



# Pittsburg State University College of Arts and Sciences Program Guide

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

As of Fall 2017

## **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

### **(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
or PHYS 101: College Physics II .....	4
and PHYS 131: Elementary 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.

# GENERAL EDUCATION REQUIREMENTS

(47-54 hrs.)

## 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

Must have a "C" or better in each of these Basic Skill courses.

## Sciences 4-5 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

## Social Studies (Select one) 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 5-6 hours

(Select one from two of the following three categories)

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

## 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	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

## Cultural Studies (Select one) 3 hours

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

## 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 6 hours

(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 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.....	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.