

# Introduction to Cultivated Plants

Hort/Crop Science 102 (3 credits) - Fall 2017

## Class Time and Place

MWF 11:10 – 12:00

Pullman – The Spark Building G-45

Tri-Cities (via AMS) – Wine Science Center Tri-Cities 202

## Instructor

Carol Kawula

Senior Instructor - Horticulture

Johnson Hall 101

Office Hours: Mon, Wed, 3:00 – 4:00pm and by appointment

[carol.kawula@wsu.edu](mailto:carol.kawula@wsu.edu)

## Teaching Assistants:

### *Pullman campus:*

Yvonne Manning Thompson [Yvonne.manning@wsu.edu](mailto:Yvonne.manning@wsu.edu)

Thiel Lehman [Thiel.Lehman@wsu.edu](mailto:Thiel.Lehman@wsu.edu)

### *Tri-Cities:*

Robb Zimmer [Robb.zimmer@mac.com](mailto:Robb.zimmer@mac.com)

## 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, weed science, climatic influences on plants, plant metabolism, 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 Entomology departments 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.
- Morphologically identify 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 plants.
- 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. Examinable content is generally taken from lectures and lecture notes.

## 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.

## Distance Learning – video conferencing

- Lectures will be recorded live from the Pullman campus Spark building and video streamed to the Tri-Cities campus. Robb Zimmel will be present to facilitate discussion and group work, and to help to communicate with the course instructor.

## “Blackboard” - Online Course Supplement

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

## Grading:

- Course grades will be based upon 870 total points. (This number may be adjusted at the end of the semester)

39 Attendance quizzes	@ 5 points	= 195 points	(two lowest grades are dropped)
8 Online tests	@ 50 points	= 400 points	(lowest grade dropped)
7 Synthesis Activities	@ 25 points	= 175 points	
1 Topic Essay	@ 100 points	= 100 points	
	<b>Total</b>	<b>870 points</b>	

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%		

- **Attendance quizzes: (195 points total)**
  - 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.
  - Attendance quizzes will be given each day. The time of the quiz will vary and quizzes will be accessed through blackboard . It will be important to que up blackboard before class begins. If you do not have a device to access blackboard, you may use pen and paper.
  - your lowest 2 quizzes will be dropped at the end of the semester.
- **Synthesis Activities (7 assignments, 25 points per assignment)**

Prior to online tests, a synthesis period is offered to 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 serve as a study guide for the test while developing interpersonal communication and peer collaboration skills.
- **Online tests ( 8 tests, 50 points per test)**
  - An online test will be given every 1 ½ - 2 weeks of the semester. Tests are taken on Blackboard.
  - The tests will be made available shortly after a review (synthesis) period and must be completed by 11:55pm on the assigned date
  - Tests are usually 45 minutes. The tests are formatted as multiple-choice, multiple-select, short answer, and matching 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. If you have technical difficulties you Must e-mail the instructor immediately.
- **Topic Essay/Speaker Summary (100 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. They then write an academic research paper. The speaker summary is **due Nov 6th** 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 minimum of two scholarly sources (reference/citation) are required for the speaker summary.
  - A more detailed set of guidelines and instructions for speaker summaries can be accessed on Blackboard.

### Office Hours:

- Carol Kawula : drop-in Monday, Wednesday 3:00–4:00pm or by appointment.( By appt: please email me at [carol.kawula@wsu.edu](mailto:carol.kawula@wsu.edu) with two preferred times)
- Teaching assistants are available for office hours by appointment. Please email them if you would like to set up a time to meet.
- Instructor and TA's 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 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 for note-taking only.
  - 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/](http://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.

## Topics for Hort/Crops 102:

- domestication of plants
- Ag and anthropology

- Ag classifications
- Plant classification/nomenclature
- Intro to plant tissues/mon,dic
- Leaves ,
- stems
- roots,
- flowers/fruit
- light influence
- climate and temp influence
- Precipitation/water influence
- pl. biochemistry
- intro to inheritance
- paper discussion/
- soil intro
- soils and fertility
- Plant breeding and genetics
- weeds
- disease
- Considerations for production
- Harvest, post-harvest, marketing
- crop production - 3 F's
- forage crop production
- vegetable, fruit and nut production
- nursery and floriculture production

### Speakers for Hort/Crops 102:

Dr. Mark Swanson	forestry
Dr. Michelle Moyer (tricity)	viticulture
Dr. Lindsey du Toit (mt.vern)	veggie seed production
Dr. Kevin Murphy	alternate crops
Dr. Kate Evans (tricit)	Apple breeding
Dr. Lisa de vetter (Mt. Ver)	small fruits
Dr. Arron Carter	wheat breeding/ genetics
Dr. Lynn Carpenter Boggs	soil systems - sustainable
Dr. Michael Neff	Gmo's