

## Course Syllabus

Agronomy/Horticulture 2160 (Plant Propagation) – Spring 2021

Instructor: Dr. G.A. Picchioni, Skeen Hall N344, 646-1820 ([gpicchio@nmsu.edu](mailto:gpicchio@nmsu.edu))

Office Hours: Please email requests to instructor for phone or zoom meeting as necessary.

Graduate TA: Harmanpreet Kaur ([harman12@nmsu.edu](mailto:harman12@nmsu.edu))

Course Description: **PLANT PROPAGATION** (Section M02, 3 cr.; 2+2P). Principles and practices of seed (sexual) and vegetative (asexual) propagation of horticultural plants.

Meeting Times: **Lectures:** 12:00 to 12:50 pm (MW); Online on Zoom

**Labs:** 4:30 to 6:30 pm (M); Online (Zoom) unless otherwise announced

Learning Objectives:

- Practical methods of propagating plants by seed, cuttings, layering, grafting, division, and tissue culture through experiential, “hands-on” laboratories.
- Relevant physiological principles involved in propagating horticultural plants through lecture discussions and readings.

Textbook (Recommended): Davies, F.T. Jr., R.L. Geneve, and S.B. Wilson. 2018. Hartmann and Kester’s Plant Propagation: Principles and Practices. 9th Ed. Pearson Education, New York. Check NMSU Bookstore (on campus), Campus Bookstore (across campus in Pan Am Plaza), Amazon, etc. for new, used, and rental options. Textbook readings are recommended to strengthen and expand information presented in lectures, improve exam performance, and maximize educational value for students.

What I expect from students: I expect students to enjoy the subject, attend class regularly, to be on time, to meet all deadlines, to avoid turning in any work late, to participate in discussions, and to demonstrate that they want to be here. I also expect students to keep up with the syllabus and all assignments. Finally, I ask that students be focused on our meetings and to turn off any device that does not relate to the class.

What students can expect from me: Active learning, science in the classroom, fairness in grading, willingness to help, approachable, and concern about quality of students’ work and training.

Electronic Resources: We will use Canvas, web tools, and online journal articles. Class information, lectures, lab exercise pack, and web resources will be posted on Canvas. Canvas email will be used by students and instructor as necessary outside of class. Students must use their NMSU email account and not personal email accounts. Please check your system (Windows, Mac, IPAD, etc.) and make sure that you have a stable internet connection, a working webcam and microphone, audio, and current versions of MS Office (Xcel, PowerPoint, Word), Adobe Reader, and Zoom in Canvas. If you are new to Zoom in Canvas, please see student quickstart guide at <https://learning.nmsu.edu/zoom-at-nmsu/zoom-in-canvas/>.

Class Attendance and Excused Absences: Good attendance is defined as missing no more than three lecture meetings and no more than one lab meeting. Attendance will be recorded and may affect borderline course grades (see below). **WHAT IS AN EXCUSED ABSENCE FOR MISSING AN EXAM OR ASSIGNMENT DUE DATE?** 1) An illness that is verified in writing by a physician’s note with e-copy emailed to instructor by the first day returning to class, OR 2) participating in a NMSU-sponsored activity that is verified by a written note from university sponsor and emailed to instructor before the event. Any other absences will not be considered excused absences. For medical attention, the NMSU Aggie Health and Wellness Center is operated by licensed physician and nursing staff, and can be reached at 646-1512.

Lecture Exams: We will have three exams, each noncumulative. No makeup exams will be provided unless a student has an excused absence on an exam day. The final exam is scheduled for Monday, May 10 from 3:30-5:30 pm on Zoom. Students are responsible for contacting the instructor immediately if this final exam time conflicts with another final exam so that an alternative time can be arranged.

Lab Exercise Pack: Students will complete seven laboratory reports in a **Lab Exercise Pack** and email their completed **Lab Exercise Pack** to TA by **5 pm on Friday, May 7**. Student's name must appear on the cover page. Late **Lab Exercise Pack** submissions will be dropped by one letter grade for each day late.

Weekly Laboratory Assignments: Students will complete weekly laboratory assignments given by the TA and must submit the work by email to the TA and by the TA's specified deadlines. There is only one lab section for this course, thus the instructor and TA will not be able to conduct lab meetings more than the one time listed on the lab schedule. If a student has an excused absence for a given lab day, the TA may determine a suitable independent make-up assignment.

<u>Grading Criteria:</u>	Category	Percent of Total Grade
	Three Exams (16.67% each)	50
	Lab Exercise Pack and Lab Attendance	30
	Weekly Lab Assignments	20
	<b>Total</b>	<b>100</b>

Grading Scale: 90-100%=A, 80-89%=B, 70-79%=C, 60-69%=D, <59%=F

Fractional Grading: Students with good attendance and whose final grade is borderline (i.e., 59%, 69%, 79%, etc.) may be rewarded the next higher fractional grade (i.e., B- for 79%, A- for 89%, etc.). Students who do not have good attendance will not receive a higher fractional grade.

Six-Week Early Performance Grades: A six-week early performance grade for this course will be posted. You may access your grade through mynmsu under the Student Tab: Click on Student Record/Midterm Grades. This grade will reflect your performance on only a portion of the total graded work in this course. If you are doing well, congratulations on your success—but be mindful that there is still a significant portion of the graded work yet to be completed. If you are not doing as well as you would like, please contact instructor to discuss how you can improve. If you have concerns about your progress in multiple courses and need to consider a schedule change, meet with your academic advisor.

Discrimination and Disability Accommodation: Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADA) covers issues relating to disability and accommodations. If a student has questions or needs an accommodation in any course, they should contact Student Accessibility Services, Corbett Center Student Union Room 208, 575-646-6840 (V/TTY), [sas@nmsu.edu](mailto:sas@nmsu.edu). All medical information is treated confidentially.

New Mexico State University, in compliance with applicable laws and in furtherance of its commitment to fostering an environment that welcomes and embraces diversity, does not discriminate on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, serious medical condition, sex (including pregnancy), sexual orientation, spousal affiliation, or protected veteran status in employment, admissions, and educational programs and activities. Inquiries may be directed to the Executive Director of the Office of Institutional Equity, O'loughlin House, P.O. Box 30001, 1130 E. University Avenue, Las Cruces, NM 88003; 575-646-3635; 575-646-7802 (TTY); [equity@nmsu.edu](mailto:equity@nmsu.edu).

Title IX prohibits sexual harassment, sexual assault, intimate partner violence, stalking, and retaliation. For more information on discrimination or Title IX, or to file a complaint, contact the Office of Institutional Equity.

Other NMSU Resources:

NMSU Police Department: (575) 646-3311

NMSU Police Victim Services: (575) 646-3424

NMSU Counseling Center: (575) 646-2731

NMSU Dean of Students: (575) 646-1722

NMSU Aggie Health and Wellness Center (575) 646-1512

For Any On-campus Emergencies: 911

Academic and non-academic misconduct. The Student Code of Conduct defines academic misconduct, non-academic misconduct, and the consequences or penalties for each. The Student Social and Academic Codes of Conduct, including plagiarism, are available and explained in the NMSU Student Handbook online at <http://studenthandbook.nmsu.edu/>.

## ONLINE LECTURE AND EXAM SCHEDULE

Date	Topic	Recommended textbook readings*
Jan. 25	Course Guidelines, Introduction, Literature Plant Propagation in Review, Relevant Plant Biology	--- Ch. 1-3
Jan. 27	Plant Propagation in Review, Relevant Plant Biology Sanitation Practices in Greenhouse	Ch. 1-3 Ch. 3 (pp. 107-110)
Feb. 1-8	Principles of Seed Propagation	Ch. 4-8
Feb. 8-10	Clones in Horticulture	Ch. 9
Feb. 15	President's Day (No Classes Scheduled)	---
Feb. 17-22	Propagation of Plants by Cuttings (General)	Ch. 10-11
Feb. 24	Exam I	---
March 1-3	Anatomical Basis, Adventitious Root & Shoot Formation	Ch. 10
March 8-10	Cuttings, Hormones, Plant Growth Regulators	Ch. 10-11
March 15-24	Horticultural Aspects, Cutting Propagation	Ch. 10-11
March 29-31	Layering Principles and Techniques	Ch. 15
Apr. 5	Exam II	---
Apr. 7-19	Grafting and Budding Principles, Techniques	Ch. 12-14
Apr. 21-26	Divisions, Specialized Structures	Ch. 16
Apr. 28-May 3	Plant Micropropagation and Tissue Culture	Ch. 17-18
May 5	Student Field Reports and Pictures	---
<b>May 10 (Mon.)</b>	<b>Exam III (Final Exam), 3:30 5:30 pm</b>	---

\*The textbook readings will strengthen and expand the information presented in lectures, improve exam performance, and maximize educational value for the student. Additional readings may be assigned. In addition to the textbook readings, students are encouraged to retrieve and study online journal articles and other literature cited in lectures to further increase educational value of the course.

## LAB SCHEDULE

Labs will be held online with Zoom unless otherwise announced. It is essential that students maintain current records of their exercises in their Lab Exercise Pack. Students must also keep up with weekly lab assignments and email their completed assignments to TA by the announced deadlines.

Date	Location	Activity
Jan. 25	Skeen W139; <i>Mask &amp; social distance</i>	Pick up supplies for <b>Lab Exercise Pack</b> On you own: Seed dormancy video and setup
Feb. 1	Online-Zoom	Succulent leaf cuttings (video and home setup)
Feb. 8	Online-Zoom	Hardwood stem cuttings (video and home setup)
Feb. 15	No classes	President's day – no classes scheduled
Feb. 22	Online-Zoom	Air layering (video and home setup)
March 1	Online-Zoom	Tissue culture <i>ex vitro</i> acclimatization (video and home setup)
March 8	Online-Zoom	Virtual field trip – Sunland Nursery Color Division (video)
March 15	Online-Zoom	Seed dormancy germination test (video and home setup)
March 22	Online-Zoom	Planting a herbaceous perennial (video and home setup)
March 29	Online-Zoom	Chip budding (video and home setup)
Apr. 5	Online-Zoom	Seed dormancy germination data collection (video)
Apr. 12	Online-Zoom	Succulent leaf and hardwood stem cutting data collection (videos)
Apr. 19	Online-Zoom	Virtual field trip – Sunland Field Production Nursery (video)
Apr. 26	Online-Zoom	Air layering and chip budding data collection (video)
May 3	Online-Zoom	Tissue culture data collection and observations (video)

Instructor and TA will be available during lab meetings to help students with their Lab Exercise Packs.

**Lab Exercise Pack must be in complete form and emailed to TA no later than 5 pm on Friday, May 7.**

This document is appended to syllabus per University requirement. A separate individual copy will be emailed to the students to simplify the completion and submission process.



**NMSU READY - Crimson Commitment  
Classroom COVID-19 Safe Practices  
Acknowledgement Form**

\* Syllabus Addendum \*

**Class Number and Name:**  
AGRO/HORT 2160  
Plant Propagation  
Spring 2021

Because COVID-19 is a disease that spreads primarily from person to person, all employees, students and visitors are expected to take personal responsibility for their own health, help protect the health of others, and keep the Aggie community safe from the spread of COVID-19 and other infections.

To minimize the risk to public health presented by the spread of COVID-19 while working and learning at NMSU, students are expected to adhere to the following expectations:

<b>NMSU CLASSROOM SAFETY EXPECTATIONS</b>	<b>My Initials</b>
<p><b>1. I understand the NMSU Ready- Crimson Commitment Statement and I commit to:</b></p> <ul style="list-style-type: none"> <li>• Personally Protect My Own Health</li> <li>• Protect Other Aggies</li> <li>• Keep the Aggie Community Safe</li> </ul>	
<p>2. I will wear the multilayer cloth face covering or personal protective equipment and practice proper hand-washing techniques frequently. <i>If I need an exception for the face covering, I will contact the Office of Dean of Students via email at <a href="mailto:DOS@nmsu.edu">DOS@nmsu.edu</a>.</i></p>	
<p>3. I will maintain physical distance of at least 6 feet between myself and others to limit the chance of acquiring or spreading COVID-19.</p>	
<p>4. I will follow instructions regarding the decontamination of classroom work surfaces and my personal work space.</p>	
<p>5. I will follow instructions regarding seating instructions in campus classrooms.</p>	
<p>6. I agree to closely monitor my health and will not attend class or participate in face-to-face activities if I feel sick or if I develop or display symptoms of COVID-19.</p>	
<p>7. If I have a positive test for COVID-19 or I develop symptoms, I agree to notify the Aggie Health and Wellness Center (call 575-646-1512 or email <a href="mailto:campus_health@nmsu.edu">campus_health@nmsu.edu</a>).</p>	
<p>8. If I am unable or unwilling to comply with the Classroom COVID-19 Safe Practices I will leave the classroom willingly and seek alternative academic course options.</p>	
<p>9. I understand that failure to follow these expected behaviors would be detrimental to public health efforts and could impact my ability to continue my coursework at NMSU.</p>	
<p>10. I acknowledge the importance of following COVID-19 Classroom Safety Practices and I understand that should I fail to meet any of these expectations I may be subject to action as per the NMSU Student Social Code of Conduct (ARP 5.20).</p>	

***I understand and acknowledge the following Classroom COVID-19 Safe Practices and will abide by these expectations throughout the duration of the course.***

\_\_\_\_\_  
FULL NAME

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE