

- 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)

- ☐ COMJ 1010 Public Speaking

Quantitative Reasoning (3 Credits)

- ☐ MATH 1410 Pre-Calculus

Technological Literacy (3 Credits)

- ☐ _____

Written Communication (3 Credits)

- ☐ ENGL 1200 - College Composition

Discoveries: (Credits 28)

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

Art/Humanities (9 Credits)

- ☐ ENGL 2230 Writing and the Natural Sciences

- ☐ _____

- ☐ _____

Natural Sciences & Technology (10 Credits)

- ☐ CHEM 1108 General Chemistry I

- ☐ PHYS 1500 General Physics I

- ☐ _____

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

- ☐ BIOL 4480, BIOL 4951, BIOL 4985, or BIOL 4999

Quantitative Applications

- ☐ _____

Writing Intensive - Two (2) courses are required

- ☐ BIOL 3326 General Microbiology

- ☐ BIOL 3330 Cell Biology

Program Requirements

Required Major Courses: (16 Credits)

- ☐ BIOL 1400 Intro to Ecology and Evolution
- ☐ BIOL 1700 Intro to Organismal Biology
- ☐ BIOL 1900 Introduction to Cell and Molecular Biology
- ☐ BIOL 2202 Genetics

Related Concentration Courses: (25 Credits)

- ☐ BIOL 3326 General Microbiology
- ☐ BIOL 3330 Cell Biology
- ☐ BIOL 3500 Comparative Vertebrate Anatomy
- ☐ ~Or~ BIOL 2810 and 2811 Human A&P I
- ☐ BIOL 4860 Comparative Animal Physiology
- ☐ ~Or~ BIOL 3810 and 3811 Human A&P II
- ☐ CHEM 1128 General Chemistry II
- ☐ CHEM 2200 Organic Chemistry I Lecture
- ☐ CHEM 2205 Organic Chemistry I Lab
- ☐ PHYS 1510 General Physics I Lab

Concentration Elective Courses: (Up to 19 Credits)

Any 3000-4000 level BIOL, FWSC, VETT, ANTH course or CHEM 2250/2255 Organic Chemistry II or CHEM 4600/4605 Biochemistry and One or More of the Following: BIOL 4480 Topics in Field Biology or BIOL 4951 Internship in Biology or BIOL 4985 Biotechnology and DNA Methods or BIOL 4999 Research in Biology

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

Free Electives: (17 Credits)

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

Program Notes:

Biochemistry is highly recommended as it is required by most veterinary schools. If you take Organic Chemistry II and Biochemistry, that will also allow the student to apply for a chemistry minor

Suggested Four Year Course Sequence

Year 1

Fall Semester

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

Spring Semester

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

Year 2

Fall Semester

BIOL 1900 Intro to Cellular & Molecular Biology
CHEM 2200 Organic Chemistry I Lecture
~And~ CHEM 2205 Organic Chemistry I Laboratory
BIOL 2010 Intro to Bioethics
~Or~ PHIL 3220 Biomedical Ethics
COMJ 1010 Public Speaking

Spring Semester

BIOL 2202 Genetics
~Or~ BIOL 3326 Microbiology
MATH 1410 Pre-calculus
Social Science
Any Course
Arts & Humanities

Year 3

Fall Semester

BIOL 3500 Comparative Vertebrate Anatomy
~Or~ BIOL 2810 Anatomy & Physiology I Lecture
~And~ BIOL 2811 Anatomy & Physiology I Lab
BIOL 3326 Microbiology
~Or~ BIOL 2202 Genetics
PHYS 1500 General Physics I
~And~ PHYS 1510 General Physics I Laboratory
STAT 202 Elements of Statistics

Spring Semester

BIOL 4860 Comparative Animal Physiology
~Or~ BIOL 3810 Anatomy & Physiology II Lecture
~And~ BIOL 3811 Anatomy & Physiology II Lab
Related Elective
Related Elective
Arts & Humanities

Year 4

Fall Semester

BIOL 3330 Cell Biology
~Or~ Related Elective
Related Elective
Social Science
Any Course
Any Course

Spring Semester

BIOL 4999 Research in Biology
Related Elective & Natural Sci & Tech
Arts & Humanities
Any Course

