

Introduction to Cultivated Plants

Hort/Crop Science 102 (3 credits) - Fall 2020

Class Time and Place

MWF 11:10 – 12:00

Pullman –Spark Building G-45

Tri-Cities (via AMS) – wine science center classroom

Instructor

Carol Kawula

Senior Instructor - Horticulture

Johnson Hall 101

Office Hours: to be determined and by appointment (e-mail me) , also after class on Fridays carol.kawula@wsu.edu

Teaching Assistants:

Pullman campus:

Tymon Jamison: Tymon.james@wsu.edu

Alex Schaller: alexander.schaller@wsu.edu

Course Overview

This course introduces the principles of plant science with an emphasis on plants and management practices for various cultivated crops. Topic areas include: plant classification, plant anatomy and physiology, soil science, climatic influences on plants, plant metabolism and the heredity of traits, crop breeding, cropping systems, and management practices.

Throughout the semester, various faculty from the Crop and Soil Science, Horticulture, and Plant Pathology, and other speakers will present lectures in their area of expertise. Students will be exposed to multiple perspectives in the diverse field of plant sciences while learning about the scientific and technological pursuit of crop production.

Students are encouraged to relate their ideas and experiences to their learning. The goal is for students to gain a better understanding of their academic major, 200- and 300-level courses they might wish to take, and their future careers.

Classes will be mostly lecture-based with time for discussion, collaborative learning, and small group work. Students are expected to work unassisted on tests but are encouraged to collaborate on and discuss all other coursework.

Student Learning Outcomes:

- Illustrate the diversity and importance of cultivated plants.
- Identify the anatomy and morphology of roots, stems, leaves, flowers, fruits, and seeds. Classify cultivated species with taxonomical and scientific language.
- Identify and explain abiotic and biotic influences on plant growth.
- Compare and contrast the processes of plant growth for multiple species.
- Describe the production systems and related issues for several cultivated plant groups.
- Write with academically appropriate syntax, grammar, terminology, and citation style about research, issues, and controversies in plant cultivation.

Textbook

- Plant Science – Growth, Development, and Utilization of Cultivated Plants, 5th edition.

Authors: Margaret J. McMahon, Anton M. Kofranek, Vincet E. Rubatzky. Prentice Hall, 2011.

- The text is **optional** and recommended for students planning to take 200- and 300- level Crop Science, Biology, and Horticulture courses. Lectures, papers and class discussions will usually provide most of the examinable content.

Lectures

- Due to the constraints of a large classroom, most course material will be presented as PowerPoint lecture. Speakers make it their responsibility to make the lectures interesting by including different media (ie. video, padlet, etc.), providing narrative, and encouraging student-student interaction. Your attention and focus are important to creating a successful classroom environment.
- PADLET: is an on-line virtual bulletin board that can be used to display information for any topic. This is a free on-line application you will access through an electronic device. We will use Padlet to allow you to practice what you have learned, anticipate an answer, ask questions etc.
- Lecture notes – blank study sheets with important concepts and terms listed in the order they will be presented will be available on blackboard the afternoon/evening before lecture. This will be an outline that you can take notes with. You may print these and bring them to class or you may use electronic devices (computers, tablets, phones) to take notes. These notes will help you study for tests.

Distance Learning – video conferencing

- Lectures will be recorded live from the Pullman campus Spark building and video streamed to the Tri-Cities campus except for the days we have guest speakers from other campuses.
- Tri cities students are encouraged to:
 - Participate in class discussions, do not raise your hand but speak loudly and say “question from tri-cities”
 - Let me know if you are having audio/visual problems
 - Sit together in the same arrangement each day: this way the cameras can focus in on one section and we can actually see you.

“Blackboard Learn” - Online Course Management system

- The online course management system can be accessed via Blackboard at: <http://learn.wsu.edu>
- Please check this site frequently for:
 - Announcements
 - Grades
 - Daily quizzes and tests will be taken on Blackboard
 - Lecture power points, articles to read
 - Lecture notes (blank study sheets)
 - Detailed assignment information
 - Recordings of class lectures

Grading:

Course grades are based upon 769 total weighted points. (This number may be adjusted at the end of the semester)

33 daily quizzes	@ 4 points	= 132	124 points (two lowest grades are dropped)
8 tests	@ 50 points	= 400	350 points (lowest grade dropped)
7 Synthesis Activities	@ 25 points	= 175	175 points
1 Information assign.	@ 20 points	= 20	20 points
1 Topic Essay	@ 100 points	= 100	100 points
	Total	827	weighted total = 769 points

A =	93% +	B- =	80-82%	D+ =	67-69%
A- =	90-92%	C+ =	77-79%	D =	60-66%
B+ =	87-89%	C =	73-76%	F =	below 60%
B =	83-86%	C- =	70-72%		

o **daily quizzes: (33 quizzes, 4 pts. each) (lowest 2 are dropped)**

- Your success in this class is contingent upon your attendance and participation in discussions and group work. Please try to arrive to class on time prepared to fully participate.
- Daily quizzes will be given each day. The time of the quiz will vary, and quizzes will be accessed on the internet through blackboard. It will be important to que up blackboard before class begins. If you do not have an electronic device to access blackboard, you may use pen and paper.
- Your lowest 2 quizzes will be dropped at the end of the semester.

o **Synthesis Activities (7 assignments, 25 points per assignment)**

Prior to online tests, a synthesis period is offered to go deeper and review recent lecture material, answer student questions, and prepare for tests. During these synthesis periods, students are expected to attend class and work with a group to complete a workbook assignment promoting higher-ordered comprehension of major themes, terms, and concepts presented in lecture. These assignments are designed to develop critical thinking while developing interpersonal communication and peer collaboration skills.

o **Tests (8 tests, 50 points per test) (lowest score dropped)**

- An online test will be given every 1 ½ - 2 weeks of the semester. Tests are accessed through Blackboard.
- **All tests must be taken alone without help from others. You may use your notes.**
- The tests will be available shortly after a review (synthesis) period. All tests will open at 6:00 a.m. and close at 11:59pm on the assigned date. Exception is test 8 (final test)
- You will have 35 minutes to complete the tests. There are usually 15 questions/test. The tests are formatted as multiple-choice (1 answer), multiple answer (more than 1 answer, matching, ordering or true/false questions. These questions will assess student comprehension of major themes, terms, and concepts presented in lecture and discussion.
- Your lowest test score will be dropped
- Make-up tests are offered at the discretion of the instructor prior to the test date. If you have technical difficulties, you must e-mail the instructor immediately.

o **Topic Essay and information search assignment - (120 points)**

- Students are expected to attend lectures, take notes, and ask questions in preparation for constructing a topic essay. Students are required to choose a topic or theme presented in class by a guest lecturer.
- An “information search” assignment will be **due Nov. 8** worth 20 pts. (1 week prior to the essay due date)
- Students then write an academic essay about the topic they choose. The topic essay is **due Nov 15** and worth 100 points. Essays received late will be docked 5 points per day.
- I encourage you to begin writing this essay soon after a topic has been presented that you are interested in. You may turn in your essay earlier than the due date. Although there is no peer evaluation or draft required prior to submission of this assignment, I strongly encourage you to have your paper edited. This can be done by visiting the WSU Writing Center, or by seeking input from the instructor/TA of this course prior to submission of this assignment.
- A more detailed set of guidelines and instructions for speaker summaries can be accessed on Blackboard.

Office Hours:

- o Carol Kawula: to be determined and by appointment, also after class on Fridays (By appt. please email me at carol.kawula@wsu.edu with two preferred times)
- o The teaching assistants are available for office hours by appointment. Please email to arrange meetings

- Instructor and TAs will work to respond to emails as soon as possible, during the week within one day if possible. Weekend and night correspondence may be limited or delayed until the next workday. Please communicate in a clear and concise manner.

Instructor Policies

- Attendance is expected at all times. You will be quizzed and tested not only on lecture notes, but also on in-class discussions. Your success in this course depends on your attendance!
- Information regarding tests, quizzes, and other changes to the syllabus will occasionally be communicated by email. Emails will be sent to your @wsu.edu account. Check your email. If using a different email address, be sure that your @wsu.edu messages are successfully forwarded to your other account.
- You may use a laptop or other electronic device only for **note-taking and quizzing**.
 - Be respectful of your instructor, speakers, and fellow classmates by refraining from text messaging, online social media, games, etc. during class time. Such activities are a distraction to those around you, and have no place in a lecture classroom.
- Silence your phone and other devices during class.
- Log on to Blackboard on the WSU web site to access course documents, lecture notes, course announcements, grades, etc. Check the site frequently. <http://learn.wsu.edu>

Campus Resources

- Writing Center, <https://writingprogram.wsu.edu/undergraduate-writing-center/>
- Library Services, <http://www.wsulibs.wsu.edu/>
- CACD, Center for Advising and Career Development, <http://www.cacd.wsu.edu/>
- Office of Student Conduct, <http://conduct.wsu.edu>
- Counseling and Testing Services, <http://counsel.wsu.edu/>
- Academic Integrity, <http://academicintegrity.wsu.edu>

WSU Reasonable Accommodation Statement

Students with Disabilities: Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building, Room 217) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center. For more information contact a Disability Specialist: 509-335-3417

- <https://accesscenter.wsu.edu/>

Plagiarism and Cheating Policy (www.conduct.wsu.edu/)

Academic dishonesty of any kind or degree will not be tolerated. Academic integrity will be strongly enforced in this course. Any student caught cheating on any assignment will be given an F grade for the assignment and will be reported to the Office Student Standards and Accountability. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that you read and understand these definitions <https://conduct.wsu.edu/policies/>. Please use these resources to ensure that you don't inadvertently violate WSU's standard of conduct.

WSU Safety Information

Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors. It is highly recommended that you review that Campus Safety Plan <https://safetyplan.wsu.edu/> and visit the Office of Emergency Management website (<https://oem.wsu.edu/>) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and

the health and welfare of the campus community.

Important Dates:

Synthesis: during class time	Tests: (open at 6:00 a.m., close at 11:59 p.m.)
Synthesis 1 – Wed. Sept 4 th	Test 1 – Fri. Sept. 6
Synthesis 2 – Mon. Sept. 16	Test 2 – Wed. Sept 18
Synthesis 3 – Mon. Sept. 30	Test 3 – Wed. Oct. 2
Synthesis 4 – Mon. Oct. 14	Test 4 – Wed Oct. 16
Synthesis 5 – Mon. Oct. 28	Test 5 – Wed. Oct. 30
Synthesis 6 – Fri. Nov. 8	Test 6 – Tue. Nov. 12
Synthesis 7 – Wed. Nov. 20	Test 7 – Fri. Nov. 22
	Test 8 – Tuesday. Dec. 10 (3:10 – 5:10)

Topic Essay:
Information search assignment: due Nov. 8 th
Topic Essay: due Nov. 15

Topics for Hort/Crops 102:

- Domestication of plants
- Ag and anthropology
- Ag classifications
- Plant classification/nomenclature
- Intro to plant tissues/monocot ,dicot
- Leaves , stems, roots, flowers, fruit
- Influence of: light, climate and temp, Precipitation/water
- Pl. biochemistry
- Intro to inheritance
- Topic paper discussion
- soils and fertility
- Plant breeding and genetics
- disease
- Production systems
- Harvest, post-harvest, marketing

Speakers for Hort/Crops 102: (possibly more)

Dr. Michelle Moyer (tricit)	viticulture
Dr. Lindsey du Toit (Mt.Vern)	vege seed production
Dr. Kate Evans (tricit)	Apple breeding
Dr. Lisa de Vetter (Mt. Ver)	small fruits
Dr. Lynn Carpenter Boggs	soil systems - sustainable
Dr. Michael Neff	Gmo's
Jock Demme	Nursery industry (Iseli Nursery)

