



Pittsburg State University  
**College of Arts and Sciences Program Guide**

Degree: Bachelor of Science in Education  
 Major: Physics  
 Emphasis/Option:  
 Minor (if required):

As of Fall 2017

**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

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
or PHYS 131: Elementary Physics Laboratory II .....	1
PHYS 160: Physical Geology .....	3
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

One additional upper-division physics course (3 hours)

# GENERAL EDUCATION REQUIREMENTS

**(46-52 hrs.)**

<b>Basic Skills</b>		<b>12-13 hours</b>
COMM	207	Speech Communication ..... 3
ENGL	101	English Composition..... 3
ENGL	190	Honors English Composition ..... 3
OR ENGL	299	Introduction to Research Writing ..... 3
<b>Mathematics (Select one)</b>		
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
<b>Sciences</b>		<b>8-9 hours</b>
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> )		
CHEM	105/106	Introductory Chemistry and Laboratory..... 4
CHEM	107/108	Chemistry for Life Sciences and Laboratory .... 4
PHYS	160/165	Physical Geology and Laboratory ..... 4
PHYS	166/167	Meteorology and Laboratory..... 4
PHYS	171/172	Physical Science and Laboratory ..... 4
PHYS	175/176	Descriptive Astronomy and Laboratory..... 4
PHYS	375/176	Solar System Astronomy and Laboratory ..... 4
<b>Social Studies</b>		<b>3 hours</b>
SOC	100	Introduction to Sociology ..... 3
WGS	200	Introduction to Women's Studies ..... 3
<b>Political Studies (Select one)</b>		<b>3 hours</b>
POLS	101	U.S. Politics ..... 3
POLS	103	Comparative Political Institutions..... 3
<b>Producing and Consuming</b>		<b>5-6 hours</b>
<i>(Select one from two of the following three categories)</i>		
Economy		
ECON	191	Issues in Today's Economy ..... 3
FCS	230	Consumer Ed. and Personal Finance ..... 3
Technology		
EET	247	Computer Programming for Electronic Sys. .... 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
MGT	101	Introduction to Business ..... 3
MGT	105	Introduction to Entrepreneurship..... 3
<b>Fine Arts and Aesthetic Studies (Select one)</b>		<b>2-3 hours</b>
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

<b>Cultural Studies (Select one)</b>		<b>3 hours</b>
ANTH	101	Introduction to Cultural Anthropology..... 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

<b>Health and Well Being</b>		<b>4-6 hours</b>
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

<b>Human Heritage</b>		<b>6 hours</b>
<i>(Select one from two of the following three categories)</i>		
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	112	Biomedical Ethics..... 3
PHIL	113	Business Ethics..... 3
PHIL	114	Environmental Ethics..... 3
PHIL	207	Critical Thinking ..... 3
PHIL	208	Logic and Critical Thinking ..... 3
PHIL	231	World Religions..... 3

Notes

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.