and objectives, learning and information processing, teaching strategies, motivation, behavior management, multicultural education, and measurement and evaluation. Prerequisite: For Teacher Education majors only: Junior standing, grade of "C" or better in PSYCH 155 General Psychology, PSYCH 263 Developmental Psychology and EDUC 261 Explorations in Education, minimum 2.5000 cumulative GPA. Elementary only: Have taken the PPST or C-Base, or score of 24 on the ACT or 1040 SAT. Secondary only: Admission to Teacher Education or permission of the Teacher Education office and instructor.

PSYCH 360. Psychology of Aging. 3 hours. The course examines the psychological aspects of human development and behavior from adulthood to older adulthood, which includes age-related changes in socialization, personality, intelligence, sensation, perception, learning, memory, interpersonal relationships, living arrangements, and the implication of these changes in the life of older adults.
**PSYCH 362. Death and Dying.** 3 hours. This course will explore scientific, theoretical, and applied issues of death and dying from a psychological perspective. Relevant psychological concepts will also be integrated with other approaches to contemplating death and dying, including personal experience, family and loved ones, health care providers, medical systems, and the broader culture.

**PSYCH 389. Research Methods in Psychology I.** 3 hours. Study of elementary descriptive and inferential statistics employed in behavioral sciences research, including an introduction to research methodology. Computer-based laboratory experiences provided. Prerequisite: PSYCH 155 General Psychology and MATH 113 College Algebra or MATH 110 College Algebra with Review or MATH 126 Pre-Calculus or permission of instructor.

**PSYCH 392. Research Methods in Psychology II.** 3 hours. Study of research designs and their applications, specific to broad methodological issues, research ethics, and the interpretation of research findings. Prerequisite: PSYCH 389 Research Methods in Psychology I. May be taken for honors.

**PSYCH 406. Independent Study:** (1–3). 1-3 hours. Individual study, either research or readings oriented, under the direct supervision of an appropriate member of the faculty. May be repeated for a maximum of 6 hours. Prerequisite: Permission of instructor.

**PSYCH 440. Topics in Psychology:** (1–3). 1/2-3 hours. Specific area in psychology will be studied intensively through readings, reports, and discussions. A specific subtitle such as psycholinguistics, biofeedback, or leadership will be listed in the schedule of classes. May be taken on a Pass/Fail basis. May be repeated if subject matter is different. A maximum of 4 hours can be taken under the subtitle Organizational Leadership. No more than 6 hours may be applied to a psychology major and no more than 3 hours may be applied to a psychology minor without special permission from the chairperson of the Department of Psychology and Counseling. May be taken for honors.

**PSYCH 456. Introduction to Social Psychology.** 3 hours. An introduction to the psychology of social behavior. Systematic consideration of such concepts as social influence, conformity and deviation, social attitudes, prejudice, socialization and personality, and leadership. May be taken for honors.

**PSYCH 463. Cognitive Processes.** 3 hours. Theory and research in human cognitive processes and cognitive bases of behavior such as information processing, memory, concept information, problem solving, perception, and language. Prerequisite: PSYCH 155 General Psychology. May be taken for honors.

**PSYCH 571. Abnormal Psychology.** 3 hours. Introduction to the study of abnormal behavior. Careful consideration will be given to the history of the concept of abnormality. Symptomatology of abnormal behavior will be studied as well as functional disorders including personality disorder. Prerequisite: PSYCH 155 General Psychology or permission of instructor. May be taken for honors.

**PSYCH 575. Industrial and Organizational Psychology.** 3 hours. Application of principles, methods and findings from psychological research to pertinent industrial and organizational problems. Emphasis is given to theories of organizational development, organizational structures, contingencies of supervision and leadership, personnel psychology, theories of motivation, training and development, human engineering, and consumer psychology. Prerequisite: Junior standing or permission of instructor. May be taken for honors.

**PSYCH 592. Applied Research Methods.** 1-9 hours. Applications of research design and analysis through active participation in a programmatic research project in the department. Includes data collection, data analysis, and written summaries of research results. Prerequisite: Permission of instructor. May be repeated for a maximum of 9 hours. No more than 6 hours may be applied to a psychology major, and no more than 3 hours may be applied to the psychology minor. May be taken for honors.

**PSYCH 616. Introduction to Group Processes.** 3 hours. Principles of group process such as leadership, membership, group development, and facilitative/therapeutic factors will be included: Issues in group creation, maintenance, termination, and ethical issues, types of group work and appropriate application, are covered. Experiential activities included to emphasize self-awareness and interpersonal and team-building skills. Prerequisite: Six hours of psychology or permission of instructor.

**PSYCH 665. Psychology as a Profession II.** 1 hours. A course encompassing skill and knowledge application and methods to pursue jobs or graduate school admission. Application, letter of intent, and resume preparation will be included. Prerequisites: PSYCH 165 Psychology as a Profession I, 75 hours of coursework or permission of instructor.

**PSYCH 675. Human Factors Psychology.** 3 hours. Focuses on humans and their interaction with products, equipment, facilities, procedures, and environments used in work and everyday living. Includes the systematic application of relevant information about human capabilities, limitations, characteristics, behavior, and motivation to the study of design and ergonomics. Prerequisites: 45 credit hours or permission of instructor.

**PSYCH 680. Human Relations in the Workplace.** 3 hours. Dynamics of human relations in industrial settings. Especially recommended for technology students. May be taken for honors.

**PSYCH 685. Psychology of Personality.** 3 hours. A study of the personality theories and the use of personality variables as an affective basis of behavior. Determination of and techniques of measuring personality variables. Prerequisite: PSYCH 155 General Psychology, PSYCH 389 Research Methods in Psychology I, Junior-level status, or permission of instructor. May be taken for honors.

**PSYCH 690. Assistantship in Psychology.** 1-3 hours. Assistants will be exposed to a wide variety of educational and experimental settings within the Department of Psychology and Counseling and will work directly with the professional teaching staff to gain a basic mastery of the educational and/or experimental side of the department in a practical way. Prerequisite: Junior level standing and permission of instructor. May be repeated. May be taken for honors.

**PSYCH 698. Sensation and Perception.** 3 hours. This course surveys contemporary research and theory on sensation and perception. Topics surveyed include sensory physiology, psychophysics, visual attention and search, visual and auditory cognition, and central nervous system pathways involved in the processing of color, form, motion, depth, touch, temperature, taste, smell, and balance. Special attention will be given to research on vision as it highlights approaches scientists have taken in their efforts to understand the functioning of the brain. Prerequisites: PSYCH 155 General Psychology and at least junior standing, or permission of instructor. May be taken for honors.

**PSYCH 699. Senior Thesis.** 1-3 hours. Senior level honors research project or paper. May be repeated for a maximum of 3 hours. Prerequisite: 30 hours of undergraduate psychology and permission of instructor. May be taken for honors.

**PSYCH 701. Ethics in Human Services.** 3 hours. Emphasizes knowledge of client rights, confidentiality and release of information regulations, professional standards, code of ethics, and common violations in the human services.

**PSYCH 703. Mental Health Case Management.** 3 hours. This is a pre-fieldwork course emphasizing practical techniques to facilitate client engagement and relationship with case managers and other support staff. Simulated experience will be provided through the use of role-play. This course also provides specific skills and knowledge in: crisis management; case management with alcohol and drug-abusing consumers vs. with clients with mental disorders; dealing with clients who are dually diagnosed; and case management issues for differential diagnoses and treatment/intervention plans.

**PSYCH 711. Addictions I.** 3 hours. This course provides knowledge of behavior patterns, progressive stages, historic and generational bases of alcohol/drug dependency, and other types of Addictions. The course will also cover issues including addiction substitution, continuum of care, progress in recovery, and relapse dynamics.

**PSYCH 720. Multicultural Issues in Psychology and Counseling.** 3 hours. Designed to assist human service workers in understanding their own ethnicity, increasing their sensitivity to life experiences of minority group members, and promoting establishment of successful professional relationships.

**PSYCH 722. Fundamentals of Tests and Measurement.** 3 hours. An overview of contemporary basic psychometric theory. Focused application of these principles in psychology and counseling and other related domains of society. Prerequisite: 9 hours of psychology or permission of instructor. (PSYCH 389 Research Methods in Psychology I or its equivalent is recommended.)

**PSYCH 724. Physiological Psychology.** 3 hours. Relationships between various body systems and behavior with special emphasis on latest relevant empirical data. Laboratory experiences will be included. Prerequisites: PSYCH 155 General Psychology and at least junior standing, or permission of instructor. May be taken for honors.

**PSYCH 727. Pharmacology and Substance Abuse.** 3 hours. Course provides knowledge of states of intoxication and withdrawal, long term effects of substance abuse, effects of psychoactive drugs, mixing drugs, and cross-addictions.

**PSYCH 735. Psychology of Mental Health.** 3 hours. Study of the dynamics of human adjustment in terms of psychological and social variables. Prerequisite: 6 hours of psychology or permission of instructor.

**PSYCH 736. Psychology of Family Development.** 3 hours. A study of the dynamics of family development with emphasis on its relationship to family therapy. May be taken for honors.

**PSYCH 740. Topics in Psychology:** (1–3). 1/2-3 hours. Study of specific area in psychology or counseling through readings, reports and discussions under such listed subjects as psycholinguistics, philosophical psychology, or therapies. May be taken on a Pass/Fail basis. May be repeated if subject matter is different. No more than 6 hours may be applied to a psychology major and no more than 3 hours may be applied to a psychology minor without special permission from the chairperson of the Department of Psychology and Counseling.

**PSYCH 741. Behavior Modification.** 3 hours. A systematic review of the major theories of behavior modification with emphasis on the applications of basic principles of behavior modification and learning to home, school, and other learning situations. Prerequisite: PSYCH 394 Principles of Learning or equivalent course. May be taken for honors.
PSYCH 745. Introduction to Counseling and Psychotherapy. 3 hours. Development of concepts underlying school and agency counseling programs. Overview of counseling techniques and guidance services. Prerequisite: 9 hours of education and/or psychology or permission of instructor.

PSYCH 748. Career Development. 2 hours. Study of the concept of career development and of sources of information related to the world of work. Prerequisite: 9 hours of education and/or psychology.

PSYCH 749. Crisis Management and Treatment. 1 hour. This course will provide crisis management, intervention and suicide prevention models, including the use of psychological aid strategies. Completion of this course will qualify students to become Red Cross volunteers. Those students who become licensed in an area of mental health will also qualify to become Red Cross mental health volunteers.

PSYCH 755. Introduction to School Psychology. 1 hour. This is a survey course examining the role of school psychologists and the functions they serve. The course is designed to introduce new and prospective students into the field of school psychology and differentiate it from that of related professions. The nature and scope of graduate training in school psychology is reviewed along with projections of future opportunities. Prerequisite: Junior standing or permission of the instructor.

PSYCH 756. Social Psychology. 3 hours. Designed to provide a thorough background in social psychology and to motivate a continuing exploration of theoretical problems and issues in the field. Combines examination of historical development of theory and method in social psychology with analyses of theoretical, methodological approaches to a variety of contemporary topics. Prerequisite: PSYCH 392 Research Methods in Psychology II or equivalent course. May be taken for honors.

PSYCH 761. History and Systems of Psychology. 3 hours. Brief summary of the philosophical and physiological backgrounds of modern psychology. The contributions of structuralism, functionalism, behaviorism, Gestalt psychology, dynamic psychology and humanism to the development of scientific psychology. Prerequisite: 9 hours of psychology. May be taken for honors.

PSYCH 771. Psychology and the Law. 3 hours. Applications of psychological processes and concepts to the American legal system. Among the topics covered are the socialization of legal attitudes, opinions about the purposes of the criminal justice system and persons, the concept of "dangerousness," the nature of jury decision-making, and the rights of prisoners, patients, and children. May be taken for honors.

PSYCH 773. Criminal Psychopathology. 3 hours. This course is intended to provide a survey of some of the main psychological theories of criminal behavior. It will include an introduction to general theoretical approaches, examine mental disorders in relationship to criminal behavior, as well as explore some of the psychological characteristics associated with specific types of criminal behavior. May be taken for honors.

PSYCH 774. Family and Addictions. 3 hours. An overview of the impact of substance abuse on the family, along with knowledge of assessment tools and intervention strategies appropriate for use with families affected by substance abuse. Prerequisite: PSYCH 711 Addictions I.

PSYCH 775. Individual Counseling in Addictions. 3 hours. Provide knowledge and skills in basic communication and ability to establish a counseling relationship, overview and evaluation of current theories of individual counseling in substance abuse; examination of the role of the counselor; crisis intervention theory and practice. Prerequisite: PSYCH 711 Addictions I and acceptance into Substance Abuse Services program or permission of instructor.

PSYCH 776. Addiction Services Coordination. 3 hours. Provides knowledge in screening and assessment in substance abuse; crisis management; case management with substance abusing clients vs. clients with mental disorders; treatment planning and services in substance abuse; and client record management. Prerequisites: PSYCH 711 Addictions I, PSYCH 775 Individual Counseling in Addictions, and acceptance into Substance Abuse Services program, or permission of instructor.

PSYCH 777. Fieldwork in Psychology for Substance Abuse Services. 3 hours. Supervised field placement for psychology majors in the substance abuse services emphasis. Prerequisites: PSYCH 711 Addictions I, PSYCH 775 Individual Counseling in Addictions, PSYCH 776 Addictions Services Coordination, PSYCH 616 Introduction to Group Processes, PSYCH 701 Ethics in Human Services, acceptance into Substance Abuse Services program, and permission of instructor. Formal application must be made the semester before enrollment in PSYCH 777. May be repeated.

PSYCH 778. Fieldwork in Psychology. 1-3 hours. Supervised field placement for psychology majors in agencies and institutions in this region. Prerequisite: 30 hours of undergraduate psychology and permission of instructor. May be repeated. Formal application must be made the semester before enrollment in PSYCH 778.

PSYCH 779. Fieldwork in Psychology: Human Resource Development Practicum. 1-3 hours. This course provides supervised field placement for psychology majors in the Human Resource Development concentration. Prerequisites: 21 hours of coursework in the undergraduate psychology major plus 15 hours of coursework in the HRD emphasis, a 3.00 GPA, PSYCH 575 Industrial and Organizational Psychology, HRD 596 Introduction to Human Resource Development, and permission of instructor. Formal application must be made the semester before enrollment in PSYCH 779.

PSYCH 781. Psychology of Exceptional Children. 3 hours. Psychology of exceptional children with special emphasis on development, emotional, and social characteristics.

PSYCH 783. Ethical and Legal Issues in School Psychology and Related Fields. 3 hours. The course features two areas of primary focus: 1) Content and guidelines for practicing as a school psychologist within the parameters of the National Association of School Psychologists' Code of Ethics and 2) Current legal trends and litigation findings which have both direct and indirect impact on decision-making in the practice of school psychology and its related fields, e.g. special education and others. Student/parent procedural safeguards including due process procedures as outlined in federal and state regulations are reviewed. The course includes numerous case study opportunities for hands on practice. Prerequisite: Nine hours of psychology or permission of instructor.

PSYCH 801. Ethical Issues in Clinical Psychology. 2 hours. A review of ethical guidelines, issues and dilemmas in the provision of psychological services. This course is required of all graduate psychology majors with an emphasis in clinical psychology. Prerequisite: Admission to a graduate program in psychology or counseling.

PSYCH 802. Pre-Practicum in Counseling. 3 hours. Supervised observation and discussion of counseling in Pittsburg State campus clinical settings, secondary schools, and/or agencies. Prerequisites: Permission of instructor. Formal application to PSYCH 822 Practicum in Counseling must be made and tentatively approved the semester before enrollment in PSYCH 802 Pre-Practicum in Counseling.

PSYCH 803. Intellectual Assessment. 3 hours. Extensive supervised practice in administration, scoring, and interpretation of major intelligence tests. Analysis of test data and psychological report writing are also stressed. Prerequisite: PSYCH 722 Fundamentals of Tests and Measurement, admission to a graduate practitioner degree program in psychology or counseling, and permission of instructor or permission of department chairperson. This course must be followed by enrollment in an appropriate supervised field experience (practicum/internship). Lab fee required.

PSYCH 805. Psychoeducational Assessment. 3 hours. Examination of various individual psychological tests with closely supervised practice in administration, interpretation, supervision and use of test results. Particular emphasis will be given to those instruments which are designed to measure the ability of individuals with speech, hearing and visual defects. Prerequisite: PSYCH 803 Intellectual Assessment or permission of instructor.

PSYCH 806. Special Investigation (____). 1-3 hours. Independent study in psychology or counseling particularly relevant to the educational program of the individual student under the direct supervision of an appropriate staff member. May be repeated for a maximum of 6 hours. Prerequisite: Permission of instructor.

PSYCH 808. Child Personality Assessment. 3 hours. Foundations of child psychopathology as well as administration, scoring, and interpretation of personality tests for children. Assessment measures will include projective, self-report and rating scale tests appropriate for children. Prerequisites: PSYCH 722 Fundamentals of Tests and Measurement, PSYCH 803 Intellectual Assessment, admission to a graduate practitioner program in psychology or counseling, and permission of instructor. Lab fee required.

PSYCH 809. Personality Assessment. 3 hours. Training in the administration and interpretation of psychological tests designed to assess personality functioning including both projective and non-projective assessment measures. (As part of the training experience, students will be expected to take a number of personality tests, and the results of these tests will be individually reviewed with the student by the instructor or other licensed psychologist.) Prerequisites: PSYCH 801 Ethical Issues in Clinical Psychology, PSYCH 803 Intellectual Assessment, and PSYCH 811 Psychopathology and Diagnosis of Mental Disorders, admission to a graduate practitioner degree program in psychology or counseling and permission of instructor. Lab fee required.

PSYCH 810. Advanced Educational Psychology. 3 hours. An applied study of behavioral and humanistic learning theories, classroom motivation, discipline, measurement, evaluation and testing.

PSYCH 811. Psychopathology and Diagnosis of Mental Disorders. 3 hours. Study of the Diagnostic and Statistical Manual of the American Psychiatric Association, emphasizing the differentiation and classification of mental disorders. Prerequisite: Admission to a graduate program in psychology or counseling, or permission of instructor.

PSYCH 814. Program Planning and Management in School Counseling. 2 hours. Instruction in planning and managing a comprehensive K-12 developmental school counseling program (including advisory committees, needs assessment, goals/objectives/outcomes, and program evaluation methods). Techniques, procedures, and materials used to meet the needs of individuals, classroom groups, small groups, and the school community will be addressed. Prerequisite: PSYCH 745 Introduction to Counseling and Psychotherapy or permission of instructor.

PSYCH 816. Group Dynamics. 3 hours. A study of principles underlying the process of group action and interaction in social situations with application to situations of leadership and supervisory relationships. Emphasizes application of group dynamics principles in counseling, personal growth, and other psychological groups. Experiential activities are included. Not open for credit for students who have taken PSYCH 616 Introduction to Group Processes. Prerequisite: 6 hours of psychology or permission of instructor.
PSYCH 817. Theories and Techniques of Family Counseling and Therapy. 3 hours. Study of the theories and of techniques of counseling and psychotherapy with family relationships. Prerequisite: Admission to a graduate practitioner counseling or psychology degree program or permission of instructor.

PSYCH 818. Theories of Counseling and Psychotherapy. 3 hours. Theories, principles and procedures of counseling in schools and agencies. Prerequisite: PSYCH 745 Introduction to Counseling and Psychotherapy or PSYCH 685 Psychology of Personality or permission of instructor.

PSYCH 819. Techniques of Counseling and Psychotherapy. 3 hours. An experientially-based pre-practicum course emphasizing counseling and psychotherapeutic techniques and behavior. Emphasis will be placed upon the identification and acquisition of broad communication and relationship-building skills, specific counseling techniques, a counseling response repertoire, and an understanding of the interaction between theory and technique as it applies to actual practice. Simulated supervised counseling experience will be provided through the use of micro-counseling and role-playing; the course will provide the opportunity to practice actual counseling techniques and interview behavior prior to the practicum. Prerequisites: PSYCH 745 Introduction to Counseling and Psychotherapy and PSYCH 818 Theories of Counseling and Psychotherapy, admission to a graduate practitioner degree program in psychology or counseling and permission of instructor.

PSYCH 822. Practicum in Counseling (_____). 3 hours. Supervised practice and critique of counseling in secondary schools and/or agencies. Prerequisite: Permission of instructor. Formal application must be made the semester before enrollment in PSYCH 822 Practicum in Counseling. May be repeated for a maximum of 6 hours.

PSYCH 823. Psychopharmacology. 3 hours. Three basic segments are included in this course: an overall description of methods of learning, an in-depth analysis of the pharmacological and psychopharmacological events that occur after drug intake; and a specific description of some combination of the fields of learning and psychopharmacology. Not open to students with old PSYCH 787 Psychopharmacology.

PSYCH 826. Contemporary and Ethical Issues in School Counseling. 1 hours. This course will focus on the contemporary issues school counselors are faced with when working with children and youth in schools. An emphasis will also be on the challenges school counselors address in terms of ethical and legal issues. The American School Counselor Association's and American School Counseling Association's Codes will be utilized. Prerequisites: PSYCH 745 Introduction to Counseling and Psychotherapy, PSYCH 814 Program Planning and Management in School counseling, or permission of instructor.

PSYCH 827. Clinical Mental Health Counseling Practice. 2 hours. The study of the foundations, contextual dimensions, and knowledge and skill requirements of community counseling as well as consultation models for application to assist others with their delivery of counseling services to clients. Prerequisite or corequisite: Permission of instructor and PSYCH 822 Practicum in Counseling (Community).

PSYCH 830. Psychology of Learning. 3 hours. Theoretical foundations of learning including conditioning, cognitive, and social approaches. Application of these theories to the basic principles encountered in education and psychology. Prerequisite: 9 hours of psychology or its equivalent.

PSYCH 831. Techniques of Supervision of Counseling and Psychotherapy. 3 hours. Study and supervised practice in supervision of counseling and psychotherapy. Prerequisite or corequisite: Permission of instructor and PSYCH 822 Practicum in Counseling (Community or School), PSYCH 872 Practicum in Psychology, or PSYCH 970 Advanced Practicum in School Psychology, or their equivalent. May be repeated. Maximum of 12 credit hours of PSYCH 831 and PSYCH 931 Advanced Techniques of Supervision of Counseling and Psychotherapy combined hours may count toward a graduate degree.

PSYCH 832. Evidence-Based Interventions: Adults. 3 hours. An overview of evidence-based interventions for some of the major psychological disorders in an adult population. Prerequisites: PSYCH 811 Psychopathology and Diagnosis of Mental Disorders, PSYCH 818 Theories of Counseling and Psychotherapy, PSYCH 819 Techniques of Counseling and Psychotherapy, admission to a graduate practitioner program in psychology or counseling, and permission of instructor.

PSYCH 833. Evidence-Based Interventions: Children. 3 hours. An overview of evidence-based interventions for some of the major psychological disorders encountered in children. Prerequisites: PSYCH 818 Theories of Counseling and Psychotherapy, PSYCH 819 Techniques of Counseling and Psychotherapy, admission to a graduate practitioner program in psychology or counseling, and permission of instructor.

PSYCH 834. Introduction to Human Neuropsychology. 3 hours. Provide an overview of evolution, anatomy, physiology, and pharmacology as related to the field of neuropsychology. Use empirical findings from neuroscience to understand the neurological basis for psychological constructs of memory, language, emotion, spatial reasoning, executive functioning, and attention. Review common symptoms of neurological disorders and appropriate neuropsychological screening methods. Prerequisites: Permission of instructor.

PSYCH 835. Assessment of Early Childhood Disabilities. 1-2 hours. Addresses assessment of the early childhood handicapped child. Intended for those familiar with tests and measurements, and assumes a grasp of developmental theory applied to children. Specifically designed to train graduate level students to competently perform assessment utilizing a normative base approach. Prerequisite: PSYCH 722 Fundamentals of Tests and Measurement.

PSYCH 837. Assessment and Intervention with Early Childhood Disabilities. 3 hours. Addresses assessment and intervention in early childhood handicapped children. Intended for those familiar with tests and measurements, and assumes a grasp of developmental theory applied to children. Common early childhood handicapping conditions along with research on intervention for these conditions is provided. Specifically designed to train graduate level students to competently perform both norm-reference and criterion referenced assessments. Students are required to develop evidence-based interventions for children they have assessed. Prerequisite: PSYCH 722 Fundamentals of Tests and Measurement and permission of instructor.

PSYCH 839. Group Interventions. 3 hours. An overview of group therapy, with focus on practical aspects of managing a group, along with intervention protocols for commonly encountered problems in a mental health setting. Prerequisites: PSYCH 818 Theories of Counseling and Psychotherapy and admission to applied skills graduate degree program (Clinical Psychology, Clinical Mental Health Counseling, School Counseling, School Psychology) required. Prerequisite: PSYCH 818 Theories of Counseling and Psychotherapy and admission to applied skills graduate degree program.

PSYCH 840. Seminar: (____). 1/2-3 hours. A specific area in psychology or counseling will be studied intensively through readings, reports, and discussions. A specific subtitle such as perception, motivation, emotions, psychological statistics will be listed in the schedule of classes. May be taken on Pass/Fail basis. May be repeated if subject matter is different. No more than 6 hours may be applied to a master's degree.

PSYCH 844. Diversity Issues in Counseling. 3 hours. Theories and practice of counseling with diverse populations including cultural, sub-cultural, gender, ethnic, and special needs groups. Special emphasis is given to competencies in multicultural awareness and establishing counseling relationships, communicating, and goal setting with diverse populations.

PSYCH 845. Practice in Family Counseling. 1-3 hours. This course is for the advanced student who wishes to do family therapy in greater depth. Prerequisite: PSYCH 819 Techniques of Counseling and Psychotherapy and permission of instructor. PSYCH 817 Theories of Family Counseling and Therapy strongly recommended. May be repeated.

PSYCH 854. Group Counseling. 3 hours. A study of the nature of group work practice, including the theory, practice, research, ethics, and professional issues related to group procedures. Corequisite or prerequisite: PSYCH 819 Techniques of Counseling and Psychotherapy; Prerequisites: Admission to a practitioner training program in psychology or counseling, PSYCH 816 Group Dynamics, and permission of instructor.

PSYCH 855. Group Counseling Practicum. 1 hours. A supervised group leadership experience. Formal application must be made the semester before enrollment in practicum. Prerequisites: Admission to Practicum in Psychology or Counseling, PSYCH 816 Group Dynamics, PSYCH 819 Techniques of Counseling and Psychotherapy, PSYCH 854 Group Counseling, and permission of instructor. May be repeated for up to six hours.

PSYCH 856. Group Counseling Internship. 1 hours. A supervised group leadership experience. Formal application must be made the semester before enrollment in practicum or internship. Prerequisites: Admission to Practicum in Psychology or Counseling, PSYCH 816 Group Dynamics, PSYCH 819 Techniques of Counseling and Psychotherapy, PSYCH 854 Group Counseling, PSYCH 855 Group Counseling Practicum, and permission of instructor. May be repeated for up to six hours.

PSYCH 859. Advanced Developmental Psychology. 3 hours. A study of various determinants of behavior as they apply to the behavior of people in various life phases from infancy to senescence.

PSYCH 860. Clinical Psychology. 2 hours. Integration of assessment, diagnosis, and treatment issues as they apply to the clinical practice of psychology. Prerequisite: Completion of all other non-fieldwork-based coursework (including PSYCH 809 Personality Assessment and PSYCH 811 Psychopathology and Diagnosis of Mental Disorders) in the clinical psychology option and permission of instructor.

PSYCH 865. Pre-Practicum in Psychology. 3 hours. A combination classroom/field work experience designed to give students an introduction to the practicum experience and experience in psychological report writing, advanced counseling and psychotherapy techniques, and psychodiagnosis. Prerequisite: Permission of instructor. Formal application must be made the semester before enrollment in PSYCH 865 Pre-Practicum in Psychology.

PSYCH 870. Practicum in School Psychology. 1-4 hours. Supervised experience in the educational planning, follow-up, and research with children or youth, individually and in groups in the setting of schools K-12. Admission by application only. Prerequisite: Acceptance in Ed.S. School Psychology Program and permission of instructor. Formal application must be made the semester before enrollment in 870. May be repeated for a total of eight hours.
PSYCH 872. Practicum in Psychology. 1-6 hours. Supervised experience in assessment, diagnosis, remediation and research in a clinic, special institution, or psychological services center. Prerequisite: Permission of instructor and PSYCH 801 Ethical issues in Clinical Psychology. Formal application must be made the semester before enrollment in PSYCH 872 Practicum in Psychology. May be repeated.

PSYCH 881. Orientation to College Teaching. 3 hours. Laboratory work in the classroom situation; work with instructional aids, involvement in curriculum development, test construction, and classroom instruction. Prerequisite: Permission of instructor. May be repeated.

PSYCH 890. Research and Thesis. 3-6 hours. Prerequisite: PSYCH 891 Methods of Research in Psychology and Counseling or its equivalent and permission of instructor. May be repeated for a maximum of 6 hours.

PSYCH 891. Methods of Research in Psychology and Counseling. 3 hours. The major goals of the course are to stimulate interest in and to develop and demonstrate such skills as the planning, proposing, conducting and writing of research in an area of professional interest. Content will include such topics as the exploration and evaluation of research, research design, statistical decision-making, computer applications, the ethical conduct of research and issues in conducting research dealing with psychological variables. Prerequisite: PSYCH 392 Research Methods in Psychology II or permission of instructor.

PSYCH 895. Internship: ______. 3-12 hours. Supervised field experience in counseling, school psychology or clinical psychology. Prerequisite: Permission of instructor. Formal application must be made the semester before enrollment in PSYCH 895. Internship: ______. May be repeated.

PSYCH 901. Contemporary Problems in School Psychology. 3 hours. An examination of the practical and theoretical problems in school psychology.

PSYCH 906. Special Investigation: ______. 1-3 hours. Independent study in counseling or school psychology under the direct supervision of an appropriate staff member. May be repeated for a maximum of 6 hours. Prerequisite: Permission of instructor.

PSYCH 910. Advanced Counseling Theories. 3 hours. Emphasis on the study of primary sources of contemporary theories and dynamics within the counseling relationship. Prerequisite: Completion of a course in counseling theory or permission of instructor.

PSYCH 912. Advanced Counseling Practicum. 1-3 hours. Advanced level of supervised experiences in counseling with specific attention to complex case situations and theoretical orientation. May be repeated for a total of 6 hours. Prerequisite: Permission of instructor. Formal application must be made the semester before enrollment in PSYCH 912.

PSYCH 920. Advanced Consultation. 1-3 hours. An investigation of the theory and practice of consultation. The course will emphasize the indirect function of the counselor or other helping professional in coordinating, teaching, organizing, and supervising others in their direct work with clients, students, children, etc. Supervised consulting experience will be provided. Prerequisite: Permission of instructor.

PSYCH 931. Advanced Techniques of Supervision of Counseling and Psychotherapy, 3 hours. Advanced study and supervised practice of supervision of counseling and psychotherapy. Prerequisite or corequisite: Permission of instructor, PSYCH 831. Techniques of Supervision of Counseling and Psychotherapy; PSYCH 895 Internship in Counseling (Community or School), PSYCH 895 Internship in Clinical Psychology, or PSYCH 995 Internship in School Psychology, or their equivalent. May be repeated. Maximum of 12 credit hours of PSYCH 831 Techniques of Supervision of Counseling and Psychotherapy and PSYCH 931 combined hours may count toward a graduate degree.

PSYCH 940. Seminar: ______. 1-3 hours. A specific area of psychology or counseling will be studied intensively through readings, reports, and discussions. A specific subtitle will be indicated in the schedule of classes. May be taken on Pass/Fail basis. May be repeated if subject matter is different. No more than 6 hours may be applied to a master degree.

PSYCH 945. Advanced Supervised Practice of Marriage and Family Therapy I. 1.3 hours. This is the first course in a four course sequence to provide supervision in marriage and family therapy according to the guidelines of the American Association of Marriage and Family Therapy. Prerequisites: Possession of a graduate degree and/or a professional credential in counseling or psychology, and permission of instructor. Formal application must be made the semester before enrollment in PSYCH 945.

PSYCH 948. Supervision of Marriage and Family Therapy. 3 hours. This is the fourth course in a four course sequence to provide supervision in marriage and family therapy according to the guidelines of the American Association of Marriage and Family Therapy. Prerequisites: Possession of a graduate degree and/or a professional credential in counseling or psychology, and permission of instructor. Formal application must be made the semester before enrollment in PSYCH 948.

PSYCH 970. Advanced Practicum in School Psychology. 1-12 hours. Supervised experience in the assessment, diagnosis, counseling, educational planning, follow-up, and research with children or youth, individually and in groups in the setting of schools K-12 and/or special institutions. Prerequisites: Admission to the Ed.S. program in school psychology and permission of instructor. Formal application must be made the semester before enrollment in PSYCH 970 Advanced Practicum in School Psychology. May be repeated for a total of 12 hours.

PSYCH 990. Special Research Project. 3-6 hours. Independent supervised research, required of all Option I candidates and available to Option II candidates for the Specialist in Education Degree, as well as other advanced students. May be repeated. No more than six hours may be applied to a Specialist in Education Degree. Prerequisite: Permission of the instructor.

PSYCH 995. Internship: ______. 1-12 hours. Supervised field experience in counseling, school psychology or psychology. Prerequisites: PSYCH 822 Practicum in Counseling, PSYCH 872 Practicum in School Psychology (or equivalent). Formal application must be made the semester before enrollment in PSYCH 995 Internship: ______. May be repeated for a total of 12 hours. (No more than 6 hours to be counted on an Specialist in Education degree.)

Master of Science in Reading

READ 720. Content Literacy for Middle and Secondary Teachers. 3 hours. Designed to enhance the methodology skills of teachers at the middle and secondary level in order to foster content reading needs of their students in cross-curriculum disciplines. Will focus on techniques and skills for increasing student comprehension of content texts and in all reading to learn situations. Evaluation of textbooks and assessment of the content reading demands of the middle/secondary classrooms will be explored. Participants will develop classroom-ready materials - to utilize and evaluate. Course will include embedded projects in the field.

READ 834. Advanced Children’s and Young Adult Literature. 3 hours. An intensive study of literature and its utilization with children and young adults in classroom settings. A variety of genres, both traditional and current, will be read and explored with an emphasis placed on instructional uses. (Pre K-12)

READ 845. Approaches to Teaching Writing. 3 hours. Foundations of teaching writing in Pre-K-12 classrooms using both direct instruction and process writing models. Students are expected to practice instructional strategies in classrooms and report on their findings. Prerequisite: Admission to graduate study.

READ 848. Advanced Language Arts. 3 hours. An in-depth study of language acquisition, production, and utilization. The focus of the course will deal specifically with how to integrate the language arts into the total school curriculum. Classroom application of current methodology, materials, and research findings will be emphasized.

READ 869. Literacy Topics and Trends. 3 hours. The purpose of the course is to study topics and trends that directly affect literacy teaching, including foundational topics to the challenges of an educational atmosphere ruled by high-stakes testing. Students will have the opportunity to read and discuss literacy programs, effective literacy strategies, and NCLB.

READ 870. Developmental Reading Instruction. 3 hours. An advanced survey of the fundamental principles and practices of teaching developmental reading in Pre K-12.

READ 871. Diagnosis of Reading Difficulties. 3 hours. An in-depth study of the elements necessary for the diagnosis of reading difficulties in a remedial setting and in the classroom. Each student is responsible for the development of a diagnosis using two school students grades 1-12. Prerequisite or Corequisite: READ 870 Developmental Reading Instruction.

READ 872. Methods and Materials in Remedial Reading. 3 hours. An introduction to remedial reading: principles, methods, strategies, and materials with a contrast/comparison made to developmental and corrective reading. Emphasis will be placed on correct use of specific methods and materials and on proper selection of a method or materials for use with a particular student. Information is supplied through lecture, demonstration, discussion, reading assignments, independent reading-study, and case study analyses (Pre-K-12). Prerequisite or corequisite: READ 871 Diagnosis of Reading Difficulties or instructor permission.

READ 873. Practicum in the Diagnosis and Remediation of Reading Difficulties. 3 hours. A supervised experience in diagnosing and remediating individuals or groups of students requiring corrective or remedial reading instruction. Teachers will work with students at two different grade levels, one elementary and one secondary. Prerequisites or corequisites: READ 871 Diagnosis of Reading Difficulties; READ 872 Methods and Materials in Remedial Reading.

READ 874. Apprenticeship in Reading. 3 hours. The teacher will acquire advanced skills and knowledge about the role of the reading teacher in the school and the community (Pre K-12) through direct experiences in those settings. Prerequisite: READ 870 Developmental Reading Instruction, READ 871 Diagnosis of Reading Difficulties, READ 872 Methods and Materials in Remedial Reading and READ 873 Practicum in the Diagnosis and Remediation of Reading Difficulties. This will be the final course.

Recreation

REC 160. Introduction to Recreation and Leisure. 3 hours. A lecture/experiential course designed to introduce students to the history, philosophy, concepts, trends in recreation leisure and fitness. Students identify and explore their personal leisure ethic. Multicultural, international and influence of social institutions are also discussed.

REC 240. Introduction to Therapeutic Recreation. 3 hours. Theoretical, philosophical and historical foundation of therapeutic recreation and a survey of the major services and settings for the ill and handicapped.
RE 270. Field Study in Recreation Leisure and Fitness. 2 hours. A field course. Students visit a broad range of excellent recreation, leisure, therapeutic recreation and fitness facilities. Discussion with the upper and mid-level managers and administrators. Concerning employment and issues. Prerequisite: REC 160 Introduction to Recreation and Leisure.

RE 275. Recreation Practicum. 2 hours. Practical experiences leading to understanding and appreciation for the work and function of various agencies offering recreation services in the community. Experience working with and/or observing various recreation agencies.

RE 276. International Field Study in Recreation. 1-3 hours. An international experience where students provide recreation programs, teach skills or train others to provide services related to recreation, wellness, physical education or therapeutic recreation. Experiential learning using journaling, discussion and other reflective methods of learning.

RE 280. Recreation Methods and Leadership. 3 hours. An exploration and application of the development and use of play, games, and activities used in the provision of recreation/leisure services. A laboratory fee may be required. Two hours lecture and two hours laboratory. Prerequisites: REC 160 Introduction to Recreation and Leisure and REC 240 Introduction to Therapeutic Recreation or permission of instructor.

REC 311. Recreation Program Design and Leadership. 3 hours. Introduction to leadership principles to the unique problems encountered by physical education and recreation personnel. May be taken for honors.

REC 317. Camping and Outdoor Education. 3 hours. An introduction to the history and philosophy of camping. Training for camp leadership with emphasis on program planning, camping skills, and development of outdoor living skills. May be taken for honors.

REC 320. Management Strategies and Financing in Recreation. 3 hours. Introduction to park and recreation facilities, management, personnel, program financing, design and budget standards within city or therapeutic recreation setting. Prerequisites: REC 160 Introduction to Recreation and Leisure and REC 240 Introduction to Therapeutic Recreation.

REC 419. Survey Research Techniques in Recreation. 3 hours. Methods and techniques in designing and conducting surveys in recreation. Sampling techniques and statistical procedures used to interpret and evaluate the data will be studied. Various ways to present data will also be included. Prerequisites: REC 160 Introduction to Recreation and Leisure and REC 270 Field Study in Recreation Leisure and Fitness, or REC 275 Recreation Practicum.

REC 425. Personal Training and Fitness Managements. 3 hours. Techniques and methods used in client assessment, program design, and program implementation of personal training. Professional responsibility of the fitness manager will also be examined including ethics, laws, regulations, and procedures. Prerequisites: BIDL 257/258 Anatomy and Physiology/Laboratory and HHP 464 Physiology of Exercise. May be taken for honors.

REC 430. Commercial Recreation. 3 hours. Introduction to the aspects of starting a business in recreation. Students will prepare an in-depth business plan for a commercial recreation business of their own choosing.

REC 435. Design and Maintenance of Recreation/Leisure Facilities. 3 hours. Design principles for large park areas, playgrounds, gymnasiums, athletic fields, and other recreation venues. Prerequisites: REC 160 Introduction to Recreation and Leisure, REC 240 Introduction to Therapeutic Recreation and REC 320 Management Strategies and Financing in Recreation. May be taken for honors.

REC 438. Issues in Recreation. 3 hours. Current trends and issues in the administration and management of recreation and leisure services in public, private and commercial settings. Prerequisite: REC 320 Management Strategies and Financing in Recreation.

REC 440. Topics in Health, Physical Education and Recreation (____). 1-3 hours. Directed class or seminar study at the undergraduate level in various areas of health, human performance and recreation. The specific topic or topics will be designated each time the course is offered. May be repeated if subject matter differs. May be offered for pass-fail or graded credit.

REC 441. Adult Health and Development. 3 hours. This course is designed to provide the student with current information about aging as related to health, physical activity, and social interaction. It pairs each student with an individual aged 50 years or older for the purpose of applying gerontological health and well-being through social, physical, and health education activities and learning opportunities.

REC 460. Theory of Therapeutic Recreation Program and Service Development. 3 hours. Focus is on internship preparation, issues and trends in the profession, analyzing personal strengths and setting professional goals, professional involvement and seeking employment after graduation. Prerequisites: REC 160 Introduction to Recreation and Leisure, REC 275 Recreation Practicum, and REC 320 Management Strategies and Financing in Recreation. May be taken for honors.

REC 461. Professional Conference. 1 hour. Students attend a minimum of two days of an approved professional conference related to their emphasis area or the recreation field generally. Prerequisites: REC 160 Introduction to Recreation and Leisure and REC 270 Field Study in Recreation Leisure and Fitness, or REC 275 Recreation Practicum.

REC 462. Pre-Internship Seminar. 1 hour. Focus on internship preparation, resume analysis, interview skills, locating quality internships, setting professional goals, professional involvement, employment strategies specific to recreation field. Prerequisites: REC 160 Introduction to Recreation and Leisure, REC 240 Introduction to Therapeutic Recreation and REC 270 Field Study in Recreation Leisure and Fitness or REC 275 Recreation Practicum.

REC 465. Assessment and Documentation in Therapeutic Recreation. 3 hours. This course will provide the student with the skills necessary to assess the patient/client who has physical, cognitive, psychological, social and/or leisure disabilities and to assess the impact of those limitations as they relate to leisure functioning. It will also provide knowledge of medical terminology and methods in documenting initial progress, treatment and discharge notes. Prerequisites: REC 160 Introduction to Therapeutic Recreation and REC 460 Theory of Therapeutic Recreation Program and Service Development, REC 275 Recreation Practicum, and REC 311 Recreation Program Design and Leadership (may be taken concurrently).

REC 469. Intervention in Therapeutic Recreation. 3 hours. The process of intervention using various strategies for identifying targets of change within disabled populations, direction in which change is desired, and methods of obtaining change through the use of recreational and other related activities will be presented. Prerequisite: REC 240 Introduction to Therapeutic Recreation or concurrent enrollment.

REC 470. Administration of Recreation. 3 hours. Recent trends in organization of recreation at federal, state and local levels. Attention is given to legislative provisions, governmental control, financing, budget, personnel, and administrative practices. Prerequisites: REC 280 Recreation Methods and Leadership and REC 320 Management Strategies and Financing in Recreation. May be taken for honors.

REC 480. Professional Trends and Issues in Therapeutic Recreation Services. 3 hours. The purpose of this course is to explore and examine current trends, issues and professional concerns in therapeutic recreation. Prerequisite: REC 240 Introduction to Therapeutic Recreation and REC 469 Intervention in Therapeutic Recreation.

REC 498. Internship in Recreation. 12 hours. Internship in recreation under the supervision of an agency staff member with at least a Bachelor’s Degree (Certified Therapeutic Recreation Specialist for T.R. students) and approval of the university advisor. May be taken in such areas as public recreation departments, hospitals, advocacy agencies, and industry. Prerequisites: Minimum GPA of 2.5 in all core and option courses must be completed prior to enrollment. Admission by application and instructor permission.

REC 470. Administration of Recreation. 3 hours. Recent trends in organization of recreation at federal, state and local levels. Attention is given to legislative provision, governmental control, financing, budget, personnel, and administrative practices. Prerequisites: REC 280 Recreation Methods and Leadership and REC 320 Management Strategies and Financing in Recreation. If taken at graduate level, additional study is required.

Sociology

SOC 100. Introduction to Sociology. 3 hours. An introduction to the study of human society by using basic sociological concepts.

SOC 200. Introduction to Anthropology. 3 hours. Study of the concepts of human culture, from fossil and prehistoric man to his present position in the animal kingdom. The course emphasizes a study of prehistoric humans and contemporary primitive cultures.

SOC 220. Social Problems. 3 hours. An intensive study of selected major current social problems.

SOC 360. Community Sociology. 3 hours. A study of the forces and agencies which determine the nature of the organization of the community. Investigations into local community problems may be used to implement the understanding of the community. Prerequisite: SOC 100 Introduction to Sociology.

SOC 410. Sociology of Sport. 3 hours. Critical investigation of the origins of sport and the role sport plays in society; links between sport, the economy and media; pros and cons of collegiate and youth sports; Title IX; and screening for performance-enhancing substance use. May be taken for honors. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor.

SOC 440. Personality and Social Structure. 3 hours. Examination of the links between culture, social structure, and personality. Major concerns include the influence upon perception, motivation, cognition, socialization, personality development, attitudes, role behavior, language, communications and collective behavior. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.
SOC 443. Race and Ethnic Relations. 3 hours. Comparative examination of racial and ethnic groups, with special attention given to the concept of race; the nature and causes of racial-ethnic inequalities; prejudice and discrimination, and racially motivated violence. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.

SOC 495. Individual Study in Sociology (1-3). 1-3 hours. Intensive investigation of selected topics in sociology. May be repeated for a maximum of 6 hours. Prerequisite: Permission of instructor.

SOC 504. Special Studies in Sociology (1-3). 3 hours. Intensive examination and analyses of selected topics in sociology. May be repeated when subject matter is different. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor.

SOC 512. Social Stratification. 3 hours. A study of the factors which account for differences in influence, power, and social prestige held by different individuals and groups in the community and the society. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.

SOC 527. Correctional Systems. 3 hours. A critical examination of existing and alternative systems for the control and rehabilitation of persons processed by the juvenile and criminal courts. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.

SOC 534. Political Sociology. 3 hours. Analysis of political institutions and movements by using concepts such as legitimacy, power, authority, elites, oligarchy, and authoritarianism. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.

SOC 536. The Family and Society. 3 hours. The family as a dynamic social institution studied from the viewpoint of the way it affects and is affected by economic, social, and cultural forces in society. May be taken for honors.

SOC 547. Criminology. 3 hours. Analysis of the social phenomenon of crime, examining the definition, causation, incidence, social control and treatment of criminal behavior in human society, with special emphasis on contemporary issues in criminology. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.

SOC 548. Juvenile Delinquency. 3 hours. Examination of current knowledge about causation, prevention and effective treatment of juvenile delinquency. Includes evaluation of contemporary prevention and control systems, including juvenile courts, diversion programs, institutional care and community based treatment methods. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.

SOC 549. Social Deviance. 3 hours. Theoretical and empirical examination of deviance and the consequences for the individual, community and society and agents of social control. Prerequisite: SOC 100 Introduction to Sociology. May be taken for honors.

SOC 569. Society and Sexuality. 3 hours. Intensive examination of human sexual behavior with special attention to its socio-cultural construction. Topics include sexual values, definitions of eroticism, the commercialization of sex, and sexual politics and violence. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor. May be taken for honors.

SOC 584. Medical Sociology. 3 hours. Introduction to medical sociology providing an examination of the social aspects of the medical service delivery systems. The effects of norms, values and roles of medical professionals and their clients on the treatment of problems of mental and physical illness. May be taken for honors.

SOC 663. Women, Men and Society. 3 hours. An intensive examination of gender differences; the meaning of masculinity and femininity; the relationship between men and women; and the nature and causes of gender inequality. May be taken for honors.

SOC 675. Sociological Theory. 3 hours. Major schools of sociological theory and their origins, theorists, and theoretical controversies in Sociology, with attention to problems of theory construction and the relationship between theory and research. Prerequisite: Nine hours of Sociology or permission of instructor. May be taken for honors.

SOC 676. Global Sociology. 3 hours. Comparative analysis of the Global Political Economy and the effects of globalization. Includes economic, political, and cultural analysis of ethnicity and social and economic development. May be taken for honors. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor.

SOC 681. Practicum in Sociology. 1-6 hours. Field experience in the application of the theory and methodology of sociology to specific problem areas specifically designed for those interested in working in corrections, probation and parole, law enforcement, child protection, gerontology and other related areas. Prerequisite: Permission of instructor.

SOC 691. Senior Seminar in Sociology. 3 hours. Research to integrate and assess knowledge gained through the study of sociology. Involves design and execution of a social research project and communicating the process and outcomes to sociologists and others. Prerequisites: Senior standing and completion of SOC 100 Introduction to Sociology, SOC 387 Social Research Design, SOC 675 Sociological Theory. Spring Semester.

SOC 794. Special Topics in Sociology (1-3). 1-3 hours. An intensive examination and analysis of selected sociological topics. May be repeated when subject matter is different. Prerequisite: SOC 100 Introduction to Sociology or permission of instructor.

SOC 895. Readings in Sociology (1-3). 1-3 hours. Intensive individual readings in selected topics in sociology. May be repeated for a maximum of 6 hours.

Social Sciences

SOSCI 387. Social Research Design. 4 hours. Designing and implementing social sciences research, including translation of theory into hypotheses, operationalization of definitions, questionnaire construction, and testing, analysis, and presentation of findings. Prerequisite: SOC 100 Introduction to Sociology. May be taken for honors.

SOSCI 388. Social Research Analysis. 4 hours. Answering social research questions using quantitative and qualitative data. Techniques of data management and analysis using SPSS. Prerequisite: POLS 101, GEOG 101, or GEOG 350 World Regional Geography. For Sociology majors SOC 100 Introduction to Sociology and SOSCI 387 Social Research Design.

Special Education

SPED 350. Methods, Infants/Toddlers with Disabilities. 2 hours. The course provides knowledge and skills relating to the methods, materials, equipment, and techniques needed to design an individualized program for teaching infants and toddlers with disabilities. Appropriate delivery systems, assessment, curriculum, and intervention strategies in natural environments will be considered. Prerequisites: EDUC 261 Explorations in Education and completion of 45 credit hours and a 2.50 GPA.

SPED 351. Field Experience: Infants and Toddlers with Disabilities. 1 hours. Provides field experience in early childhood special education with children from birth to age three. For Family and Consumer Science majors with minor in special education only. Corequisite: SPED 350 Methods: Infants and Toddlers with Disabilities.

SPED 401. Topics in Special Education (1-3). 1-3 hours. Individual study (research, project, or field-based oriented) under the direct supervision of a faculty member. Proposal must be submitted within 3 weeks after the beginning of the semester. May be repeated using different topics.

SPED 450. Methods, Preschoolers with Disabilities. 2 hours. The course provides knowledge and skills relating to the methods, materials, equipment, and techniques needed to design an individualized program for teaching preschool (aged 3-5) with disabilities in inclusive settings. Appropriate delivery systems, curriculum, and intervention strategies will be considered. Prerequisites: EDUC 261 Explorations in Education and completion of 45 credit hours and a 2.50 GPA.


SPED 510. Overview of Special Education. 3 hours. An introduction to the field of special education, types of children served, typical local and state programs that assist in the education of the atypical child. Prerequisite: Completion of 60 credit hours and a 2.50 GPA. Prerequisites for Early Childhood/Late Childhood K-6: EDUC 261 Explorations in Education and ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPST).

SPED 511. Overview of Special Education (Birth thru 6th Grade). 3 hours. An introduction to the field of special education, types of children served, typical local and state programs that provide intervention for young children with disabilities from birth through sixth grade. Prerequisites: Completion of 60 credit hours and a 2.50 GPA. Prerequisites for Early Childhood/Late Childhood K-6: EDUC 261 Explorations in Education and ACT score of 24 or higher or passing score on a Basic Skills Test (C-Base or PPST).

SPED 512. Characteristics of Students in Inclusive Settings. 3 hours. An introduction to inclusive educational settings, designed to provide an investigation of the characteristics of students with learning challenges in the areas of emotional disturbance, learning disabilities, intellectual disabilities, language disabilities and autism. The etiologies of these disabilities, the learning and behavioral characteristics of students, and relevant learning theory will be addressed. This course supports the development of: independent thinking, effective communication, making relevant judgments, professional collaboration, effective participation in the educational system, discrimination of values in the educational arena and professional ethics.

SPED 513. Instructional Approaches for the Inclusive Classroom. 3 hours. Required for the undergraduate education major seeking an Inclusive Education minor. Course content focuses on methods for effectively teaching heterogeneously grouped students in K-12 general education settings. The course addresses evidenced-based methods for designing, delivering, and adapting instruction for students across a broad range of abilities. Fundamental aspects of literacy learning, including explicit instructional strategies relevant to specific content areas, are a major focus of the course.
SPED 514. Professional Collaboration in Inclusive Settings. 3 hours. Designed to
develop the knowledge, skills and abilities of pre-service teachers to collaborate with professionals, implement inclusive practices and instruct students with diverse learning
needs. Course content includes theory and research related to inclusion, professional collaboration, Individuals with Disability Education Act (IDEA), implementation of instructional strategies, multi-tiered system of support, and a 30 hour clinical experience.

SPED 515. Positive Behavior Support in Inclusive Settings. 3 hours. Designed to prepare pre-service teachers to effectively instruct and support students who display behavioral and emotional needs. Course content includes characteristics of students with challenging behaviors, theory and research related to various behaviors, an overview of positive behavior support programs, multi-tiered system of support for promoting social competence and inclusive strategies and interventions.

SPED 550. Methods, Primary Children with Disabilities. 2 hours. The course provides knowledge and skills relating to the methods, materials, equipment, and techniques needed to design an individualized program for teaching students grades K-3 with disabilities. Appropriate delivery systems in the elementary school, curriculum, and intervention strategies will be considered. Prerequisite: Admission to Teacher Education.

SPED 560. Assessment of Young Children. 3 hours. The course provides knowledge and skills relating to the assessment of development and achievement in children birth through third grade in general education and special education programs. Topics will include formal and informal assessment, collaborative decision-making, involving the family in the assessment process, and linking intervention to assessment results. Prerequisites: EDUC 261 Explorations in Education and completion of 45 credit hours and a 2.50 GPA.

SPED 738. Characteristics of Students with Adaptive Learning Needs. 3 hours. Designed to provide an investigation of the characteristics of students with adaptive learning needs in the areas of emotional/behavioral disorders, learning disabilities, mental retardation, and physical or other health disabilities. The etiologies of these disabilities, the learning and behavioral characteristics of these students, and relevant learning theory will be addressed. The course will focus on the learning and behavioral needs of these students (including the unique needs of these students from various diverse groups.) This course supports the development of: independent thinking, effective communication, making relevant judgment, professional collaboration, effective participation in the educational system, discrimination of values in the educational arena, and professional ethics.

SPED 744. Special Education Technology. 3 hours. Explorations and applications in technology for students with special needs. Course content includes topics such as evaluation of students, care and maintenance of augmentative/assistive devices, assistive instructional software, and application of skills in program development and review.

SPED 745. Behavior Analysis and Management. 3 hours. Principles and application of classroom management techniques that lead to changing inappropriate behaviors and prompting the acquisition of adaptive behaviors. Student will develop a Functional Behavior Assessment (FBA) which requires collecting and analyzing data. From this information, student will create a Behavior Intervention Plan (BIP) using social skills programs related to specific interventions.

SPED 747. KISN Training Series. 1-3 hours. This course focuses on a variety of evidence-based practices for individuals who present characteristics of autism spectrum disorders (ASD). The course is taught over the fall and spring semester.

SPED 748. Autism Spectrum Disorder Workshops. 1/2-2 hours. Designed to provide instruction through a professional development/workshop format on a variety of evidence-based practices for individuals who present characteristics of autism spectrum disorders (ASD). Graded on a pass-fail basis. May be repeated.

SPED 750. Assessment in Special Education. 3 hours. Focus upon the administration and interpretation of test instruments including screening tests, formal and informal tests, norm and criterion referenced tests, and diagnostic and achievement tests. Individual assessment of developmental milestones, academic achievement, adaptive behavior, and processes will be included.

SPED 761. Practicum I: Adaptive Learning Needs. 3 hours. Designed to evaluate the candidate’s ability to be a competent and caring special education teacher. This is a supervised experience in a setting serving students with adaptive learning needs under the direction of university personnel and a licensed/certified special education teacher having no fewer than two full years of teaching in the present location. Candidates will take this course at the age level of their general education teacher license. Prerequisite or corequisite: SPED 779 Teaching Elementary Students with Adaptive Learning Needs or SPED 780 Teaching Secondary Students with Adaptive Learning Needs. Graded on a pass-fail basis.

SPED 779. Teaching Elementary Students with Adaptive Learning Needs. 3 hours. Designed to provide the trainee with knowledge and skills in special education teaching for elementary students identified as having adaptive learning needs. Practical application through outside projects is required. Prerequisite: SPED 738 Characteristics of Students with Adaptive Learning Needs.

SPED 780. Teaching Secondary Students with Adaptive Learning Needs. 3 hours. Designed to provide the trainee with knowledge and skills in special education teaching for secondary students with needs at the adaptive level. Practical application through outside projects is required. Prerequisite: SPED 738 Characteristics of Students with Adaptive Learning Needs.

SPED 812. Characteristics of Learners with Autism Spectrum Disorder. 3 hours. This course includes an examination of the psychological, physiological, social, and educational characteristics of individuals who have been identified as having an Autism Spectrum Disorder (ASD). By the end of this course, students will demonstrate knowledge and skills related to: the definition and characteristics of learners with ASD, causes and prevalence of autism, assessment and placement options for individuals who are considered in need of special education services, and best practices in serving individuals with ASD. Prerequisite: Graduate Standing.

SPED 814. Teaching Students with ASD: Strategies for School and Community. 3 hours. The course provides an in-depth study of a model for teaching children with Autism Spectrum Disorders. The course is designed for assessing student needs through functional behavior analysis, differential reinforcement, sensory approaches, structure or visual/tactile supports, and specific skill interventions. The course focuses on developing a comprehensive intervention program for students with ASD. Prerequisite: Graduate Standing and SPED 812 Characteristics of Learners with Autism Spectrum Disorder.

SPED 815. Individuals with Exceptionalities. 3 hours. The teacher candidate will acquire the knowledge, attitudes, and behaviors necessary to understanding that the field of special education is diverse and serves several types of children. Attain a working knowledge of local and state programs that may assist in the education of the atypical child. Prerequisite: Admission to Graduate Study.

SPED 821. Teaching Students with ASD: Strategies for Building Social Relationships. 3 hours. The course provides an in-depth study of a comprehensive model for teaching social skills programming to students with Autism Spectrum Disorders (ASD). Students will learn a five step model that addresses: (a) assessing social functions, (b) distinguishing between social and atypical social behaviors, and related performance deficits, (c) selecting appropriate intervention strategies to promote skills acquisition and enhance performance, (d) implementing intervention strategies, and (e) using effective evaluation to monitor progress. The course focus is on developing a comprehensive social skills intervention program for students with ASD. Prerequisite: Graduate Standing. Co-requisite: SPED 812 Characteristics of Learners with Autism Spectrum Disorder.

SPED 822. Seminar in Special Education Law. 3 hours. This seminar focuses on laws that apply to special education, especially “Individuals with Disabilities Education Act” and “No Child Left Behind Act.” The course relates equal protection, procedural due process, and substantive due process doctrines to school practices affecting students with disabilities and examines the six principles of P.L. 94-142 and similar principles in state legislation. The course will include case studies of recent special education legislation/litigation.

SPED 823. Teaching Students with Autism Spectrum Disorders in the Inclusive Classroom. 2 hours. The course provides an in-depth study of the instructional and communicative skills will facilitate inclusion of students Autism Spectrum Disorders (ASD) within general education settings. Specific research-based strategies in curriculum content acquisition and behavior management will be learned. By the end of the course, the student will demonstrate knowledge and skills related to modifying school work, student directed learning, social relationships and peer support, collaborative teaching, and behavioral support. Prerequisite: Graduate Standing.

SPED 827. Teaching ASD: Understanding Sensory Processing Characteristics. 1 hour. In this course, students will learn about the sensory processing characteristics of students with Autism Spectrum Disorder, assessment techniques and instructional strategies. Students will develop appropriate goals and objectives in the sensory and motor areas, incorporate related services into inclusive educational settings, embed sensory and motor skills training into the general education curriculum, adapt materials and apply assistive technologies. Prerequisite: Graduate Standing.

SPED 829. Teaching ASD: Issues in Transition. 3 hours. The course provides an in-depth study of the transitions a student with Autism Spectrum Disorder (ASD) will face in the educational setting. Transition is the process of supporting students as they move on to the next grade level, as well as after high school. This course will focus on the requirements that educators must follow when planning transitions between grade levels, when making changes in levels of service, and planning for accessing transition services after high school. Prerequisite: Graduate Standing.

SPED 833. Leadership and Collaboration in Special Education. 3 hours. This capstone course is designed to provide special educators with leadership skills necessary for implementing instructional programs that meet the learning needs of all students. Content will include best practices related to communication, negotiation and collaboration with focus on how to develop successful partnerships with families and professionals. Candidates will be expected to problem solve challenging situations related to special education and learn ways to initiate and implement change. The culminating activity will include presentation of the capstone project which was developed in TCHL 891 Methods of Research. Prerequisite: TCHL 891 Methods of Research.

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SPED 849. Partnerships with Families of Exceptional Children and Youth. 3 hours. Provides the trainee with knowledge and skills necessary to implement family-guided intervention approaches for professionals working with exceptional children and youth. The emphasis is on relating these skills to the realities of practice in schools and the classroom. Family-guided intervention suggests families are able to determine their child’s and family’s strengths, needs, important outcomes and necessary services by using information, support and resources provided by a variety of professionals.

SPED 852. Characteristics of Students with Functional Learning Needs. 3 hours. Designed to provide the trainee with knowledge and skills necessary to plan and administer programs for students with functional learning needs. Focuses on the characteristics of students with functional needs as well as the skills necessary for moving, positioning, and protecting students who may have significant medical involvement as part of their disability.

SPED 853. Teaching Students with Functional Learning Needs. 3 hours. Designed to provide the trainee with knowledge and skills necessary in providing education services to students with functional learning needs. The skills of developing individualized education plans and designing both self-contained and inclusive program designs will be evaluated. Skills in positive behavioral support will be focused on as well. Prerequisite: SPED 852 Characteristics of Students with Functional Learning Needs.

SPED 860. Practicum/Functional Learning Needs (3-6). 3 hours. Designed to evaluate the student's ability to be a competent and caring special education teacher. This is a supervised experience under the direction of university personnel and a licensed/certified special education teacher, having no fewer than two full years of teaching in the present position. Prerequisite or corequisite: SPED 853 Teaching Students with Functional Learning Needs. Graded on a pass-fail basis.

SPED 861. The Professional Special Educator. 3 hours. Designed to provide an investigation of techniques and skills to facilitate the role of the professional educator (school psychologist, the counselor, and special education personnel) in curriculum and collaboration as it relates to the education of exceptional students (including those from various diverse groups). This course supports the development of: independent thinking, effective communication, making relevant judgments, professional collaboration, effective participation in the educational system, and professional ethics. Prerequisites: SPED 779 Teaching Elementary Students with Adaptive Learning Needs, SPED 780 Teaching Secondary Students with Adaptive Learning Needs and SPED 853 Teaching Students with Functional Learning Needs.

SPED 864. Practicum II: Adaptive Learning Needs. 3 hours. Designed to evaluate the candidate’s ability to be a competent and caring education teacher. This is a supervised experience in a school setting under the direction of university personnel and a licensed/certified special education teacher having no fewer than two full years of teaching in the present location. Prerequisite or corequisite: SPED 779 Teaching Elementary Students with Adaptive Learning Needs or SPED 780 Teaching Secondary Students with Adaptive Learning Needs and SPED 876 Teaching Young Students with Adaptive Learning Needs.

SPED 872. Practicum III: Adaptive Learning Needs. 3 hours. Designed to evaluate the candidate’s ability to be a competent and caring education teacher. This is a supervised experience in a setting serving preschool children with adaptive learning needs under the direction of university personnel and a licensed/certified special education teacher having no fewer than two full years of teaching in the present location. Prerequisite or corequisite: SPED 779 Teaching Elementary Students with Adaptive Learning Needs or SPED 780 Teaching Secondary Students with Adaptive Learning Needs and SPED 876 Teaching Young Students with Adaptive Learning Needs.

SPED 876. Teaching Young Students with Adaptive Learning Needs. 3 hours. Designed to evaluate the candidate’s ability to be a competent and caring special education teacher. This is a supervised experience in a school setting under the direction of university personnel and a master level certified teacher having no fewer than two full years of teaching in the present location. Prerequisite: SPED 738 Characteristics of Students with Adaptive Learning Needs.

SPED 912. Characteristics of Students with Autism Spectrum Disorder. 3 hours. This course includes an examination of the psychological, physiological, social, and educational characteristics of individuals who have been identified as having an autism spectrum disorder. By the end of this course, students will demonstrate knowledge and skills related to: the definition and characteristics of learners with ASD; causes and prevalence of autism; assessment and placement options for individuals who are considered in need of special education services, and best practices in serving individuals with ASD. Prerequisite: Graduate standing.

SPED 914. Teaching Students with ASD: Research Strategies for School and Community. 3 hours. This course provides an in-depth study of a model for teaching children with autism spectrum disorders (ASD). The Zigzag Model is a system for assessing students needs through functional behavior analysis, differential reinforcement, sensory approaches, using structure or visual/tactile supports, and specific skill interventions. The course focus is on developing a comprehensive intervention program for students with ASD. Prerequisite: Graduate standing.

Social Work

SWK 201. Introduction to Social Work. 3 hours. History, development, and philosophy of social welfare as an institutional system in our society—its organization, function and prospective developments. Exploration of the profession’s role within the system and its relationship to other helping professions. Designed to assist the student in his/her exploration of social work as career choice.


SWK 222. Basic Helping Skills Experience. 1 hours. Students will be exposed to four different service agencies in four, three week sessions. The four areas of emphasis will be: Medical, Child and Family Welfare, Aging, and one experience in either Mental Health or Developmentally Disabled social work. Co-requisite: SWK 221 Basic Helping Skills.

SWK 340. Social Work with Families and Children. 3 hours. The emphasis of this course is on theoretically guided and evidence based social work practice with children and families. The course introduces students to the requisite principles, methods, and theories for effective practice in the area of social work with children and families.

SWK 341. Social Work and the Aged. 3 hours. Social work and social welfare policies, services and interventive processes are studied with reference to the needs of older Americans.

SWK 342. Health Care and Social Work. 3 hours. Policies, services, and interventive processes related to medical and health care settings.

SWK 343. Social Work with Families Affected by Disability. 3 hours. A study of theory, research, and best practices related to family-professional partnerships with families affected by disabilities.

SWK 344. Mental Health Theory and Practice. 3 hours. Policies, services and interventive processes in mental health and retardation settings.

SWK 345. Topics in Social Work (3-6). 1-3 hours. Study of selected social work and social welfare topics with special emphasis upon problem evaluation and intervention. Special subject or topic will be designated in the class schedule. May be repeated when topic is different. Prerequisite: Permission of instructor.

SWK 365. Social Process and Social Policy. 3 hours. An analysis of the probable origins of major social problems and the social policies (historical, current, and proposed) that have been offered to address them. The influence of societal values on definitions of social problems. Provides a context for social work practice. Prerequisite: SWK 201 Introduction to Social Work or permission of instructor. May be taken for honors.

SWK 375. Multiculturalism and Diversity in Social Work Practice. 3 hours. Exploration of personal values, biases, stereotypes, and social conscience related to multiculturalism and diversity. Consideration of applications and ethics in social work practice.

SWK 383. Fundamentals of Research in Social Work. 3 hours. Major conceptual tools of the scientific knowledge-building process, including scientific philosophy, methodology, and design. Emphasis on critical analysis, understanding, and consumption of research in the social and behavioral sciences for knowledge-guided practice. Prerequisite: ENGL 190 Honors English Composition or ENGL 299 Introduction to Research Writing. Open to social work majors only. May be taken for honors.

SWK 385. Human Behavior Social Environment: Individual and Family Functioning. 3 hours. The use of micro level social and behavioral science theories in social work practice. The life cycle and its influences on the development of individual differences is emphasized; the impact of racial, ethnic, and cultural differences is included. Prerequisite: SWK 201 Introduction to Social Work or permission of instructor. May be taken for honors.

SWK 399. Social Work and the Court Process. 3 hours. Focuses on the documentation, court preparation, and testifying in child and adult abuse cases. The course will examine evidentiary rules, court procedures and methods of presenting effective testimony related to abuse and neglect.

SWK 420. Advanced Social Work Practice I. 3 hours. The integration and application of social work knowledge, values, and skills to intervention at various systemic levels, with an emphasis on assessment within a generalist framework. Social work with individuals and families and case management receive special attention. Prerequisites: SWK 201 Introduction to Social Work, SWK 221 Basic Helping Skills, SWK 365 Social Process and Social Policy. Prerequisite or Corequisite: SWK 385 Human Behavior Social Environment: Individual and Family Function or permission of instructor. Only open to social work majors. May be taken for honors.

SWK 465. Social Welfare Policy Analysis. 3 hours. A continuation of SWK 365 Social Process and Social Policy. Analysis of social welfare policies and the assumptions underlying their development. Analytical models are introduced. The process of policy development and prevention/remediation issues are examined. Prerequisite: SWK 365 Social Process and Social Policy or permission of instructor. May be taken for honors.
SWK 485. Human Behavior in the Social Environment: Groups and Communities. 3 hours. An emphasis is placed on theories at the macro and system (group to community) levels. The course includes theories pertaining to family, group, organizational and community systems. Discussion on human diversity, discrimination and oppression is integrated at various levels. Prerequisite: SWK 201 Introduction to Social Work or permission of instructor. May be taken for honors.

SWK 598. Chemical Abuse Treatment and Services. 3 hours. Policies, services, and interventional processes related to the abuse of alcohol and other drugs. May be taken for honors. Prerequisites: Junior, senior or graduate status or permission of instructor.

SWK 599. Social Work and the Law. 3 hours. Analysis of the dynamic relationship between social work and the US legal system. Emphasis on the role of the social worker in dealing with the legal system and the responsiveness of the legal system to the social needs of the people. May be taken for honors.


SWK 621. Practicum in Social Work. 9 hours. Practice experience and field instruction in a social welfare setting with a qualified social worker as field instructor, assisting the student to integrate theory and practice and to develop beginning level professional competence. Students will spend four-eight-hour days per week within the field setting and the fifth day in on-campus coursework. To be taken during the first or second semester of the senior year. Prerequisite: SWK 420 Advanced Social Work Practice I and SWK 620 Advanced Social Work Practice II. Corequisite: SWK 622 Integrative Seminar in Social Work. Open to social work majors only.

SWK 622. Integrative Seminar in Social Work. 3 hours. A cumulative effort during which the student synthesizes and integrates strands of the social work curriculum by (1) developing and explicating his/her personalized social work frame of reference, and (2) demonstrating consumption and utilization of professional literature for knowledge-guided practice, in the context of his/her frame of reference. Corequisites: SWK 620 Advanced Social Work Practice II and SWK 621 Practicum in Social Work. Open to social work majors only. May be taken for honors.

SWK 670. Individual Study in Social Work. 1-6 hours. Intensive individual investigation of selected topics in social work and social welfare. May be repeated for a maximum of 6 hours. Prerequisite: Permission of instructor.

Teaching and Leadership

TCHL 710. Readings in Education. 1-3 hours. Emphasis on contemporary problems. Research suited to the individual needs of the student. May be repeated for a maximum of 3 hours.

TCHL 741. Seminar (____). 1-2/3 hours. A specific area of education will be studied intensively through readings, reports, and discussions. A specific sub-title will be listed on the schedule of classes. May be repeated. A Pass/Fail grading system may be used.

TCHL 806. Special Investigations (____). 1-3 hours. Independent study in education particularly relevant to the educational program of the individual student under the direct supervision of an appropriate staff member. This course may be repeated since the topics of investigation will vary. Prerequisite: Permission of instructor.

TCHL 810. Readings in Education. 1-3 hours. Selected readings with an emphasis on contemporary problems suited to the individual needs of the student. May be repeated for a maximum of 3 hours.

TCHL 816. The Community College. 3 hours. Aims and objectives of community college education; duties and qualifications of the staff, organization, administration, and supervision of the unit; appropriate curricula; relations with other units; student personnel practices and methods of instruction.

TCHL 824. Educational Statistics I. 3 hours. A first course in applied statistics for the behavioral and social sciences. The course investigates descriptive statistics, measures of central tendency, probability, correlation, one-way analysis of variance and some elementary non-parametric statistical analysis. Manual and computer algorithms are used for effective analysis of data and the testing of hypotheses and research questions.

TCHL 825. The Professional Semester Teacher - Initial Experience. 3 hours. This course is designed to provide the teacher candidate with the opportunity to study and experience the fundamentals of teaching with the aim of developing the knowledge base, attitudes, and behaviors that will guide future teaching situations. The experience will be organized to bring theory and practice together where direct field experience is guided by theory. Prerequisite: Admission to graduate study.

TCHL 826. Computer Applications in Advanced Educational Research. 3 hours. This course seeks to equip educational leaders and other professionals with the knowledge and skills needed to conduct research using advanced and multivariate statistical methods. Students will learn the basics of digital data collection and analysis for qualitative research, along with how to use statistical packages such as SPSS and SAS for quantitative data analysis. Students will also learn how to use statistics as an aid in making decision and change with an organization. Prerequisite: Admission to Ed.S. program or consent of the instructor.

TCHL 834. Curriculum Development. 3 hours. Fundamental concepts underlying the school curriculum and their application to planning and development; social responsibility of the school; pupil needs and purposes; criteria for the selection of the curriculum content; appraisal of new trends and policies designed to improve the effectiveness of the school.

TCHL 835. Methods of Teaching Math, Science, and Social Studies. 3 hours. The teacher candidate will acquire the knowledge, attitudes, and behaviors with regard to the content and organization of mathematics, science and social studies curricula in the elementary school. The student will study instructional strategies and best practices with respect to objectives, methods, materials, and content. Prerequisite: Admission to Graduate Study.

TCHL 836. Positive Classroom Management. 3 hours. This course focuses on classroom-proven research-based classroom management practices that support higher student achievement. The course includes: Establishing basic rules and procedures, using effective discipline and consequences, creating positive teacher-student relationships, effectively teaching students problem-solving skills, establishing a safe learning environment, and creating a behavior management plan. Prerequisite: Admission to Graduate Study.

TCHL 837. Positive Classroom Instruction. 3 hours. This course will focus on five different concepts of instruction. These include the anatomy of a structured lesson, corrective feedback, lesson design, lesson presentation and incentives for diligence and excellent work from students.

TCHL 838. Expectations, Challenges in Education. 3 hours. Current state and national initiatives that impact PK-12 education, using educational history, philosophy, psychology, and sociology as a means to analyze and synthesize data for practice.

TCHL 839. Techniques for Teaching Secondary. 3 hours. The course is designed to provide an introduction to the methodology, curriculum, and current research in the field of secondary teaching.

TCHL 840. Seminar: (____). 1-3 hours. A specific area in education will be studied intensively through readings, reports, and discussions. A specific sub-title such as comparative education, the middle school, etc., will be listed in the schedule of classes. May be repeated. A Pass/Fail grading system may be used. Prerequisite: Permission of instructor.

TCHL 843. Trends and Issues. 3 hours. Exploration of the concept of school reform through an examination of the critical issues facing the American school and the promising practices found in restructuring the educational system.

TCHL 849. The Professional Semester Teacher-Culminating Experience. 3 hours. This course is designed to provide the teacher candidate with the opportunity to study and experience the fundamentals of teaching with the aim of developing the knowledge base, attitudes, and behaviors that will guide future teaching situations. The experience will be organized to bring theory and practice together where direct field experience is guided by theory. Prerequisites: Admission to Graduate Study and TCHL 825 The Professional Semester Teacher-Initial Experience.

TCHL 850. Current Teaching Practices. 3 hours. The evolution of research on effective teaching in terms of methodologies and perspectives. Examination of current day classroom practices and how to transfer research in the area of teacher effectiveness into practice.

TCHL 851. Multicultural Approaches to Diversity in the Classroom. 3 hours. Designed for the practitioner to provide an in-depth awareness of and sensitivity to the concepts and goals of multicultural education and diversity with a focus on the special needs learner. Includes the development of instructional settings that enables the practitioner to use the role language plays in cultural identity. Explores the diverse, historical tapestry of cultures that make up the US.

TCHL 852. Advanced Culture and Language Acquisition for English Language Learners. 3 hours. An in-depth study of the fundamentals, similarities, and differences of first and second language acquisition; stages of second language acquisition; history and development of second language instruction; foundations of second language learning; and similarities between child and adult language acquisition. Designed to assist the practitioner explore cross- cultural interaction and socio-cultural factors necessary to communicate with students, parents, and community members.

TCHL 853. Advanced Assessment and the English Language Learner. 3 hours. An advanced study of assessment issues relating to formal and informal-first and second- language assessment instruments and techniques. Directed to the practitioner’s use of item analysis and tests construction methods and administration, interpretation and explanation of test results including identification, placement, monitoring, and exiting of the ELL. Includes the use and interpretation of group literacy assessment tools and programs.
TCHL 854. Advanced Methods and Instructional Materials for English Language Learners. 3 hours. Designed for the practitioner to provide an in-depth understanding of the role of language in learning. Encompasses the development of ELLs' communication skills and techniques necessary to support verbal, non-verbal, and multimedia resources. Includes approaches, methods, materials, and instructional techniques in the school setting; strategies for native language support, curricular and instructional adaptation; and advocacy for programs, approaches, and students. Provides strategies for using a broad range of literacy methodologies, and programs for ELLs that acknowledges the important role of family literacy in second language acquisition.

TCHL 855. Advanced Practicum with English Language Learners. 3 hours. An advanced supervised, field-based, capstone experience in the education of English Language Learners organized according to a platform for professional practice and grounded in a best-practices framework. Specifically designed to facilitate and expand the practitioner's knowledge and ability to be an effective ESOL teacher. Prerequisites or concurrent enrollment required: TCHL 851 Multicultural Approaches to Diversity in the Classroom, TCHL 852 Advanced Culture and Language Acquisition for English Language Learners, TCHL 853 Advanced Assessment and the English Language Learner, TCHL 854 Advanced Methods and Instructional Materials for English Language Learners, and ENGL 714 Applied Linguistics for English for Speakers of Other Languages or permission of instructor.

TCHL 870. Grant Writing and External Resources. 3 hours. This course is intended to bridge the gap between the theory and practice of scholarly research. It will assist students in structuring their conceptual frameworks for research proposals, in testing new research protocols, and in validating innovative instruments. Students will analyze and critique external resources. Students will prepare grant proposals related to their scholarly interests. Prerequisite: Permission of instructor.

TCHL 878. Assessment for Effective Teaching. 3 hours. An examination of the current research on effective PK-12 assessment in terms of methodologies and perspectives and exploration of state and national assessment directions, education legislation frameworks, test construction and interpretation, performance and portfolio assessments, as well as various assessment techniques that meet or accommodate diverse intelligences and learning needs.

TCHL 879. Instructional Planning and Delivery. 3 hours. Course emphasizes current research on effective instructional planning and delivery, with opportunities to implement and evaluate findings in the classroom. The course explores and integrates varied techniques to accommodate diverse learners into the lessons that are developed.

TCHL 881. Orientation to College Teaching. 3 hours. Laboratory work in the classroom situation; work with instructional aids, involvement in curriculum planning, test construction, and classroom instruction. By appointment. Permission of instructor is required.

TCHL 882. College Teaching Internship. 3 hours. Teaching in a community college or in lower division college classes. Admission by application during previous term. Pass-No Credit. Permission of instructor is required.

TCHL 884. Educational Statistics II. 3 hours. A continuation of TCHL 824 Educational Statistics I. The course investigates multivariate analysis of variance and co-variance. Statistical methods are applied to hypotheses testing and research questions. Mixed method designs and qualitative research perspectives, data collection, analysis, and verification will be studied. Computer and manual analysis of data are integrated into the course through a lab experience using various computer application software for statistics (e.g., SPSS, Excel, web statistics, N6 directions, classroom evaluation systems, test construction and interpretation, performance and portfolio assessments, as well as various assessment techniques that meet or accommodate diverse intelligences and learning needs.

TCHL 890. Research and Thesis. 3-6 hours. Prerequisite: SSLS TCHL Methods of Research.

TCHL 891. Methods of Research. 3 hours. Methods and techniques of research, interpretation, evaluation, and use of research. Emphasizes analysis of problems, selection of topic and development of a research plan. Should be scheduled early in graduate program. Often bundled/combined with LDSP 800 Educational Leadership I.

TCHL 906. Special Investigations. 1-3 hours. Independent study particularly relevant to the educational program of the individual student under the direct supervision of an appropriate staff member. May be repeated with different topics. Prerequisite: Permission of instructor.

TCHL 907. Practicum in Higher Education. 3 hours. Supervised field experience in a higher education setting, including the following areas of focus: instruction, student services, or leadership. Prerequisite: TCHL 816 The Community College or permission of instructor.

TCHL 910. Readings in Education. 1-3 hours. Selected readings with an emphasis on contemporary problems suited to the individual needs of the student. May be repeated for a maximum of 3 hours.

TCHL 930. Seminar in Research Skills. 3 hours. This course meets the research requirement for Option I and Option II of the Specialist in Education degree. It is intended for practitioners who will be users of educational research and educational evaluation. The course will emphasize a review of educational research and evaluation principles, the use of these skills in research design and interpretation, research and evaluation, and the presentation of reports on topics of interest to the students. Prerequisites: TCHL 891 Methods of Research and TCHL 824 Educational Statistics I, or permission of instructor.

TCHL 940. Seminar: (____). 1-3 hours. Specific problems or a specific area in education will be studied intensively through readings, reports, and discussions. The topics to be studied will be indicated in the schedule of classes. May be repeated if subject matter is different.

TCHL 990. Special Research Project. 2-6 hours. Required of all candidates in Option II. May be repeated for a maximum of six hours.

TCHL 991. Research and Specialist Thesis. 3-6 hours. Prerequisite: TCHL 930 Seminar in Research Skills.

TCHL 993. Critical Issues in Education. 1-3 hours. A study of critical issues involving the public school and higher education; effect of research on teaching and emphasis on modern innovations. Prerequisites: Advanced graduate standing and permission of instructor.

Technology Education

TE 331. Overview of Technology. 3 hours. Activity-based course provides an overview of technological systems - communication, power/energy/transportation, manufacturing, and construction. Manipulative activities provide experiential learning and reinforcing technological literacy content - nature of technology, impacts of technology, engineering design, and abilities for a design world, based on standards for technological literacy. Required for Technology Education majors and recommended for educators in general. Prerequisite: EDUC 261 Explorations in Education or permission of instructor.

TE 403. Current Topics in Technology Education (____). 1-3 hours. Current technical and/or pedagogical topics related to technology education are presented. Guest lecturers and presenters from industry may be utilized. May be repeated if subject matter is different for a maximum of nine credit hours. Prerequisite: Permission of instructor.

TE 420. Professional Development 1. 2 hours. An overview of professional organizations associated with Technology Education. Activities include presenting at a regional technology conference, participating in a regional Technology Student Association conference as a judge, participating in a regional Technology Education Collegiate Association or equivalent event. Prerequisites: GT 300 Engineering Design and Problem Solving, GT 310 Contextual Topics in Technology and Engineering, GT 320 Communication Systems Technology, GT 330 Engineering Materials and Processes, GT 340 Power/Energy/Transportation Systems and GT 360 Computer Aided Drafting and/or permission of instructor.

TE 421. Professional Development 2. 2 hours. A professional development course designed to encourage students to develop professional attributes by participating in a national Technology Education Collegiate Association conference as well as present or co-present at the International Technology Education Association Conference as a professional member. The students will participate in professional development by preparing and presenting recruitment presentations at area high schools. Prerequisites: GT 300 Engineering Design and Problem Solving, GT 310 Contextual Topics in Technology and Engineering, GT 320 Communication Systems Technology, GT 330 Engineering Materials and Processes, GT 340 Power/Energy/Transportation Systems and GT 360 Computer Aided Drafting and/or permission of instructor.

TE 479. Teaching Techniques for Technology and Engineering Education. 3 hours. Techniques, methods and course content used in teaching technology education in middle, secondary and post-secondary schools. Development of curriculum materials via computer and traditional methods, including a course of study and lesson plans. To be taken last spring semester prior to professional semester. For undergraduates only. May be taken for honors. Prerequisites: GT 191 Foundations of Technology and Engineering and/or permission of instructor.

TE 496. Organization and Management for Technology and Engineering Education. 3 hours. Instruction and laboratory experiences in organization and management of technology and engineering education laboratories, including: selection and sources of equipment and supplies, laboratory planning, safety organization and management concerns, scheduling, student evaluation, discipline, professionalism, student organizations, activity and lesson planning. Computer applications incorporated throughout. For technology and engineering education certification. May be taken for honors. Prerequisite: To be taken the semester or year prior to professional semester and/or permission of instructor.
TE 551. Integrated Technology for Educators. 3 hours. Reflects Standards for Technological Literacy: Content for the Study of Technology, essential core of technological knowledge and skills that K-12 students should acquire. Content addresses today’s technological systems in communication, transportation, production and bio-related technologies. Provides instructional strategies for enhancing technological literacy-critical thinking, design and problem solving. Laboratory activities, integration of academics, and development of thematic units and teaching tools are primary means for learning. Prerequisite: TE 331 Overview of Technology or permission of instructor. May be taken for honors.

TE 579. Supervised Student Teaching and Follow-Up of Teachers. 2 hours. Departmental representatives will visit each student teacher during the professional semester. Additionally, departmental representatives will follow up with each area student during the first year of teaching with assistance and support. Concurrent enrollment in the professional semester is required. Offered on a Pass-Fail basis only.

TE 679. Senior Assessment in Technology and Engineering Education. 1 hour. Students complete a portfolio, resume, and participate in interview simulations and complete comprehensive examinations of technical and professional knowledge in technology education. Prerequisites: Technology education major in last semester of course work prior to professional semester; permission of instructor.

TE 750. Technology and Society. 3 hours. The influence of technology on society is examined. Social-cultural impacts in regard to communication, medicine, transportation, construction, manufacture of goods and services are presented. Discussion centers on ethical, environmental, and societal issues resulting from technological development and decisions regarding it.

TE 753. Special Topics in Technology Education (____). 3-12 hours. Selected topics in technology education. Classroom and laboratory study may be repeated if subject matter is different. Each class limited to a single topic and for a specific number of credit hours. Prerequisite: 9 hours of technology education and/or permission of instructor.

TE 754. Power/Energy/Transportation Systems Technology. 3 hours. Development, control, transmission, conversion, and inter-relationship of power sources. Content, curriculum and techniques of laboratory operation. Prerequisite: Adequate undergraduate preparation as determined by the instructor.

TE 755. Materials and Processes (____). 3 hours. Study of organic and inorganic materials and the processes used to change these to meet the material needs of mankind. Content, curriculum and techniques of laboratory operation. Prerequisite: Adequate undergraduate preparation as determined by the instructor.

TE 756. Communication Systems Technology (____). 3 hours. Methods of developing and transmitting ideas and information. Content, curriculum and techniques of laboratory operation. Prerequisite: Adequate undergraduate preparation as determined by the instructor.

TE 796. Organization and Management for Technology Education Programs. 3 hours. Organization and management practices for multipurpose laboratories and classrooms are presented. Content includes: facility planning, procurement of equipment and supplies; safety practices and planning; scheduling; discipline strategies; professionalism and incorporation of student organizations. Computer applications applicable to the organization and management topics are incorporated.

TE 806. Studies in Technology Education (____). 1-3 hours. An in-depth investigation into an area of technology education. The investigation may be technical or pedagogical and will result in a research report. Approval of problem topic by instructor is required. May be repeated if subject matter is different for a maximum of 9 hours.

TE 807. Problem Solving and Creative Thinking. 3 hours. Participants learn technological problem solving strategies and creative thinking techniques for use in technology courses. Concepts are applicable to other academic disciplines, and include: orientation to problem solving and technological problem solving; creative thinking strategies; resources to promote creative thinking; development, integration, and evaluation of problem solving activities in programs; and hands-on experiences in problem solving and creative thinking.

TE 840. Production Technology: Construction (____). 3 hours. Construction systems development in designing, planning, and constructing structures on-site. May be repeated when content is different.

TE 841. Production Technology: Manufacturing (____). 3 hours. Manufacturing systems, including the organization and operation of a manufacturing enterprise. May be repeated when content is different.

TE 850. Contemporary Developments in Technology Education. 3 hours. Philosophical bases, content, and organization patterns of technology education.

TE 851. Integrated Technology for Educators. 3 hours. Reflects Standards for Technological Literacy; Content for the Study of Technology, essential core of technological knowledge and skills that K-12 students should acquire. Provides instructional strategies for enhancing technological literacy-critical thinking, design and problem solving. Laboratory activities focus on integration of academics and technology, and development of thematic units. Specialized equipment, such as video editing stations, CNC vinyl sign makers, and laser cutting systems are used to develop activities, video instruction, and presentations for area classrooms.

TE 862. Topics in Power/Energy/Transportation Systems Technology (____). 3 hours. Recent developments in power and energy and transportation. May be repeated, when content is different, for a maximum of 6 hours.

TE 864. Topics in Communication Technology (____). 3 hours. Recent developments in communication technology. May be repeated, when content is different, for a maximum of 6 hours.

TE 881. Orientation to College Teaching. 3 hours. Laboratory work in the classroom situation, work with instructional aids, involvement in curriculum development, test construction, and classroom instruction.

TE 882. Instructional Strategies for Technology Education. 3 hours. Instructional approaches, including conceptual learning, interdisciplinary, social-cultural, problem-solving, systems integration, and interpretation of technology are presented. Delivery systems for teaching, including formal presentations, group interaction techniques, discovery, inquiry and experimentation, and games/simulations.

TE 892. College Teaching Internship. 3 hours. Teaching experience in a community college or university. Prerequisite: TE 881 Orientation to College Teaching or permission of instructor. Permission of instructor is required. May be taken as graded or pass-fail basis, as determined at the time of enrollment.

TE 893. Seminar in Technology Education (____). 1-3 hours. Selected readings and discussions in technology education and related educational problems. May be repeated for a maximum of 9 hours when content is different.

Technology Management

TM 350. Societal Influence of Technology. 3 hours. A study of the impact of technology on society, both personally and professionally. A discussion of managing it in our daily lives.

TM 390. Trade and Job Analysis. 3 hours. How to analyze trades, occupational pursuits, and jobs for divisions, operations and information. Consideration of the organization for instructional purposes.

TM 399. Technology Management Professional Development. 2 hours. Preparation of students for employment in technology management internships and full-time positions. Emphasis is placed on academic planning, certification opportunities and procedures, resume content, job search skills, job interview, business etiquette, time management and goal setting.

TM 500. Industrial Organization and Technology Management. 3 hours. An overview of industrial organization and the interrelationship of functions and fundamental principles which lead to effective coordination and control. Prerequisite: Junior standing. May be taken for honors.

TM 501. Work Measurement and Efficiency Methods. 3 hours. Productivity studies including motion and time study, performance ratings, and contemporary worker organization patterns and methods improvement. Relationships of workers, cost reduction, and productivity. Prerequisite: MATH 143 Elementary Statistics. May be taken for honors.

TM 503. Facility Maintenance and Management. 3 hours. A study of industrial facility systems. Management of maintenance programs and personnel. Design, inspection, and maintenance of electrical, pneumatic, hydraulic, and environmental systems. Prerequisite: Junior standing. May be taken for honors.

TM 520. Leadership in the Workplace. 3 hours. A study of leadership styles, traits and characteristics and their effectiveness in various situations. Leadership related to employee performance.

TM 555. Diversity in Technology Management. 3 hours. An analysis of how educational, social, cultural, political, and psychological events have and will continue to impact the manufacturing and technology-based workforce and the human resource department. The relationship of workforce diversity to employee recruitment, development, and utilization will be emphasized.

TM 605. Special Problems (____). 1-3 hours. Individual study in the students’ major or minor area. May be repeated if subject matter is different for a maximum of six hours to be applied towards a degree program. May be taken as graded or pass-Fail.

TM 653. Workforce Preparation. 3 hours. Familiarizes students with modern innovative methods for developing and preparing employees. The course provides examples of employee empowerment and problem-solving techniques used in preparing the workforce.

TM 679. Presentation Skills. 3 hours. Theory and practice of presentation skills for formal and informal presentations for various audiences in industrial setting using current software and multi-media equipment. Includes determining the audience, connecting with the audience, developing the presentation, developing practical applications, as well as evaluating performance.
COURSE DESCRIPTIONS

TM 683. Internship in Technology Management. 3-6 hours. Intern experience in actual workplace settings that allows the students to apply what they have learned in the classroom setting. Directed by university faculty and coordinated with workplace supervisors, the course will include detailed work experiences related to technology management in the work environment. Prerequisite: Senior standing. Offered as Pass/Fail only.

TM 699. Senior Assessment in Technology Management. 1 hour. A capstone course for Technology Management bringing together the student’s personal, professional and technical competence which will include authentic assessment and outcome of student development of a career portfolio. Prerequisite: Senior standing.

Technical Teacher Education

TTED 193. Workshop for Beginning Vocational Teachers. 3 hours. Intensive study of methods of teaching, principles of learning, and evaluating procedures. Summer only. Offered as Pass-Fail only.

TTED 201. Vocational Work Experience. 3-12 hours. Work experience in a specific vocation accepted toward vocational teacher certification. May be repeated for a maximum of 12 hours. Offered as Pass-Fail only.

TTED 308. Laboratory and Shop Safety. 3 hours. A study of safety performance and shop safety, including inspection, planning and maintenance of a shop laboratory and a school shop safety prevention program.

TTED 391. Student Assessment Development in Vocational/Technical Education. 3 hours. Techniques and instruments to be utilized in evaluating the affective, cognitive, and psychomotor domains for applied technology courses.

TTED 395. Task Analysis for Technical Teachers. 1 hour. Techniques to analyze occupational position into duties, tasks and steps. The focus of the material is for the development and modification of vocational/technical program curriculum.

TTED 396. Curriculum Usage in Technical Education. 2 hours. Methods of using developed curriculum. Emphasis is placed upon components of the curriculum process and how curriculum is used to make instruction more effective and efficient. Corequisite: TTED 395 Task Analysis for Technical Teachers.

TTED 401. Vocational Work Experience. 3-12 hours. Work experience in a specific vocation accepted toward vocational teacher certification. May be repeated for a maximum of 12 hours. Offered as Pass-Fail only. Prerequisite: TTED 201 Vocational Work Experience (___).

TTED 445. Development of a Unit Study Guide. 3 hours. Organization and design of a training program to meet a specified need in business and industry. Progresses from needs analysis through instructional materials and methods selection to evaluation procedures.

TTED 479. Techniques for Teaching Vocational-Technical Education. 3 hours. Techniques and methods used in teaching vocational-technical education in vocational classes at the secondary and post-secondary level. To be taken before the professional semester. Offered by the Technical Education Department for undergraduates only. Prerequisites: Admission to teacher education and PSYCH 357 Educational Psychology.

TTED 483. Teaching Internship. 5 hours. Directed teaching internship for persons employed as vocational instructors. Prerequisite: Permission of instructor. Offered as Pass/Fail only.

TTED 605. Special Problems (___). 1-6 hours. Individual study in the students’ major or minor area. May be repeated if subject matter is different for a maximum of 6 hours to be applied towards a degree program. May be taken as graded or pass-fail.

TTED 606. Industrial Supervision. 3 hours. Principles and techniques of handling and understanding interpersonal relationship between the supervisor and employee. Covering such topics as effective communications, leadership traits, improving work methods, industrial safety, and instructional skills for supervisors and foremen.

TTED 607. Student Leadership Development in Vocational Education. 3 hours. The organization and administration of vocational student organizations, especially at the local level. Incorporation of the student organization into the vocational program curriculum and the uses in public relations.

TTED 608. Components of Work-based Learning in Career and Technical Education. 3 hours. Techniques for developing, operating, and evaluating work-based learning opportunities for students in Career and Technical Education.

TTED 610. Seminar (___). 1-6 hours. Study of a particular topic, problem, or issue in applied technology education. May be repeated if subject matter is different with a maximum of 6 hours to be applied towards a degree program.

TTED 619. Planning Shop Layout for Vocational Education. 3 hours. Planning and layout of school shop facilities and the organization and management of these facilities.

TTED 694. Principles of Vocational Education. 3 hours. Principles of vocational education and their impact on the legislation which has supported vocational education.

TTED 695. Using Technology as an Instructional Tool. 2 hours. An applied course as to how technical teachers can use technology to enhance instruction in the classroom and laboratory. Includes how to use computers, presentations softwares, scanners, HTML, projectors and other emerging technology as an instructional tool.

TTED 697. Identification and Instruction of Students with Special Needs. 3 hours. A study of and teaching strategies for special needs students as identified in P.L. 94-142. Awareness, strategies for teaching, curriculum and facility modification as needed for special needs students will be addressed.

TTED 698. School Improvement Processes in Career and Technical Education. 2 hours. An introductory course examining different methods and theories as to the improvement of schools and the roles in which teachers play in this process.

TTED 708. Laboratory and Tool Safety in Occupational Education. 3 hours. Intensive study in safety performance, safety inspection, legal issues, and maintaining a safe laboratory environment in occupational education programs.

TTED 731. Adult Learners. 3 hours. Facilitating adult learning. Areas of concentration are motivation, adult learners’ characteristics, cultural issues, styles and patterns. Special attention will be focused on the adult learners in occupational, correctional, basic adult education, community colleges, extensions and proprietary student learner’s programs. Focused toward identification of learning styles, needs and how to match delivery techniques to learners needs.

TTED 779. Instructional Methods in Technical Education. 3 hours. Development of instruction as basic means of communication; effective demonstration, lecture, conference, and discussion procedures; the question-and-answer, visual aids, aid teaching devices; relation of methodology to course organization.

TTED 780. Classroom Management in Career and Technical Education. 3 hours. Different classroom and laboratory methods are covered for which a teacher may use to manage the classroom and/or laboratory environment and create an environment that is conducive to learning. Topics covered include the use of control theory, creating a positive learning environment, motivating students to learn, changing the behavior of students through the use of different teaching methods, teachers serving as counselors, developing effective consequential actions and discipline, and nonviolent-crisis intervention.

TTED 801. Organization and Administration of Vocational Education. 3 hours. Organization of vocational-technical education on the national, state and local levels; a study of laws, guidelines, and requirements for administration of vocational-technical programs. Recommended for school administrators and supervisors.

TTED 805. Special Problems (___). 1-6 hours. Directed readings and special investigations or problems as determined in consultation with the major advisor. May be repeated if subject matter is different with a maximum of 6 hours to be applied towards a degree program. Prerequisite: TTED 891 Methods of Research or permission of instructor. May be taken as graded or pass-fail.

TTED 807. Career and Technical Education Student Organizations. 3 hours. The study of the organization and administration of career and technical student organizations at the local, state and national level. Includes how student organizations are incorporated into career and the technical education program curriculum.

TTED 808. Work-based Learning in Career and Technical Education. 3 hours. Techniques for developing, implementing, operating, and evaluating work-based learning sites for students in Career and Technical Education programs.

TTED 810. Seminar (___). 1-6 hours. Intensive study of a particular topic, problem or issue in education. May include comprehensive reading and research with emphasis on current issues. May be repeated if subject matter is different with a maximum of 6 hours to be applied towards a degree program.

TTED 819. Planning Facilities for Vocational Education. 3 hours. Planning, building, and management problems in the construction and development of school shops. Special problems and assignments for those seeking graduate credit. Graduate standing or permission of instructor.

TTED 832. Needs Assessment. 3 hours. Purposes and uses of needs assessments. A concentrated study and practical application of the methods and procedures involved with determining the specific areas to be surveyed including planning, development of survey instrument, implementation, data collection, analyzing and reporting findings.

TTED 845. Instructional System Design and Curriculum Development. 3 hours. Principles and components of a systems approach to the design of human resource development and vocational/technical programs. Needs and task analysis, instructional objectives, design and development of course components, and program evaluation. Prerequisite: TTED 779 Instructional Methods in Technical Education recommended.

TTED 873. Internship for Technical Teachers. 5 hours. Students will have a supervised experience which will better prepare them to teach in their vocational/technical field. May be taken as graded or pass-fail.
TTED 887. Data Analysis and Interpretation in Technology. 3 hours. This is an applied statistics course that utilizes a common statistical software titled SPSS. This course is designed for individuals within the area of technology. The course content consists of determining levels of measurement, measures of central tendency and variability, creating and using an SPSS data base, graphic and verbal representation of data, relationships between variables, running and analyzing differences between parametric and nonparametric populations, and simple linear regression.

TTED 890. Research and Thesis. 3-6 hours. Prerequisite: TTED 891 Methods of Research. May be repeated for a maximum of 6 hours. May be taken as graded or pass-fail.

TTED 891. Methods of Research. 3 hours. Required of all candidates for a Masters of Science degree in a major in technical teacher education. Includes the fundamental principles and techniques of research. Option I students submit a paper representing careful research and reporting on an approved problem.

TTED 893. Student Assessment Development in Career and Technical Education. 3 hours. Development of procedures and devices used to efficiently evaluate the affective, cognitive, and psychomotor domain in the different occupational fields that make up career and technical education.

TTED 894. History and Philosophy of Vocational Education. 3 hours. The history, development, and philosophy of vocational education, social and economic reasons for present movement, and federal legislation affecting vocational education and its effects on the public education program of the states; the state plan for trade and industrial education.

TTED 897. Teaching Special Vocational Students. 3 hours. Principles and techniques for vocational instructors in the organization of classes with students under P.L. 94-142 Awareness, legalities, ancillary services and curriculum modification needed for the special vocational needs students will be presented.

TTED 900. Seminar in Research. 3 hours. Assist candidates for the Specialist in Education degree in planning research project. Prerequisites: Admission to Specialist in Education program and credit in TTED 891 Methods of Research. May be taken as graded or pass-fail.

TTED 990. Special Research Project. 1-6 hours. For the Specialist in Education degree. A research, experimental or field study organized and presented as a written research project. May be repeated for a maximum of 6 hours. May be taken as graded or pass-fail.

TTED 991. Special Investigations (____). 3-6 hours. Special problems related to industrial education under the direct supervision of an appropriate staff member. Prerequisite: Twelve semester hours in the subject matter area or consent of instructor. May be repeated for a total of 6 hours. May be taken as graded or pass-fail.

TTED 992. Special Investigations (____). 3-6 hours. Independent study in a technical subject matter teaching area, including power and transportation, electricity—electronics, design, graphic arts, wood utilization, plastics technology, and metal technology. Prerequisites: Twelve semester hours in the subject matter area or consent of instructor. May be repeated for a total of 6 hours. May be taken as graded or pass-fail.


Technology and Workforce Learning

TWL 294. Technology Laboratory Internship (____). 1-3 hours. Variable credit for one to three hours. Can be repeated. Technology and Workforce Learning students can enroll for the course in their technical area as laboratory assistant during the semester a specific laboratory if offered. Prerequisite: Written permission of instructor. May be taken for honors.

TWL 300. Internship (____). 3 or 6 hours. A planned work experience in an industry or business directly related to the student's major. The student will be employed by an industry or business, and both parties will submit reports and evaluations of experiences to the department coordinator. If taken for three credit hours, may be repeated for a maximum of six hours. Offered on a Pass/Fail basis only. Prerequisite: Permission of instructor.

TWL 400. Internship (____). 3 or 6 hours. A planned work experience in an industry or business directly related to the student's major. The student will be employed by an industry or business and both parties will submit reports and evaluations of experiences to the department coordinator. If taken for three credit hours, may be repeated for a maximum of six hours. Offered on a Pass/Fail basis only. Prerequisite: TWL 300 Internship, and permission of instructor.

TWL 401. Individual Studies in Technology (____). 1-3 hours. Special studies in technology to provide for the individual requirements of the student desiring supplemental work in the student's field of special interest. May be repeated for a maximum of 6 hours if subject matter is different.

TWL 403. Current Topics in Technology (____). 1-3 hours. Emerging technologies in the automotive, wood, graphic communication, power and energy, and related areas. Guest lecturers and presenters from industry may be utilized. May be repeated if subject matter is different for a maximum of 6 hours credit. May be taken on a pass-fail basis.

TWL 694. Technology Laboratory Internship (____). 1-3 hours. Variable credit for one to three hours. Can be repeated. Technology and Workforce Learning students can enroll for the course in their technical area as laboratory assistant during the semester a specific laboratory is offered. Prerequisite: Written permission of instructor. May be taken for honors.

TWL 795. Special Topics in Technology (____). 1-3 hours. Selected topics in technology. Regularly scheduled classroom and laboratory study pertaining to a distinct body of technical knowledge. May be repeated if subject matter is different. May be taken on a pass-fail basis.

TWL 897. Seminar in Technology (____). 1-3 hours. Seminar in which current trends, structures, philosophies and processes in technology are examined. Special interest areas will be studied intensively. May be repeated if subject matter is different for a maximum of 6 hours. Prerequisite: Permission of instructor.

Undergraduate Studies

UGS 100. The Freshman Experience. 2 hours. Development of critical thinking skills is an essential component. Topics covered include development of higher order thinking skills through exposure to a variety of problem solving methods; study skills; a study of the General Education curriculum and objectives of a liberal arts education; career choice and course selection; a discussion of social issues that impact on University life; PSU resources, health, time, and money management issues; and diversity topics.

UGS 101. Transitions. 1-2 hours. The transition to university life from another institution of higher education, a work environment, a foreign country, or other situations that would benefit from this assistance. Emphasis on academic, personal and social development necessary to be a successful and engaged member in the university community. New international students are required to take this course to assist in their transition to the American educational experience.

UGS 102. Athlete Transitions. 1 hours. Skills necessary to become a successful student-athlete at Pittsburg State University. NCAA eligibility and rules education, press communication, career development, drug and alcohol awareness, time management, and general orientation to the University. Required for all incoming student athletes.

Women’s Studies

WOMEN 200. Introduction to Women’s Studies. 3 hours. Interdisciplinary survey focuses on women’s lives and experiences to investigate connections between gender and race, class, nationality, sexuality, and other cultural differences.

WOMEN 399. Global Women’s Issues. 3 hours. Interdisciplinary analysis of feminist theory and global women’s issues.

WOMEN 500. Topics in Women’s Studies. 1-3 hours. Studies in some aspect of feminism; gender, race, class and/or nationality as related to women’s studies; sexuality; feminist theory; or other aspects of women’s studies as viewed from a variety of disciplines. May be repeated if topic varies. Prerequisites: WOMEN 200 Introduction to Women’s Studies or WOMEN 399 Global Women’s Issues or permission of Director of Women’s Studies.

WOMEN 600. Project in Women’s Studies. 3 hours. Individual study and field work in various settings appropriate to the analysis of gender and women’s issues. Includes a two credit hour field-work project. For Women’s Studies minors only. Prerequisites: WOMEN 200 Introduction to Women’s Studies or WOMEN 399 Global Women’s Issues.

WOMEN 700. Topics in Women’s Studies. 1-3 hours. Studies some aspect of feminism; gender, race, class and/or nationality as related to women’s studies; sexuality; feminist theory; or other aspects of women’s studies as viewed from a variety of disciplines. May be repeated if topic varies. Prerequisites: WOMEN 200 Introduction to Women’s Studies or WOMEN 399 Global Women’s Issues or permission of Director of Women’s Studies.

Wood Technology

WT 103. Experiences in Wood Technology (____). 1-3 hours. Competency-based learning experiences in wood technology. May be repeated if subject matter is different for a maximum of six hours. Permission of instructor.

WT 181. Introduction to Woodwork. 3 hours. Basic hand and machine tool operations associated with fine woodworking. Emphasis on individual craftsmanship. Class appropriate for any individual interested in learning basic woodworking.

WT 182. Wood Science. 3 hours. Basic structure of wood, its anatomy, and the identification of the various commercial woods used in the United States. Wood moisture relationships.

WT 185. Fundamentals of Wood Technology. 3 hours. Wood technology fundamentals including wood as a manufacturing material, basic machine processes, assembly and finishing practices, and computer applications in secondary wood manufacturing. Also provides wood technology majors an orientation to overall wood program, laboratories, safety, and operating procedures.

WT 226. CAD for Wood Product Development. 3 hours. Introduction to drafting/design and use of CAD software (e.g., AutoCAD) in wood product design and development.
WT 282. Machine Woodworking. 3 hours. Use and care of major stationary and portable woodworking equipment. Introduction to mass production concepts of product design and fixtures. Prerequisite or corequisite: WT 185 Fundamentals of Wood Technology or permission of instructor.

WT 286. Primary Wood Processing. 3 hours. The study of primary wood processing techniques including: harvesting, logging grading and scaling, lumber yield, and wood seasoning practices. Applications, properties, grades and purchasing of composite materials.

WT 300. Wood Internship (____). 3-6 hours. A planned work experience in a wood industry or business. The student will be employed by a wood industry or business, and both parties will submit reports and evaluations of experiences to the department coordinator. May be repeated for up to six credit hours. Offered on a Pass/Fail basis only. Prerequisite: Permission of instructor.

WT 301. Finishing. 3 hours. Use, application, and rubbing of all kinds of transparent and opaque finishes that are applied by brush, spray, and the wipe-on methods for wood. Special attention is given modern techniques and finishing procedures.

WT 326. CAD for Wood Product Development I. 3 hours. A continuation of WT 226 CAD for Wood Product Development, advancing the user level of AutoCAD. Exposure to 3-D modeling and other engineering software. Prerequisite: WT 226 CAD for Wood Product Development or GT 360 Computer Aided Drafting.

WT 333. Tool Technology. 3 hours. Basic machine maintenance, setup and adjustment, including electrical, lubrication, cleaning and precision measurement. Tooling materials and tooling for specific machines. Tool design and tooling variances related to wood species, chip load, quality of cut and manufacturing method.

WT 382. Construction Methods and Materials. 3 hours. Materials, methods, and equipment used in house construction, including location and excavation, foundation, framing, roofs, interior, and exterior finishes, insulation, and acceptable practices of assembly.

WT 383. Computer-Aided Manufacturing in Wood Technology. 3 hours. Focus on CAM software to develop CNC programs for the wood industry. Emphasis on manual programming, tooling considerations, speed and feed rates, post-processors and transferring data from CAD, CAM and CNC.

WT 399. Wood Technology Professional Development. 2 hours. Preparation of students for employment in wood technology internships and full-time positions. Emphasis is placed on academic planning, certification opportunities and procedures, resume content, job search skills, job interview, business etiquette, time management and goal setting. Prerequisite: Permission of instructor.

WT 400. Wood Internship (____). 3-6 hours. A planned work experience in a wood industry or business. The student will be employed by a wood industry or business, and both parties will submit reports and evaluations of experiences to the department coordinator. May be repeated for up to six credit hours. Offered on a Pass/Fail basis only. Prerequisite: Permission of instructor.

WT 403. Current Topics in Wood Technology (____). 1-3 hours. Current technical and managerial topics related to wood business and industry are presented. Guest lecturers and presenters from industry may be utilized. May be repeated if subject matter is different for a maximum of nine credit hours. Prerequisite: Permission of instructor.

WT 412. Overlay and Laminate Materials. 3 hours. Characteristics, processes, applications of decorative laminates and other overlay materials utilized in wood industries. Emphasis on overlays, adhesives, substrates, and fabrication techniques. Industrial applications and trade standards for materials and products manufactured. Prerequisite: WT 282 Machine Woodworking or permission of instructor.


WT 454. CNC Application for Wood Industry. 3 hours. Learn the use of CNC routers emphasizing manufacturing methods found in the wood industry. Use of 3 axis and 5 axis routers to construct projects. Prerequisites: WT 383 Computer-Aided Manufacturing in Wood Technology.

WT 511. Production Techniques in Woods. 3 hours. Explorations of various techniques used in mass production. Analyze plant layouts, selection and justification of equipment and evaluate production processes, through group production project. Prerequisites: WT 454 CNC Application for Wood Industry and WT 426 Millwork and Casework. May be taken for honors.

WT 523. Computer Applications in Cabinetmaking. 3 hours. Applications of computer software in the cabinetmaking industry. Setup and use of popular computer software used in the manufacture of kitchen cabinets. Applications of such software as applied to custom furniture design and CNC applications. Corequisite: WT 525 Cabinets and Fixtures.

WT 525. Cabinets and Fixtures. 3-5 hours. Practical production problems involving contemporary materials and production techniques used in cabinet fixtures. Planning, layout and design, terminology, estimating, production sequence, types of construction, surface decorations, plastic laminates and installations. Prerequisites: WT 282 Machine Woodworking and WT 301 Finishing. May be taken for honors.

WT 585. Wood Production Estimating. 3 hours. Survey of the estimating techniques commonly used by secondary wood product manufacturers with emphasis on computer applications. Prerequisites: WT 380 Production Techniques in Woods.

WT 602. Manufacturing Facility Maintenance and Management. 3 hours. A study of manufacturing facility systems. Management of maintenance programs and personnel. Design, inspection, and maintenance of electrical, pneumatic, hydraulic, and environmental systems. The wood manufacturing industry is the primary focus of this course. Prerequisite: WT 333 Tool Technology. May be taken for honors.

WT 682. Residential Construction Software: Planning and Management. 3 hours. Residential construction computer software applications for creating architectural drawings, and doing project planning, scheduling, and estimating. Prerequisites or corequisites: WT 382 Construction Methods and Materials or permission of instructor.

WT 691. Furniture Design and Development. 3 hours. (2 hours lecture, 2 hours laboratory). Study of the design phase (both historical and futuristic) of furniture design. Design prototypes, create conceptual drawings of furniture, develop and interpret sets of production drawings. May be taken for honors.

WT 692. Furniture Manufacturing. 3-5 hours. Development, fabrication and finish a prototype piece of furniture. Prerequisites: WT 691 Furniture Design and Development and WT 511 Production Techniques in Woods. May be taken for honors.

WT 699. Wood Technology Senior Seminar. 1 hour. A capstone wood course simulating situations students encounter in employment and assessment of personal, professional, and technological competencies. Authentic assessments such as portfolios will be used. Prerequisite: Senior or second semester junior standing.

WT 780. Wood Industries Seminar. 3-6 hours. The American Woodworking Industries: products, processes, and organization. Individual reports and group discussions of the problems current to this topic. Prerequisite: 9 hours in woodworking or permission of the instructor.

WT 795. Special Topics in Wood Technology (____). 1-3 hours. Selected topics in wood technology. Regularly scheduled classroom and laboratory study pertaining to a distinct body of technical knowledge. May be repeated if subject matter is different. May be taken on a pass-fail basis.
Faculty and Staff

For the most up to date contact information use the online directory.

*Has an earned doctorate.

Adams, Allison, Student Accommodations Coordinator, University Counseling Services. B.A., University of Arkansas; M.S., Pittsburg State University.

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