PLANT BIOLOGY, BACHELOR OF ARTS

College of Biological Sciences

As organisms that sequester carbon and convert solar energy into oxygen, sugar and other usable forms, plants are a primary source of food and myriad biomaterials on the planet, and function as an important buffer against climate change. The Plant Biology major focuses on fundamental aspects of how plants function as organisms, interact with their environment, and the use of this knowledge to address global challenges. A wide variety of scientific disciplines are integrated within the Plant Biology major, including physiology, cell and molecular biology, development, biochemistry and metabolism, genetics and genomics.

The Program

The Plant Biology Bachelor of Arts major consists of a biological sciences core covering the general principles of biology plus five plant-specific classes dealing with advanced aspects of plant biology including physiology, development, and anatomy. Electives allow students to tailor the degree to suit their interests. Independent research in a laboratory setting is a requirement, and majors in Plant Biology are guaranteed this opportunity. Because of the value of plants as a model system for research in molecular genetics, cell biology, and biochemistry, Plant Biology also can make an excellent minor or second major for students in these fields.

Career Alternatives

A degree in Plant Biology serves as an excellent launching point for a wide range of career options, including domestic and international opportunities in business, research, management, and teaching in both governmental and private sectors. The program is excellent preparation for students wishing to enter graduate or other professional schools, including medicine, law (particularly environmental or patent law) or journalism. Plant biologists can work in the laboratory, in the field, in the forest, in botanical gardens or nurseries, in agricultural companies, or in biotechnology, pharmaceutical, energy or chemical industries, or in the area of environmental protection.

Honors & Honors Programs

Students on the honors list may elect to include a maximum of 5 units of 194H in their major programs. For Dean's Honors List information, see the Honors & Prizes (https://catalog.ucdavis.edu/academic-information-policies-regulations/honors-prizes/) for the appropriate College section.

Faculty Advisor

Philipp Zerbe, Ph.D.

Graduate Study

Consult Plant Biology (Graduate Group) (https://catalog.ucdavis.edu/departments-programs-degrees/plant-biology-graduate-group/).

The major requirements below are in addition to meeting University Degree Requirements (https://catalog.ucdavis.edu/undergraduate-education/university-degree-requirements/) & College Degree Requirements (https://catalog.ucdavis.edu/undergraduate-education/college-degree-requirements/); unless otherwise noted. The minimum number of units required for the Plant Biology Bachelor of Arts is 76.

Code	Title	Units
Preparatory Subject Matter		
Biological Science		*15*
BIS 002A & BIS 002B & BIS 002C	Introduction to Biology: Essentials of Life on Earth and Introduction to Biology: Principles of Ecology & Evolution and Introduction to Biology: Biodiversity & the Tree of Life	
Chemistry		*10*
Choose the 002 series or 004 series:		
CHE 002A & CHE 002B	General Chemistry and General Chemistry	
OR		
CHE 004A & CHE 004B	General Chemistry for the Physical Sciences & Engineering and General Chemistry for the Physical Sciences & Engineering	
008 series:		6
CHE 008A & CHE 008B	Organic Chemistry: Brief Course and Organic Chemistry: Brief Course	
Choose one:		4
STA 013 or STA 013Y	Elementary Statistics Elementary Statistics	
STA 100	Applied Statistics for Biological Sciences	
PLS 120	Applied Statistics in Agricultural Sciences	
Recommended		
CHE 002C	General Chemistry	
OR		
CHE 004C	General Chemistry for the Physical Sciences & Engineering	
Preparatory Subject Matter Subtotal		35
Depth Subject Matter		
Biological Science		
BIS 101 or BIS 101V	Genes & Gene Expression Genes & Gene Expression	4
Plant Biology		
PLB/PLS 102	(Discontinued) [1]	5
OR		
PLB 108	(Discontinued) [1]	
OR		
EVE 108	(Discontinued) [1]	
PLB 105	Developmental Plant Anatomy	5
PLB 111	Plant Physiology	3
PLB 112	Plant Growth & Development	3
PLB 117	Plant Ecology	4
EVE 140 or PLB/PLS 116	Paleobotany (Discontinued) Plant Morphology & Evolution	4-5
Restricted Electives		
Choose additional upper division units in Plant Biology or related natural science courses from elective list via Plant Biology Bachelors of Science. Courses in other departments may be allowed upon prior consultation with a PLB faculty advisor.		13

	Plant Biology Bachelors of Science Electives list (https://catalog.ucdavis.edu/departments-programs-degrees/plant-biology/plant-biology-bs/#requirementstext)	
Recommended		
EVE 100	Introduction to Evolution	
PLB/PLP 148	Introductory Mycology	
Depth Subject Matter Subtotal		41-42
Total Units		**76-77**

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PLB/PLS 102, PLB 108, & EVE 108 are replaced by EVE/PLB/PLS 127.