

- Minimum 30 of the last 60 credits earned at PennWest.
- Minimum of 30 major credits must be completed at PennWest or a State System (PASSHE) university.
- Minimum Total of 42 Credits in Advanced Coursework.

General Education

Foundations: (12 Credits)

Oral Communication (3 Credits)

- ☐ Any Course

Quantitative Reasoning (3 Credits)

- ☐ MATH 2320 Essentials of Calculus ~Or~ MATH 2410 Calculus I

Technological Literacy (3 Credits)

- ☐ Any Course

Written Communication (3 Credits)

- ☐ ENGL 1200 - College Composition

Discoveries: (Credits 27)

At least two (2) disciplines must be represented within each of the three (3) categories.

Art/Humanities (9 Credits)

- ☐ _____
☐ _____
☐ _____

Natural Sciences & Technology (9 Credits)

- ☐ CHEM 1108 General Chemistry I
☐ CHEM 1128 General Chemistry II
☐ _____

Social Sciences (9 Credits)

- ☐ _____
☐ _____
☐ _____

Elective/Wellness & Personal Health: (3 Credits)

- ☐ STAT 2020 Elements of Statistics

Competencies:

Applied Methodologies

- ☐ _____

Ethical Reasoning

- ☐ _____

Information Literacy

- ☐ _____

Intercultural Fluency

- ☐ _____

Keystone Experience

- ☐ _____

Quantitative Applications

- ☐ _____

Writing Intensive - Two (2) courses are required

- ☐ BIOL 3326 General Microbiology
☐ _____

Program Requirements

Required Major Courses: (47 Credits)

- ☐ BIOL 1400 Ecology & Evolution
☐ BIOL 1900 Intro to Cellular & Molecular Biology
☐ BIOL 2202 Genetics
☐ BIOL 3326 General Microbiology
☐ BIOL 3330 Cell Biology
☐ BIOL 4320 Molecular Biology
☐ BIOL 4260 Cell Physiology
☐ PHYS 1500 General Physics I
☐ PHYS 1510 General Physics I Laboratory
☐ PHYS 1600 General Physics II Lecture
☐ PHYS 1610 General Physics II Laboratory
☐ CHEM 2200 Organic Chemistry I Lecture
☐ CHEM 2205 Organic Chemistry I Laboratory
☐ BIOL 4985 Biotechnology and DNA Technology
☐ BIOL 4999 Research in Biology

Related Elective Courses: (13 Credits)

- ☐ Any 3000 or 4000 BIOL Course
☐ ~Or~ CHEM 2250 Organic Chemistry II
☐ ~Or~ CHEM 4600 Biochemistry I
☐ ~Or~ CHEM 4605 Biochemistry I Lab

Free Electives: (18 Credits)

- ☐ _____
☐ _____
☐ _____
☐ _____
☐ _____
☐ _____

Suggested Four Year Course Sequence

Year 1

Fall Semester

BIOL 1400 Ecology & Evolution
ENGL 1200 College Composition
CHEM 1108 General Chemistry I
Free Elective Course

Spring Semester

BIOL 1900 Intro to Cellular & Molecular Biology
CHEM 1128 General Chemistry II
Social Science Course
Tech Literacy Course
Free Elective Course

Year 3

Fall Semester

BIOL 3326 Microbiology
BIOL 4320 Molecular Biology or Related Elective
PHYS 1500 General Physics I
PHYS 1510 General Physics I Laboratory
Free Elective Course

Spring Semester

BIOL 4835 Biotechnology and DNA Technology
~Or~ Related Elective Course
BIOL 4320 Molecular Biology or Related Elective
PHYS 1600 General Physics II
PHYS 1610 General Physics II Laboratory
Social Science Course

Year 2

Fall Semester

BIOL 2202 Genetics
~Or~ BIOL 3330 Cell Biology
CHEM 2200 Organic Chemistry I Lecture
CHEM 2205 Organic Chemistry I Laboratory
Arts & Humanities Course
STAT 202 Elements of Statistics

Spring Semester

BIOL 2202 Genetics or BIOL 3330 Cell Biology
MATH 2320 Essentials of Calculus
~Or~ MATH 2410 Calculus I
COMJ 1010 Public Speaking
Arts & Humanities Course
Free Elective Course

Year 4

Fall Semester

BIOL 4835 Biotechnology and DNA Technology
~Or~ Related Elective Course
BIOL 4260 Cell Physiology
BIOL 4999 Research
~Or~ Related Elective
Free Elective Course

Spring Semester

BIOL 4999 Research
~Or~ Related Elective Course
Related Elective Course
Natural Sci & Tech Course
Arts & Humanities Course
Social Science Course
Free Elective Course

