# **BIOLOGY, B.S. (ALTOONA)**

Begin Campus: Any Penn State Campus

End Campus: Altoona

# **Suggested Academic Plan**

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2023-24 academic year. To access previous years' suggested academic plans, please visit the archive (https:// bulletins.psu.edu/undergraduate/archive/) to view the appropriate Undergraduate Bulletin edition (Note: the archive only contains suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin).

### General Biology Option: Biology, B.S. at Altoona Campus

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

#### First Year

Fall	Credits Spring	Credits
BIOL 110*#	4 BIOL 220W or 240W*	4
CHEM 110*#†	3 CHEM 112*†	3
CHEM 111 <sup>†</sup>	1 CHEM 113 <sup>†</sup>	1
MATH 140B or 140*#†	4 MATH 141B or 141	4
PSU 3	1 ENGL 15, 30H, or ESL 15 <sup>‡</sup>	3
General Education Course	3	
	16	15

#### Second Year

Fall	Credits Spring	Credits
BIOL 230W <sup>*</sup>	4 BIOL 220W or 240W*	4
CHEM 202 or 210 (see adviser for alternative)	3 CHEM 203 (or (CHEM 212 and CHEM 213))	3-5
STAT 200 or 250 <sup>‡</sup>	4 CAS 100 <sup>‡</sup>	3
General Education Course	3 General Education Course	3
Elective Course or Supporting Course	1 General Education (GHW)	1.5

.5

HIIIu	reai
Fall	

Fall	<b>Credits Spring</b>	Credits
Biology 400-level Selection (consult with an academic adviser for options)	3 PHYS 251 (see adviser for alternative)	4
PHYS 250 (see adviser for alternative)	4 Biology 400-level Selection (consult with an academic adviser for options)	3
General Education Course	3 Elective Course or Supporting Course	3
Elective Course or Supporting Course	2-4 General Education Course	3

Elective Course or	3 Elective Course or	3
Supporting Course	Supporting Course	
	15-17	16
Fourth Year		
Fall	Credits Spring	Credits
Biology 400-level Selection (consult with an academic adviser for options)	3 Biology 400-level Selection (consult with an academic adviser for options)	3
Biology 400-level Selection (consult with an academic adviser for options)	3 Biology 400-level Selection (consult with an academic adviser for options)	3
ENGL 202C	3 General Education Course	3
Elective Course or Supporting Course	3 Elective Course or Supporting Course	3
Elective Course or Supporting Course	3-4 Elective Course or Supporting Course	4
General Education Course (GHW)	1.5	
1	6.5-17.5	16

#### Total Credits 124-129

- \* Course requires a grade of C or better for the major
- ‡ Course requires a grade of C or better for General Education
- # Course is an Entrance to Major requirement
- † Course satisfies General Education and degree requirement

#### **University Requirements and General Education Notes:**

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

# Vertebrate Physiology Option: Biology, B.S. at Altoona Campus

The course series listed below provides **only one** of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an **Academic Requirements** or **What If** report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

#### First Year

Fall	Credits Spring	Credits
BIOL 110*#	4 BIOL 220W or 240W*	4
CHEM 110*#†	3 CHEM 112*†	3
CHEM 111 <sup>†</sup>	1 CHEM 113 <sup>†</sup>	1
MATH 140B or 140*#†	4 MATH 141B or 141	4
PSU 3	1 ENGL 15, 30H, or ESL 15 $^{\ddagger}$	3
General Education Course	3	
	16	15

#### **Second Year**

Fall	Credits Spring	Credits
BIOL 230W <sup>*</sup>	4 BIOL 220W or 240W*	4
CHEM 210	3 CHEM 212 & CHEM 213	5
STAT 200 or 250	4 CAS 100 <sup>‡</sup>	3
General Education Course	3 General Education Course	3
Elective Course or Supporting Course	1 General Education Course (GHW)	1.5
	Elective Course or	1
	Supporting Course	
	15	17.5

#### **Third Year**

Tima Tear		
Fall	<b>Credits Spring</b>	
BIOL 472	3 Biology 400-level Selection (consult with an academic adviser for options)	3
BIOL 473	2 Biology 400-level Selection (consult with an academic adviser for options)	3
PHYS 250 (see adviser for alternative)	4 PHYS 251 (see adviser for alternative)	4
General Education Course	3 Elective Course or Supporting Course	3
Elective Course or Supporting Course	3 General Education Course	3
	General Education Course (GHW)	1.5
	15	17.5

#### Fourth Year

Fall	Credits Spring	Credits
BMB 401	3 BMB 402	3
Biology 400-level Selection (consult with an academic adviser for options)	3 Biology 400-level Selection (consult with an academic adviser for options)	3
ENGL 202C <sup>‡</sup>	3 General Education Course	3

	15-16	15-16
Elective or Supporting Course or Biology 400-level Selection (consult with an academic adviser for options)	3-4 Elective Course or Supporting Course	3
Elective Course or Supporting Course	3 Elective Course or Supporting Course	3-4

#### Total Credits 126-128

#### **University Requirements and General Education Notes:**

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

## **Ecology Option: Biology, B.S. at Altoona Campus**

The course series listed below provides **only one** of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an **Academic Requirements** or **What If** report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

First	Year
-------	------

Fall	Credits Spring	Credits
BIOL 110*#	4 BIOL 220W or 240W*	4
CHEM 110*#†	3 CHEM 112*†	3
CHEM 111 <sup>†</sup>	1 CHEM 113 <sup>†</sup>	1
MATH 140B or 140*#†	4 MATH 141B or 141 <sup>†</sup>	4
PSU 3	1 ENGL 15, 30H, or ESL 15 <sup>‡</sup>	3
General Education Course	3	
	16	15

#### **Second Year**

Fall	Credits Spring	Credits
BIOL 230W <sup>*</sup>	4 BIOL 220W or 240W*	4
CHEM 202 or 210	3 CHEM 203 (or (CHEM 212 and CHEM 213))	3-5
STAT 200 or 250	4 CAS 100 <sup>‡</sup>	3
General Education Course	3 General Education Course	3
Elective Course or Supporting Course	1 General Education Course (GHW)	1.5
	15	14.5-16.5

#### **Third Year**

Fall	Credits Spring	Credits
BIOL 463	3 PHYS 251 (see adviser for alternative)	4
PHYS 250 (see adviser for alternative)	4 STAT 462 or 464	3
General Education Course	3 Biology 400-level Selection (consult with an academic adviser for options)	3
Elective Course or Supporting Course	2-4 Elective Course or Supporting Course	3
Elective Course or Supporting Course	3 General Education Course	3
	General Education Course (GHW)	1.5
	15-17	17.5

#### Fourth Year

Fall	Credits Spring	Credits
Biology 400-level Course	3 Biology 400-level Selection (consult with an academic adviser for options)	3
Biology 400-level Selection (consult with an academic adviser for options)	3 Biology 400-level Selection (consult with an academic adviser for options)	3
ENGL 202C <sup>‡</sup>	3 General Education Course	3
Elective Course or Supporting Course	3 Elective Course or Supporting Course	3-4

15-16		15-16
Supporting Course	Supporting Course	
Elective Course or	3-4 Elective Course or	3

#### Total Credits 123-129

- \* Course requires a grade of C or better for the major
- ‡ Course requires a grade of C or better for General Education
- # Course is an Entrance to Major requirement
- † Course satisfies General Education and degree requirement

#### **University Requirements and General Education Notes:**

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.