

“W” Number: _____
 Student Name: _____
 Advisor Name: _____

Catalog: 2021-2022 University of Wyoming Catalog
 Program: Agroecology, B.S.

Agroecology, B.S.

The Department of Plant Sciences offers a Bachelor of Science degree in Agroecology jointly with the Ecosystem Science and Management Department, and three minors. Minors offered by Plant Sciences include Agroecology, Horticulture, and Plant Protection. The minor in Horticulture includes courses in plant propagation, organic food production, greenhouse design and management, and introductory horticulture. The minor in Plant Protection includes courses in agronomy, plant genetics, plant pathology, and weed science. These minors allow students within many bachelors programs to obtain an added emphasis in areas that enjoy strong employment opportunities.

A B.S. degree in agroecology prepares students for careers in agriculture, natural resources, environmental and life sciences and for advanced graduate studies in specific subdisciplines within these areas. It is a broad, interdisciplinary, undergraduate curriculum that combines and integrates courses in the crop, horticulture, disease, weeds, soil, and insect sciences and is supported by a science-based curriculum and general education. Flexibility is built into the agroecology curriculum to readily accommodate students seeking to pursue an emphasis or obtain a minor in a specific discipline. To that end the breadth of the curriculum is balanced with greater depth in biology, chemistry, crop science, entomology, environmental studies, natural resource management, soil science, plant pathology, weed science, horticulture, turf management, pre-veterinary medicine, rangeland ecology and watershed management, animal science, microbiology, and molecular biology. A liberal number of electives permits design of a program that best meets individual career and educational objectives. The agroecology program is well suited for students who possess a strong interest in, and an aptitude for, science, agriculture, the environment, life sciences, or natural resources.

The agroecology core curriculum is comprised of freshman- through senior-level courses that illustrate dynamic and complex interactions of plants, soils, and plant pests (diseases, insects, weeds) with the environment. Academic training is enhanced with experiential learning through research apprenticeships, internships, field studies, and special agroecology capstone courses. Special emphasis is given to development of critical thinking and communication skills, problem solving, and application of science. It is an interdisciplinary program designed to prepare students for “real world” situations.

Agroecology B.S. degree recipients are prepared for careers with private and public institutions and agencies in such areas as: agricultural consulting, production or sales, research, product development, education, extension education, international programs, and scientific and technological support. These careers include but are not limited to: soil scientist, conservationist, entomologist, consultant, plant scientist, integrated pest management specialist, ecologist, research associate or technician, agronomist, biotechnician, and agroecologist. Degree recipients are also prepared for graduate education in biological and environmental sciences.

The combined Plant Sciences B.S./M.S. Quickstart program enables highly-qualified students to be admitted to the M.S. program during the junior year of their B.S. program, and to work thereafter toward both the B.S. and M.S. degrees. Accepted students would earn a B.S. degree in either Agroecology or Rangeland Ecology and Watershed Management and the M.S. degree in Plant Sciences. Please see additional information under the Plant Sciences Graduate Study section or online at <http://www.uwyo.edu/plantsciences/>.

Course Requirements

Agroecology: 22 Hours

Course Name	Credits:	Term Taken	Grade	Gen Ed
AECL1000 - Agroecology	Credits: 4			
AECL3030 - Ecological Web: Ecology of Plant Protection	Credits: 3			
AECL4990 - Agroecology Seminar	Credits: 3			
SOIL2010 - Introduction to Soil Science	Credits: 4			
SOIL4140 - Soil Microbiology	Credits: 4			

4 Hours From a Combination of:

Course Name	Credits:	Term Taken	Grade	Gen Ed
AECL4920 - Topics in Agroecology: Research Apprenticeship	Credits: 1-2			
AECL4930 - Internship in Agroecology	Credits: 1-3			
AECL4960 - Agroecology Field Studies	Credits: 2			

Supporting Science Biology/Genetics: 25-26 Hours

Course Name	Credits:	Term Taken	Grade	Gen Ed
ENTO1000 - Insect Biology	Credits: 3			
OR				
ENTO1001 - Insect Biology	Credits: 3			
OR				
ANSC1010 - Introduction to Animal Science	Credits: 4			
AGEC1010 - Principles of Macroeconomics	Credits: 3			
OR				

AGEC1020 - Principles of Microeconomics	Credits: 3			
LIFE1010 - General Biology	Credits: 4			
LIFE2023 - Biology of Plants and Fungi	Credits: 4			
LIFE3400 - General Ecology	Credits: 3			
CHEM1000 - Introductory Chemistry	Credits: 4			
CHEM2300 - Introductory Organic Chemistry	Credits: 4			

Math/Statistics: 7 Hours

Course Name	Credits:	Term Taken	Grade	Gen Ed
MATH1400 - College Algebra	Credits: 3			
STAT2050 - Fundamentals of Statistics	Credits: 4			

Communications: 3 Hours

Course Name	Credits:	Term Taken	Grade	Gen Ed
COMM2010 - Public Speaking	Credits: 3			

Agriculture Science Electives: 9 Hours

Select 9 hours of upper division courses from those with the following course prefixes:

- ANSC (Animal Science)
- BOT (Botany)
- ENTO (Entomology)
- MICR (Microbiology)
- MOLB (Molecular Biology)
- PLNT (Plant Sciences)
- REWM (Rangeland Ecology and Watershed Management)
- SOIL (Soil Science)

Supporting Electives: 9 Hours

Select 9 hours of upper division courses from those with the following course prefixes:

- AGECE (Agricultural Economics)
- AECL (Agroecology)
- ANSC (Animal Science)
- BOT (Botany)
- CHEM (Chemistry)
- COJO (Communication and Journalism)
- ENR (Environment and Natural Resources)
- ENTO (Entomology)
- FDSC (Food Science)
- GEOG (Geography)
- GIST (Geospatial Information Science and Technology)
- LIFE (Life Sciences)
- MICR (Microbiology)
- MOLB (Molecular Biology)
- PATB (Pathobiology)
- PLNT (Plant Sciences)
- REWM (Rangeland Ecology and Watershed Management)
- SOIL (Soil Science)
- ZOO (Zoology and Physiology).

Additional

- Additional University Studies Credits: 12
- Electives (minimum) Credits: 33

Total: 120 Hours

Notes: