



Syllabus for AG 21: Plant Propagation/Production

Course Information

Semester & Year: Spring 2023

Course ID & Section #: AG-21-E4748

Instructor's name: Breauna DeMatto

Day/Time of required meetings: Fridays, 8:30am – 1:50pm

Location: AT108 (Lecture), GH100 Greenhouse (Lab)

Course units: 3

Instructor Contact Information

Office hours and location: By appointment

Phone: (559) 639-9603 - cell

Email address: breauna-dematto@redwoods.edu or message via Canvas

Catalog Description

Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control; structures and site layout; preparation and use of propagating and planting mediums; use and maintenance of common tools and equipment; regulations pertaining to plant production. Laboratory required.

Course Student Learning Outcomes

1. **Describe the principles of plant reproduction, sexual and asexual. (Lec)**
2. **Identify, select, use, and maintain common propagation parent stock, nursery tools and equipment. (Lec/Lab)**
3. **Demonstrate the ability to grow plants from propagation to saleable size. (Lab)**
4. **Exhibit the personal skills (attitude, work habits, etc.) for successful employment in the wholesale nursery business. (Lab)**

Recommended Textbook

Hartmann & Kester's Plant Propagation: Principles and Practices (9th edition). *Note: older editions should be okay to use.*

The lectures for this course will be based off of the chapters from this textbook (the course outline identifies which chapters will be covered in each lecture). Reading for this class is optional, and it is a great way to go deeper into the core topics covered in this course. Therefore it is highly recommended. You will also find a *Reading Guide* under each class module in Canvas. These reading guides are provided to help direct your studying and to help you review key concepts. *Note that the reading guide is optional and not graded.*

Evaluation & Grading Policy

Evaluation for this course is based on your performance of the following assignments:

Lecture

Weekly Quizzes (11 at 10 points each) = 110 points

Unit Reviews (3 at 50 points each) = 150 points

Lab

Lab Attendance and Participation (12 labs at 15 points each) = 180 points

Plant Sale Participation = 20 points

Plant Sale Evaluation = 20 points

Seed Saving Lab Report = 40 points

Total Points = 520 points

Grades will be posted to Canvas in a timely manner after an assignment is completed. Please be sure to check your grades throughout the semester so that you can alert me of any discrepancies that you notice.

Semester grades will be based on the percentage of the total possible points earned over the semester. Letter grades will be broken down as follows:

93-100% = A

90-92% = A-

87-89% = B+

83-86% = B

80-82% = B-

77-79% = C+

70-76% = C

60-69% = D

50-59% = F

Assignments

Weekly Quizzes

Throughout each lecture, there will be quiz questions that will help to review the key concepts of the lecture. Each quiz is worth ten points and is due at the end of class. If you miss a quiz, you will be able to make it up the following class.

Unit Reviews

The material for this course is broken up into three different units. At the conclusion of each unit, there will be a unit review. The last unit review of the semester will also cover a review of some of the key concepts from throughout the semester. Unit reviews will be held in class and will be a combination of different in-class activities and exercises, and includes submitting a written unit review form. The unit reviews are graded and are worth 50 points each. Please treat this as you would an exam—study the main topics of the unit beforehand and come to class prepared to participate. *There are no make-ups for unit reviews* (exceptions will be made for serious and compelling reasons—please notify me as soon as possible if something interferes with your ability to attend class to complete the unit review).

Lab Attendance and Participation

Consistent lab attendance and active participation is critical to your success in this course. You cannot claim active participation if you are not attending class! In addition, *students are expected to attend for the whole class period*. Points will be docked for arriving late or leaving early. Each lab is worth 15 points. In general, you cannot make up a lab, however, there are extra credit points available for assisting extra hours at the annual plant sale. You will be graded on your attendance and participation for 12 labs, and there will be 13 labs offered throughout the semester, essentially giving you one excused absence that will not count against your grade.

Plant Sale Participation

This year our class will be hosting CR's 33rd Annual Spring Plant Sale. In lab, we will be growing a variety of annuals, perennials, houseplants, succulents, herbs, and veggie starts for the plant sale. Participation on the day of the event is worth 20 points. There is also an opportunity to earn extra credit by assisting extra hours at the plant sale (each hour makes up 5 points). More details about the plant sale will be provided in class.

Plant Sale Evaluation

In addition to assisting at the plant sale, you will be provided with a discussion form to assess the quality of this year's plant sale. Your feedback will be helpful in evaluating the plant sale, as well as your participation in it. This assignment is worth 20 points.

Seed Saving Lab Report

One of our activities this semester will be saving seeds from tomato plants and conducting a germination test. You will be provided with a lab report template to report on the process and results of this activity. Further information will be provided during the lab. This assignment is worth 40 points.

Class Policies

Class Overview

For this three-unit course, you can expect to spend about two hours per week in the lecture portion of our class. Lecture will be held from 8:30am-10:30am. Lab will be about three hours per week, from 11:00am-1:50pm (if we finish lecture earlier than expected, we will take a half hour break and then move into lab afterwards, so the start of our lab time may shift on certain days). Additionally, please be prepared to spend up to four hours per week out of class on this course, completing readings, reviewing lecture materials, and completing assignments.

Open Door Policy

I have an "open door policy," meaning that you can approach me with any questions or concerns at any time. I am here to help you learn and to support you on your educational journey. I am available by email, phone, and can meet in person. I will generally arrive at class 30 minutes early and stay up to 30 minutes later. If there are other times that work best for you to meet, we can work something out.

Class Expectations

First and foremost, come to class prepared to learn! This can mean a variety of things: being active in class discussions, maintaining regular attendance, staying off your phone during class, minimizing side conversations, coming to class prepared with all the materials you will need, staying caught up with course reading and assignments, etc. Secondly, please be sure to treat your instructor and fellow classmates with respect (and I trust that you will). I believe that if we all follow these two steps then we

will have a great semester!

Late Policy

Please keep yourself apprised of the due dates for your assignments. Details about assignments such as due dates can be found on the course outline and in Canvas. Be sure to allot enough time to complete each assignment, while keeping in mind the fact that computers tend to malfunction, people tend to get sick, and life tends to get messy, so please try and plan ahead for the unexpected/don't wait until the last minute. Points will be deducted for late submissions of assignments such as lab reports (please refer to the corresponding rubric for an assignment). The last day to submit any late work will be the last day of the semester.

Makeup Policy

Please note that if you are absent, you will be able to make up quizzes, but not unit reviews (unless you have a serious and compelling reason). Additionally, you must be present to earn participation for labs and there are no makeups. You will be graded on 12 of the 13 lab sessions, so you will have one excused absence from lab that will not count against your grade. If you complete all thirteen labs, you will receive extra credit for the thirteenth lab. Additional points for lab can be made up by taking advantage of extra credit opportunities, such as assisting extra hours at the plant sale.

Excessive Absences

Excessive absences will lead to being dropped from the course. Up until the end of the tenth week of the semester (3/31/23), absence from class for four total class days (4 weeks) will lead to your being dropped from the course. This is to address the prevalence of Financial Aid fraud. Note that 3/31/23 is the last day to drop and receive a W. If you realize throughout the course that you no longer wish to take this class, please drop yourself before this date so that you can receive a W. If you stop attending class after this date, I will need to assign you a grade at the end of the semester. If you need to miss class (especially multiple weeks in a row), it is good practice to reach out and let me know. You do not need to let me know why you are missing class, but simply that you will not be in class and include when you plan to return. Please be aware as well that if you are not consistently attending class prior to the census date (1/30/23), this will lead to you being dropped from the course. Furthermore, please be in the habit of being on time to class.

Class Disruptions

Cell phones are to be on silent during times when the instructor is lecturing and demonstrating greenhouse activities. During work sessions, phones may be used sparingly. Excessive phone use will result in a lower participation grade and the student will be asked to put their phone away. Students are expected to pay attention and participate in class. Students are to remain in class during the entire session with the exception of breaks. All class participants are expected to exhibit respectful behavior. All students have the right and privilege to learn in the class, free from harassment and disruption. Inappropriate or disruptive behavior will not be tolerated, nor will lewd or foul language.

Accessibility

College of the Redwoods is committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or [Disability Services and Programs for Students](#) (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor

- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

If you are taking online classes DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

Student Support

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

Admissions deadlines & enrollment policies

- *Semester begins: 01/14/23*
- *Martin Luther King Jr.'s Birthday (all campuses closed): 01/16/23*
- *Last day to add a class: 01/20/23*
- *Last day to drop without a W and receive a refund: 01/27/23*
- *Census date: 01/30/23 or 20% into class duration*
- *Last day to file P/NP (only courses where this is an option): 02/10/23*
- *Lincoln's Birthday (all campuses closed): 02/17/23*
- *Presidents Day (all campuses closed): 02/20/23*
- *Last day to petition to graduate or apply for certificate: 03/02/23*
- *Spring Break (no classes): 03/13/23-03/18/23*
- *Last day for student-initiated W (no refund): 03/31/23*
- *Last day for faculty-initiated W (no refund): 03/31/23*
- *Final examinations: 05/06/23-05/12/23*
- *Semester ends: 05/12/23*
- *Commencement: 05/15/23*
- *Grades available for transcript release: approximately 05/26/23*

Academic Dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct ([AP 5500](#)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [College Catalog](#) and on the [College of the Redwoods website](#).

Disruptive Behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct ([AP 5500](#)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [College Catalog](#) and on the [College of the Redwoods website](#).

Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact [Admissions & Records](#) to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. This does not change your legal name in our records. See the [Student Information Update form](#).

Canvas Information

Canvas will be utilized for this class. Our Canvas class page will be where you can find the syllabus, assignments, articles, grades, announcements, and is also a great way to message myself or your classmates. Grades will be logged into Canvas throughout the semester so that you are able to keep track of your progress. *Be sure that you set your Canvas settings to allow you to receive notifications when announcements and messages are sent.*

Log into Canvas at [My CR Portal](#)

For help logging in to Canvas, visit [My CR Portal](#).

For help with Canvas once you're logged in, click on the Help icon on the left menu.

For tech help, email its@redwoods.edu or call 707-476-4160

Canvas online orientation workshop: [Canvas Student Orientation Course \(instructure.com\)](#)

Community College Student Health and Wellness

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges [Health & Wellness website](#).

[Wellness Central](#) is a free online health and wellness resource that is available 24/7 in your space at your pace.

Students seeking to request a counseling appointment for academic advising or general counseling can email counseling@redwoods.edu.

Emergency Procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor <https://webadvisor.redwoods.edu> and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions. For more information see the [Redwoods Public Safety Page](#).

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

Eureka Campus Emergency Procedures

Please review the [campus emergency map](#) for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the [Redwoods Public Safety Page](#). It is the responsibility of College of the Redwoods to protect life and property from the effects of emergencies within its own jurisdiction.

In the event of an emergency:

1. Evaluate the impact the emergency has on your activity/operation and take appropriate action.
2. Dial 911, to notify local agency support such as law enforcement or fire services.
3. Notify Public Safety 707-476-4111 and inform them of the situation, with as much relevant information as possible.
4. Public Safety shall relay threat information, warnings, and alerts through the Everbridge emergency alert system, Public address system, and when possible, updates on the college website, to ensure the school community is notified.
5. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet, (evacuation to a safe zone, shelter in place, lockdown, assist others if possible, cooperate with First Responders, etc.).
6. If safe to do so, notify key administrators, departments, and personnel.
7. Do not leave campus, unless it is necessary to preserve life and/or has been deemed safe by the person in command.

Student Support Services

The following online resources are available to support your success as a student:

- [CR-Online](#) (Comprehensive information for online students)
- [Library Articles & Databases](#)
- [Canvas help and tutorials](#)
- [Online Student Handbook](#)

[Counseling](#) offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- [Academic Support Center](#) for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- [Library Services](#) to promote information literacy and provide organized information resources.
- [Multicultural & Diversity Center](#)

Special programs are also available for eligible students include

- [Extended Opportunity Programs & Services \(EOPS\)](#) provides services to eligible income disadvantaged students including: textbook award, career academic and personal counseling, school supplies, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in [Eureka](#) or in [Del Norte](#)
- The [Veteran's Resource Center](#) supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

Course Outline - Spring 2023

This is a tentative outline of the topics that we will cover this semester. You will be notified of any changes beforehand.

Date	Lecture Topic	Lab Activity
Unit 1: Introduction to Plant Propagation		
1/20	Syllabus and Course Introduction/ Plant Propagation in Society <i>Reading: Chapter 1</i>	-Intro to CR Greenhouse -Seed Stratification Demo -Plant Sale Prep: Seed Starting
1/27	Intro to Plant Propagation and Reproduction <i>Reading: Chapter 2</i>	-Plant Sale Prep: Seed Starting -Botanical Garden Walk: Plant Anatomy ID
2/3	Plant Production: The Propagation Environment <i>Reading: Chapter 3</i>	-Crop Scheduling -Plant Sale Prep: Seed Starting
2/10	<u>Unit 1 Review</u> - In Class Activities	Plant Sale Prep: Seed Starting and Shifting Up
2/17	Lincoln's Birthday - NO CLASS	
Unit 2: Vegetative Propagation		
2/24	Intro to Vegetative Propagation/ Principles and Techniques of Propagation by Cuttings <i>Reading: Chapter 10 & 11</i>	-Cuttings -Plant Sale Prep: Seed Starting and Shifting Up
3/3	Principles and Techniques of Grafting and Budding <i>Reading: Chapter 12 & 13</i>	-Grafting -Plant Sale Prep: Seed Starting and Shifting Up
3/10	Propagation by Specialized Stems and Roots <i>Reading: Chapter 16</i>	Plant Sale Prep: Seed Starting and Shifting Up
3/17	Spring Break - NO CLASS	
3/24	Propagation by Layering and Division Principles and Techniques of Micropropagation <i>Reading: Chapters 15 & 17</i>	-Air Layering -Plant Sale Prep: Shifting Up
3/31	<u>Unit 2 Review</u> - In Class Activities	-Seed Saving: Harvesting Tomato Seeds -Plant Sale Prep: Shifting Up

Unit 3: Seed Propagation		
4/7	Seed Development and Selection <i>Reading: Chapter 4 & 5</i>	-Seed Saving: Start Tomato Seed Germination Test -Plant Sale Prep: Shifting Up
4/14	Seed Production and Handling <i>Reading: Chapter 6</i>	-Check seed germination -Prepare for Plant Sale: Merchandising and Organization
4/21 - 4/22	Plant Sale (Friday 10-5:30 and Saturday 10-3:30) <i>Assist at Plant Sale (Fri 8:30am-1:50pm). Extra-credit available for assisting extra hours.</i>	
4/28	Principles and Techniques and of Seed Propagation <i>Reading: Chapters 7 & 8</i> <i>Plant Sale Evaluation Due</i>	-Plant Sale Debrief -Take home leftover plants
5/5	Current Topics in the Seed Industry <i>Seed Saving Lab Report Due</i>	Field Trip - Elk River Nursery
5/12 Finals Week	Finals Schedule: Friday, 8:30-10:30am <u>Unit 3 and Course Review</u> - In Class Activities	