

Botany, B.S.

Students interested in botany, or related fields, are strongly encouraged to earn at least a baccalaureate degree (BS). To be competitive in the job market additional post-baccalaureate education is suggested. The BS degree in Botany may be used for entry into a career or in preparation for graduate (Masters/ PhD) or professional schools (medical, pharmacy etc.).

Matriculation Requirements

1. BIOL 1610 College Biology I BB with C- or higher and approval of Biology Department adviser.

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		120
General Education Requirements		39 Credits
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC Literacies and Composition Across Contexts CC	3
ENGL 2010	Intermediate Academic Writing CC	3
MATH 1050 or MATH 1055	College Algebra QL College Algebra with Preliminaries QL	4
Complete one of the following:		3
HIST 2700 & HIST 2710	US History to 1877 AS and US History since 1877 AS (6)	
HIST 1700	American Civilization AS (3)	
HIST 1740	US Economic History AS (3)	
POLS 1000	American Heritage AS (3)	
POLS 1100	American National Government AS (3)	
Complete the following:		
PHIL 2050 or PHIL 205G	Ethics and Values IH Ethics and Values IH GI	3
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE Fitness for Life TE	2
Distribution Courses:		
BIOL 1610	College Biology I BB	4
CHEM 1210	Principles of Chemistry I PP	4
CHEM 1220	Principles of Chemistry II PP	4
Humanities Distribution		3
Fine Arts Distribution		3
Social/Behavioral Science		3
Discipline Core Requirements		63 Credits
BIOL 1615	College Biology I Laboratory	1
BIOL 1620	College Biology II	3
BIOL 1625	College Biology II Laboratory	1
BIOL 3400	Cell Biology	3
BIOL 3500	Genetics	3
BIOL 4500	Principles of Evolution WE	3
BIOL 492R	Professional Development	1
BIOL 497R	Biology Colloquium (0.5 cr, two required)	1
BIOL 4940	Student Seminar WE	2
BOT 2100 or BOT 2050	Flora of Utah BB Field Botany BB	3
BOT 2400	Plant Kingdom BB	4

BOT 4050	Plant Ecology	3
BOT 4055	Plant Ecology Laboratory	1
BOT 4100	Plant Anatomy	4
BOT 4200	Plant Systematics	3
BOT 4300	Native Trees and Shrubs of Utah	3
or BOT 4500	Introduction to Grasses	
BOT 4600 & BOT 4605	Plant Physiology WE and Plant Physiology Laboratory	4
CHEM 1215	Principles of Chemistry I Laboratory	1
CHEM 1225	Principles of Chemistry II Laboratory	1
CHEM 2310	Organic Chemistry I	4
CHEM 2315	Organic Chemistry I Laboratory	1
Complete one of the following:		4
STAT 2040	Principles of Statistics QL (4)	
MATH 1060 & MATH 1210	Trigonometry QL and Calculus I QL (7)	
MICR 3450 & MICR 3455	General Microbiology and General Microbiology Laboratory	4
PHYS 2010	College Physics I PP	4
PHYS 2015	College Physics I Lab	1
Elective Requirements		18
		Credits
Additional credits to meet credit and upper-division requirements ¹		18

¹ENVT 2630 and ENVT 3630 are suggested electives. BOT 3340 cannot count for credit towards the Botany degree.

Graduation Requirements

1. Complete the required minimum 120 credit hours.
2. Completion of GE and specified departmental requirements.
3. If an AA or AS degree has been earned, a maximum of 64 of these credits may apply toward the BS.
4. At least 30 credit hours in residence at UVU or satellite sites are required, with 10 hours earned during the last 45 hours.
5. A minimum of 40 credits must be upper-division (numbered 3000 or above).
6. A minimum of 40 credits must be in the Biology Department (BIOL, BOT, BTEC, MICR, or ZOOL prefixes), 30 of which must be upper-division. A minimum of nine Biology Department credits must be taken at UVU.
7. Complete discipline core courses with a grade of "C-" or higher in each course.
8. Except for 490R Special Topics courses, a maximum cumulative total of 9 credits in any combination of upper division Departmental courses with an "R" designation may count toward graduation.
9. Achieve a minimum overall GPA of 2.0 with a minimum GPA of 2.25 in Biology Department courses.
10. Complete the appropriate application for graduation form.
11. Successful completion of at least one Global/Intercultural course.
12. Successful completion of two writing enriched (WE) courses.

Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (<http://www.uvu.edu/wolverinetrack/>).

First Year		
Semester 1		Credit Hours
MATH 1050 or MATH 1055	College Algebra QL or College Algebra with Preliminaries QL	4
Social/Behavioral Science		3
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC or Literacies and Composition Across Contexts CC	3
Fine Arts		3
Credit Hours		13

Semester 2

BIOL 1610	College Biology I BB	4
BIOL 1615	College Biology I Laboratory	1
Complete one of the following:		4
STAT 2040	Principles of Statistics QL	
MATH 1060 & MATH 1210	Trigonometry QL and Calculus I QL	
ENGL 2010	Intermediate Academic Writing CC	3
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE or Fitness for Life TE	2
Credit Hours		14

Second Year**Semester 3**

BIOL 1620	College Biology II	3
BIOL 1625	College Biology II Laboratory	1
CHEM 1210	Principles of Chemistry I PP	4
CHEM 1215	Principles of Chemistry I Laboratory	1
BIOL 3500	Genetics	3
American Institutions		3
Credit Hours		15

Semester 4

BOT 2400	Plant Kingdom BB	4
CHEM 1220	Principles of Chemistry II PP	4
CHEM 1225	Principles of Chemistry II Laboratory	1
Humanities		3
Elective		3
Credit Hours		15

Third Year**Semester 5**

PHIL 205G	Ethics and Values IH GI	3
BOT 4050	Plant Ecology	3
BOT 4055	Plant Ecology Laboratory	1
CHEM 2310	Organic Chemistry I	4
CHEM 2315	Organic Chemistry I Laboratory	1
BIOL 497R	Biology Colloquium	0.5
Elective		3
Credit Hours		15.5

Semester 6

BOT 4100	Plant Anatomy	4
PHYS 2010	College Physics I PP	4
PHYS 2015	College Physics I Lab	1
BIOL 3400	Cell Biology	3
BIOL 497R	Biology Colloquium	0.5
Elective		3
Credit Hours		15.5

Fourth Year**Semester 7**

BOT 4600	Plant Physiology WE	3
BOT 4605	Plant Physiology Laboratory	1
BOT 4300	Native Trees and Shrubs of Utah	3
Elective		6
BIOL 4940	Student Seminar WE	2
BIOL 492R	Professional Development	1
Credit Hours		16

Semester 8

MICR 3450	General Microbiology	3
MICR 3455	General Microbiology Laboratory	1
BIOL 4500	Principles of Evolution WE	3
BOT 4200	Plant Systematics	3

Elective	6
Credit Hours	16
Total Credit Hours	120

Program Learning Outcomes

1. Apply the process of science through the use of hypothesis testing in the design and completion of scientific experiments.
2. Critically evaluate scientific information.
3. Quantitatively analyze scientific data through graph interpretation, statistical analysis, and problem solving.
4. Effectively communicate scientific information in both written and oral formats.
5. Explain fundamental biological concepts in botany including cell biology, genetics, evolution, ecological principles, organismal biology, and biodiversity.
6. Apply scientific concepts both across and outside of botany that demonstrate interdisciplinary understanding.