

Bachelor of Science:

(Currently 4 working titles) Agricultural Biology, Sustainable Plant Health, Plant and Ecosystem Health, or Agroecology

The department of Bioagricultural Sciences and Pest Management (BSPM) includes researchers who study **plant pathology, entomology, weed science, and abiotic plant stress**.

This program will give students access to a **comprehensive undergraduate program** in how these biotic stresses impact agricultural and natural systems.

Program coursework will provide graduates with:

- A solid foundation to solve problems related to plants, insects, and microbes in natural and managed ecosystems
- A framework to understand the social, economic, and biophysical aspects of the management of biological problems.
- Experiential opportunities to describe, assess, analyze, and synthesize knowledge and create solutions for plants, insects and microbes.
- Leadership and teambuilding skills to solve complex problems and communicate effectively with broad and diverse audiences
- A portfolio of soft skills preparing graduates for careers in agricultural and natural systems.

B.S. in Agricultural Biology

Evidence of Need/Demand

- **No other CSU major** prepares undergraduates with a **comprehensive understanding** of how biotic stress (weeds, microbes, arthropods) impact crop yields and natural ecosystems.
- Surveys of employers in agricultural industries consistently show that **employers seek broadly trained students who understand systems** rather than students with narrow training in specific disciplines.
- Similar programs are not offered at most peer institutions

Fit with Mission of Proposing Unit/College and CSU

- **Teaching excellence** is one of the core values of the department.
- With its **system-based approach to management of the health of agricultural and natural ecosystems** this program fits well with the land grant mission of our college and university.



B.S. in Agricultural Biology

Capacity of Proposing Unit(s) to Deliver the Degree

- BSPM has **22 faculty** in the department and **have the teaching resources** necessary to offer the courses needed for this program.
- **College-level advisors will assist students in the program.**

Estimated Curricular Impact on Other Units

- Do not anticipate that this major will be large enough to have a significant impact on other units that offer important introductory courses.

Estimated Additional Resources Needed

- **Four new courses** will be created
- Additional sections will be required for two current courses (Plant Pathology and Weed Science).
- BSPM has identified resources to **fund an additional TA.**

Proposed Funding Mechanism

- As the program of study draws extensively from existing coursework, we expect this degree program to fully fund itself through a blend of tuition sharing and differential tuition.

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Questions?

**Please Contact Dr. Amy Charkowski, Department head –
Bioagricultural Sciences and Pest Management.**

