

AG23 Introduction to Plant Science

Course Information

- Semester and Year: Spring 2026
- Course ID and Section number: AG-23-E9871
- Instructor's name: Luke A. Besmer
- Day and time of required meetings: Mondays & Wednesdays
- Location: Applied Technology, Room 108
- Course units: 3.00
- Recommended Textbook: Plant Science: Growth, Development, and Utilization of Cultivated Plants by McMahon, Margaret E. (9780135184820) - 6TH Edition (Older editions are acceptable)

Instructor Contact Information

- Office location or Online Applied Technology, Room 108
- Office hours: By appointment, or just after class.
- Phone number: 707-342-7354
- Email address: luke-besmer@redwoods.edu
- Communication notes: Alternative office hour meeting times can be set up to accommodate student schedule conflicts.

Catalog Description

Introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, fuel, and ornamental plants. Laboratory required.

Course Student Learning Outcomes

- Analyze the structure components of higher plants, their functional roles, and their economic values.
- Discuss and understand photosynthesis, respiration, translocation, and other important metabolic pathways.
- Describe sexual and asexual reproduction and how that applies to propagation in the agricultural setting.
- Discuss and understand nutrient deficiencies, pest issues, and their management.
- Utilize modern testing methods to gain information that can be used to make informed decisions in the field.

Course Calendar*

Week of	Topic	Lab
20-Jan	Plant Science Introduction	NA
26-Jan	Cells & Organelles	Microscopes/Osmosis/Cells
2-Feb	Flowers & Pollination	Flower Dissection & Pressing
9-Feb	Fruits & Dispersal	Fruit Dissection & Seed Saving

16-Feb	Short Week, Section Revue & Exam Prep	NA
23-Feb	Monday: Exam 1 Weds: Seeds & Germination	NA
2-Mar	Seeds & Germination Contiuened	Propagation: Seeds & Cuttings
9-Mar	Stems & The Vascular System	Vascular Systems & Microtomes
16-Mar	Spring Break	NA
23-Mar	Leaves, Pigments, & Photosynthesis	Light Spectrum Growth Trial
30-Mar	Leaves, Pigments, & Photosynthesis	Pigment Chromatography
6-Apr	Mon- Section Review, Weds- Exam 2	NA
13-Apr	Roots & Respiration	Root Tips & Gravitropism
20-Apr	Plant Pests & Biological Controls	Monitoring
27-Apr	To Be Determined	To Be Determined
4-May	Crop Report Presentations	NA
11-May	Final Exam	NA

*Schedule is Subject to Change

Evaluation and Grading Policy

Grading	#	Points	Total
Homework	10	10	100
Exams	3	100	300
Lab Exercises	10	30	300
Crop Report	1	100	100
Final Exam	1	100	100
Attendance/Participation		100	100

1000

Late Assignments: All assignments are due by the date noted on Canvas. Exceptions may be made for reasonable circumstances. Late Assignments will be accepted at a maximum of half credit.

Exams: Exams will take place in person during the scheduled time unless otherwise specified by your instructor.

Accommodations can be made as necessary.

Homework: Assignments will typically be made on Mondays and will be applicable to topics or questions posed in class.

We will discuss them the following Wednesday. As such, it is important to complete the assignments on time.

Reports/Presentations: Students will identify a crop they would like to cultivate. Students will write a 4-6 page report on the plant, its growth requirements, physiology, common pest and/or disease issues, cultural significance, economic history, and market future. Students will present their "Crop Report" to the class at the end of the semester.

Attendance: There are 28 class meetings this semester. 4 or more unexcused absences will warrant a zero score for Attendance/Participation.

Prerequisites/corequisites/ recommended preparation

None

Educational Accessibility and Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, or bipolar disorder
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- Neurodevelopmental disorders such as a learning disability, intellectual disability, autism, acquired brain injury, or ADHD
- Vision, hearing, or mobility conditions

Available services include extended test time, quiet testing environments, academic assistance and tutoring through the [LIGHT Center](#), counseling and advising, alternate formats of course materials (e.g., audio books, braille, E-texts), assistive technology, learning disability assessments, approval for personal attendants, interpreters, priority registration, on-campus transportation, adaptive physical education and living skills courses, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Student Accessibility Support Services \(SASS\)](#). If you are unsure whether you qualify, please contact Student Accessibility Support Services (SASS) for a consultation: sass@redwoods.edu.

SASS office locations and phone numbers

Eureka campus

- Phone: 707-476-4280
- Location: Learning Resource Center (Library)

Del Norte campus

- Phone: 707-465-2353
- Location: main building, near the Library

Klamath-Trinity campus

- Phone: 707-476-4280