Syllabus for AG 21: Plant Propagation/Production

Course Information

Semester & Year: Spring 2024
Course ID & Section #: AG-21-E6151
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

Required Textbook: The Plant Propagator's Bible: A Step-by-Step Guide to Propagating Every Plant in Your Garden – Miranda Smith (2021).
Reading from this textbook will be assigned to correspond with the majority of the lectures (see Course Outline for specific reading assignments). In addition to the reading, there will be reading assignment activities on Canvas each week (with the exception of Week 1 and weeks with a Unit Review).

Recommended Textbook:
The lectures for this course are based on the chapters from the textbook Hartmann & Kester's Plant Propagation: Principles and Practices (9th edition). *Note: older editions should be okay to reference, as they are quite similar*. Reading of this textbook is *optional*, and it is a great way to go deeper into the core topics covered in this course. Therefore it is recommended. If you are interested in reading this textbook as part of the course, see the "Textbook" section on Canvas, which will provide you with resources for which chapters in the textbook correlate with our weekly lectures.

Evaluation & Grading Policy

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

<u>Lecture</u>
Reading Assignment Activities (11 at 10 points each) = 110 points
Unit Reviews (3 at 50 points each) = 150 points
<u>Lab</u>
Lab Attendance and Participation (13 labs at 15 points each) = 195 points
Plant Sale Participation = 20 points
Plant Sale Evaluation = 20 points
Seed Saving Lab Report = 40 points
Total Points = 535 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

<u>Reading Assignment Activities</u>
Each week that there is an assigned reading (every week with the exception of Week 1 and weeks with a Unit Review), there will be a corresponding assignment. These reading assignment activities will be available on Canvas, and are a combination of short answer, multiple choice, and matching questions based on the reading. *Each assignment is due the Thursday prior to class by 11:59pm and is worth 10 points*. There are a total of eleven assignments throughout the semester. The majority of the reading will be assigned from our required text, *The Plant Propagator's Bible*, but a few weeks will include a document that is available on Canvas. See the Course Outline for the specific reading assignments.

<u>Unit Reviews</u>
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).

<u>Lab Attendance and Participation</u>
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 activity, however, there are extra credit points available to help make up for absences.

Plant Sale Participation
This year our class will help host CR's 34th 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 and will help improve future plant sales. *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.

Excessive Absences
Excessive absences will lead to you being dropped from the course. Up until the end of the tenth week of the semester (3/29/24), 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 3/29/24 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 (1/29/24), 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.

Educational Accessibility & 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, bipolar disorder, and ADHD
- 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
- A learning disability (e.g., dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
- Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, tutoring, counseling and advising, alternate formats of materials (e.g., audio books, E-texts), assistive technology, on-campus transportation, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact Disability Services and Programs for Students (DSPS). If you are unsure whether you qualify, please contact DSPS for a consultation: dsps@redwoods.edu.

- Eureka: 707-476-4280, Student Services Building, 1st floor
- Del Norte: 707-465-2324, Main Building, near the library
- Klamath-Trinity: 707-476-4280

Student Support Services

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.

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
- Online Tutoring Resources

To learn more about the resources available to you, click on a title bar below, or click the down arrow to expand them all.

Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

Community College Student Health and Wellness

If you are in distress or are with someone at risk right now, call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255) or TEXT 741-741

Timely Care
When you're feeling under the weather physically or distressed mentally, you can find the help you're looking for in just a few quick taps. Students can schedule an appointment anytime via phone, video, and chat. Visit TimelyCARE here

Mental Health Counseling
Students should text, email, or fax Shawna Bell directly for scheduling and/or services.
Contact info
Text: 707-496-2856
Email: shawnabmft@gmail.com
Fax: 707-237-2318 (voicemail can be left via fax)

Wellness Central
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 Wellness Central.

Counseling

Counseling & Advising can assist students in need of academic advising and professional counseling services. Visit the Welcome Center in the lower level of the student services building Monday –Friday 9am – 4pm (during the semester, summer hours may vary).

Basic Needs Center

The Basic Needs Center provides for the health and safety of students by providing access to healthy food, financial resources, and referrals to safe and secure housing. Students can submit a request for services and information here.
Contact info
Phone: 707-476-4153

Email: the-grove@redwoods.edu

Learning Resource Center

Learning Resource Center includes the following resources for students

- [Library Services](#) to promote information literacy and provide organized information resources.
- [Multicultural & Diversity Center](#)
- [Academic Support Center](#) – offers tutoring and test proctoring for CR students.
- [Student Tech Help](#) – provides students with assistance around a variety of tech problems.

EOPS

[Extended Opportunity Programs & Services (EOPS)Links to an external site.](#) provides services to eligible income disadvantaged students including: textbook awards, grants, career academic and personal counseling, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!

TRiO Student Success Program

The TRiO Student Support Services Program provides eligible students with a variety of services including academic advising, career assessments, assistance with transfer, and peer mentoring. Students can apply for the program in [Eureka](#) or in [Del Norte](#).

Veterans Resource Center

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.

CalWORKS

CalWORKs – California Work Opportunity & Responsibility to Kids (CalWORKs). Provides supportive services to student parents with children under the age of 18, who are receiving cash assistance (TANF **benefits**), to become self-sufficient. Services include: transportation assistance, basic student supplies, tutoring, priority registration, laptop and calculator loans, career, academic, and personal counseling, and more!

Spring 2024 Dates

January 12	Last day to register for classes (day before the first class meeting)
January 13	Classes begin
January 15	Martin Luther King, Jr.'s Birthday Holiday (District-wide closure)
January 19	Last day to add a class
January 26	Last day to drop without a "W" and receive a refund
January 29	Census Date (20% of class)

February 16	Lincoln's Birthday Holiday (District-wide closure)
February 19	President's Day Holiday (District-wide closure)
March 7	Last day to petition to graduate
March 29	Last day for student initiated withdrawal (62.5% of class)
March 29	Last day for faculty initiated withdrawal (62.5% of class)
March 11-16	Spring break (no classes)
April 1	District-wide closure (Cesar Chavez Day) .
May 4-10	Final Examinations
May 10	Last day to file for P/NP Option
May 10	Semester Ends
May 17	Grades due
May 24	Grades available

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.

AI Use Class Policy

Recent advancements in generative artificial intelligence (AI) have made large language models such as ChatGPT and Google's Bard widely available. Sometimes, using these tools appropriately can help us overcome barriers and allow us to focus on deeper learning. However, overuse of these tools can undermine the development of our critical and creative thinking skills. In addition, AI outputs are often unreliable and frequently subject to bias. For these reasons, it is sometimes appropriate and sometimes inappropriate to use generative AI in the completion of assignments or in discussion posts. For this class, please see the specific assignment instructions for guidance on how and when generative AI tools may be used appropriately as we're working on and learning from a particular assignment. Also, please keep in mind that you are responsible for anything you submit; please carefully review all AI-generated outputs, screening them for accuracy, bias, appropriateness, and fidelity to your perspective.

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.

Canvas Information

Canvas will be utilized for this class. Our Canvas class page will be where you can find the syllabus, lecture content, 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 https://redwoods.instructure.com
Password is your 8 digit birth date
For tech help, email its@redwoods.edu or call 707-476-4160
Canvas Help for students: https://webapps.redwoods.edu/tutorial/
Canvas online orientation workshop: Canvas Student Orientation Course (instructure.com)

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.

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 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.
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.

Course Outline - Spring 2024

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	Reading/Assignment*
Unit 1: Introduction to Plant Propagation			
Week 1 1/19	Syllabus and Course Introduction Plant Propagation in Society	-Intro to CR Greenhouse -Seed Packet Activity -Plant Sale Prep: Seed Starting	
Week 2 1/26	Intro to Plant Propagation and Reproduction	-Botanical Garden Walk: Plant Anatomy ID -Seed Stratification -Plant Sale Prep: Seed Starting	Life Cycles - p. 40 Plant Taxonomy (Canvas document) *Reading Assignment #1 due*
Week 3 2/2	Plant Production: The Propagation Environment	-Crop Scheduling -Seed Scarification -Plant Sale Prep: Seed Starting	The Propagator's Toolkit - pp. 12-19 *Reading Assignment #2 due*
Week 4 2/9	<u>Unit 1 Review</u>	Plant Sale Prep: Seed Starting and Shifting Up	
Week 5 2/16	**Lincoln's Birthday - NO CLASS**		
Unit 2: Vegetative Propagation			
Week 6 2/23	Principles and Techniques of Propagation by Cuttings	-Cuttings -Plant Sale Prep: Seed Starting and Shifting Up	Cuttings - pp. 74-97 *Reading Assignment #3 due*
Week 7 3/1	Principles and Techniques of Grafting and Budding	-Grafting -Plant Sale Prep: Seed Starting and Shifting Up	Grafting - pp. 112-133 *Reading Assignment #4 due*
Week 8 3/8	Propagation by Specialized Stems and Roots and Propagation by Division	Plant Sale Prep: Seed Starting and Shifting Up	Dividing Established Plants - pp. 54-73 *Reading Assignment #5 due*
3/15	**Spring Break - NO CLASS**		
Week 9 3/22	Propagation by Layering Principles and Techniques of Micropropagation	-Layering -Plant Sale Prep: Shifting Up	Layering - pp. 98-111 cropropagation - (Canvas document) *Reading Assignment #6 due*

Week 10 3/29	Unit 2 Review	-Seed Saving: Harvesting Tomato Seeds -Plant Sale Prep: Shifting Up	
Unit 3: Seed Propagation			
Week 11 4/5	Seed Development and Selection	-Seed Saving: Start tomato seed germination test -Seed Catalog Activity -Plant Sale Prep: Shifting Up	Seed Characteristics, Flowers and Seeds - pp. 20-23 *Reading Assignment #7 due*
Week 12 4/12	Seed Production and Handling	-Check seed germination -Prepare for Plant Sale: Merchandising, Organization, and Sale Logistics	Saving Seeds - pp. 42-53 *Reading Assignment #8 due*
Week 13 4/19-4/20	**Plant Sale (Friday 10-6 and Saturday 10-4)** *Assist at Plant Sale (Fri 8:30am-1:50pm). Extra-credit available for assisting extra hours.*		
Week 14 4/26	Principles and Techniques and of Seed Propagation ***Plant Sale Evaluation Due***	-Plant Sale debrief -Seed swap -Take home leftover plants	Starting from Seed - pp. 24-39 *Reading Assignment #9 due*
Week 15 5/3	Current Topics in the Seed Industry ***Seed Saving Lab Report Due***	TBA	2023 Policy Platform for Seed (Canvas document) *Reading Assignment #10 due*
Week 16 5/10	**Finals Schedule: Friday 5/10, 8:30-10:30am** <u>Unit 3 and Course Review</u> *Last day to submit Extra Credit Assignment*		

Assignments are due on Thursdays by 11:59pm of the assigned week (the day before class) on Canvas.