



# Pittsburg State University

## College of Technology Program Guide

Degree: Bachelor of Science in Engineering Technology

Major: Electronics Engineering Technology

Emphasis/Option: Electronic Embedded Systems, Telecommunications, Aerospace Electronics, Controls, Custom

Accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

As of Fall 2015

### 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 540: Electronic Design Proposal .....	3
EET 546: Electronic Controls .....	3
EET 640: Application Design Problems .....	2
EET 641: Electric Power .....	3
EET 642: Electronic Technology Seminar .....	1

### Support Courses (29 hours)

MECET 121: Engineering Graphics I .....	3
ETECH 502: Engineering Economy .....	3
ETECH 694: Engineering Technology Lab 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

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)  
ETECH 694 Engineering Technology Laboratory Internship must  
be taken for 1 hour.

### One Required Emphasis (12 hours)

#### Electronic Embedded Systems Emphasis

EET 449: Programmable Logic Devices .....	3
EET 549: Applied Microcontrollers .....	3
EET 647: Digital Signal Processing .....	3
An additional course chosen from another Electronics	
Engineering Technology emphasis area .....	3

#### 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 Electronics	
Engineering Technology emphasis area .....	3

### 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 Electronics	
Engineering Technology emphasis area .....	3

### Controls Emphasis

EET 340: Introduction to Industrial Automation .....	3
EET 646: Control Systems .....	3
EET 649: Advanced Programmable Logic Controllers .....	3
An additional course chosen from another Electronic	
Engineering Technology emphasis area .....	3

### Custom Emphasis

6 hours chosen from other emphases options  
6 hours upper division electives with advisor's consent

### Approved Electives Selected From (9 hours)

CIS 230: Visual Basic Programming .....	3
CIS 345: Object Oriented Programming Using Java .....	3
CIS 470: Computer Networking .....	3
CMCET 331: Electrical Systems .....	3
EET 644: Renewable Power Conversion .....	3
ETECH 300: Cooperative Education (____) .....	3-6
MATH 212: Matrix Algebra .....	2
MATH 513: Discrete Structures .....	3
MATH 543: Probability and Statistics .....	3
MATH 553: Differential Equations .....	3
MATH 569: Numerical Analysis .....	3
MATH 617: Linear Algebra .....	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
MGMKT 330: Basic Marketing .....	3
PHYS 512: Electricity and Magnetism I .....	3
PHYS 516: Modern Physics I .....	3
PHYS 532: Electronic Circuits I .....	3
PHYS 743: Solid State Electronics .....	3
or Upper division courses from the following: Mathematics, Physics, others by consent of advisor.	

In order to meet the requirements of the Engineering Technology  
Accreditation Commission of ABET, <http://www.abet.org>., partial waivers  
for the Pittsburg State University 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.

## GENERAL EDUCATION REQUIREMENTS

(42-46 hrs.)

### 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

### Sciences 9-10 hours

Natural Sciences ( <i>Select one</i> )			
BIOL	111/112	General Biology and Laboratory.....	5
BIOL	113	Environmental Life Science.....	4
BIOL	211	Principles of Biology I.....	4
Physical Sciences ( <i>Select one</i> )*			
PHYS	100	College Physics I.....	4
or PHYS	104	Engineering Physics I.....	4
PHYS	130	Elementary Physics Laboratory I.....	1
PHYS 104 Engineering Physics I is preferred.			

### Social Studies 3 hours

SOC	100	Introduction to Sociology.....	3
WGS	200	Introduction to Women's Studies.....	3

### Political Studies (*Select one*) 3 hours

POLS	101	U.S. Politics.....	3
POLS	103	Comparative Political Institutions.....	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 Syst.....	3

### Fine Arts and Aesthetic Studies/Cultural Studies

(*Select one*) ..... 2-3 hours

ANTH	101	Introduction to Cultural Anthropology.....	3
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	Introduction to Art History I.....	3
ART	289	Introduction to Art History II.....	3
ART	311	Art Education.....	3
ART	351	Printmaking, Papermaking, Bookarts and the Letterpress.....	3
ART	430	Automotive: Art and Design.....	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.....	3
MLL	124	French Language and Culture I.....	3
MLL	154	Spanish Language and Culture I.....	3
MLL	184	Russian Language and Culture I.....	3
MLL	194	Korean Language and Culture I.....	3
GEOG	106	World Regional Geography.....	3
GEOG	300	Elements of Geography.....	3
GEOG	304	Human Geography.....	3
WGS	399	Global Women's Issues.....	3

### Health and Well Being 4-6 hours

Psychological			
PSYCH	155	General Psychology.....	3
Physical ( <i>Select one</i> )			
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 3 hours

(*Select one from one 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	120	Literature and Film.....	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	207	Critical Thinking.....	3
PHIL	208	Logic.....	3
PHIL	231	World Religions.....	3

Notes \*For Physical Sciences, PHYS 104 Engineering Physics I is preferred.

NOTE: The information contained herein is intended to be used for the planning of a student's academic program and does not constitute a contract. While this guide was prepared with the latest information, courses, graduation requirements, and curricula are subject to change.

When a student attains 85 semester hours of credit (including current enrollment) the student must apply for a degree check in the Office of the Registrar (Degree Checking Section), Room 102 Russ Hall.

**MINIMUM GENERAL REQUIREMENTS:** The minimum requirements for graduation include 124 semester hours of which 60 hours must be from a four year university. In addition, 45 semester hours must be upper division and 30 hours in residence at PSU (including 24 of the last 30). Minimum GPA for non-education degree is 2.0 overall [2.0 in major], secondary education degree is 2.5 overall [2.75 in major], and early/late childhood/unified degree is 2.80 overall [3.0 in major]. A minimum GPA of 2.0 in any minor and in residence coursework is required. General Education and all degree requirements are provided in the online catalog. Refer to individual departments for specific requirements.