

Pittsburg State University

College of Arts and Sciences Program Guide

Degree: Bachelor of Science

Major: Physics

Emphasis/Option: Professional

Minor (if required):

As of Fall 2014

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)

** MATH 150, CIS 230 or CIS 240, 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	

(b) Other

CHEM 215: General Chemistry I	3
and CHEM 216: General Chemistry I Laboratory	
CHEM 225: General Chemistry II.	3
and CHEM 226: General Chemistry II Laboratory	
MATH 150: Calculus I	5
CIS 230: Visual Basic Programming	3
or CIS 240: C ++ Programming	3

Professional Emphasis (38 hours)

(a) Physics

PHYS 104: Engineering Physics I	4
and PHYS 130: Elementary Physics Laboratory I	
PHYS 105: Engineering Physics II	4
and PHYS 132: Engineering Physics Laboratory II	
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.

GENERAL EDUCATION REQUIREMENTS (30-37 hrs.)			
Basic Skill COMM ENGL ENGL OR ENGL Sciences	207 101 190 299 ence	Speech Communication English Composition Honors English Composition Introduction to Research Writing (Select one) 112 General Biology and Laboratory Environmental Life Science	3 3 4-5 hours
BIOL Social Stud	211 dies 100	Principles of Biology I	3 hours
Political St	tudie		3 hours
Producing	and	Consuming	2-3 hours
(Select one Economy	e fron	n two of the following three categories	:)
ECON FCS Technology		Issues in Today's Economy Consumer Ed. and Personal Finance	
EET GT GT EDTH TE TM	247 190 350 330 551	Computer Programming for Electronic Introduction to Technological System Technology and Civilization	s2 3 3
Fine Arts a ART	155 178 188 217 222 233 244 266 277 288 289 311 105 205 295 250 151		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Cultural St MLL MLL	114	s (Select one) Chinese Language and Culture I French Language and Culture I	

MLL MLL GEOG GEOG GEOG WOMEN Health and Psychologi	184 194 106 300 304 399 d We	Spanish Language and Culture I	5
PSYCH	155	General Psychology	3
Physical (S	Selec	t one)	
FCS FCS		Nutrition and Health Nutrition	
HHP	150	Lifetime Fitness Concepts	1
NURS	303	Introduction to Public Health	3
Human He	eritag	e	6 hours
(Select one History HIST HIST	101	world History to 1500	3
HIST	201	American History to 1865.	
HIST	202	American History from 1865	3
Literature ENGL		General Literature	
ENGL		General Literature(Genre)	
ENGL	116	General Literature(Theme)	3
ENGL		Mythology	
ENGL		Literature and Film	3
Philosophy	1	La La Cara Dia	
PHIL PHIL	103	Introduction to Philosophy	3
PHIL	111	Ethics: Applied Emphasis()	د
PHIL	112	Biomedical Ethics	3
PHIL		Business Ethics	
PHIL	114	Environmental Ethics	3
PHIL	207	Critical Thinking	3
PHIL PHIL		Logic World Religions.	

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.