

Term Information

Effective Term Autumn 2016
[Previous Value](#) [Spring 2013](#)

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

Creating a hybrid offering for this course. Content not changing. In-Person class still being offered.

What is the rationale for the proposed change(s)?

To make the class accessible to a different audience and provide flexibility in scheduling. A hybrid option will allow students to view lectures at convenient times and permit review of presentations; the in-person labs facilitate hands on instruction and provide an opportunity for integration with peers and instructors as well as stimulate discussion.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

There are no programmatic changes. The course already exists within the program.

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Horticulture and Crop Science
Fiscal Unit/Academic Org	Horticulture & Crop Science - D1127
College/Academic Group	Food, Agric & Environ Science
Level/Career	Undergraduate
Course Number/Catalog	2201
Course Title	Ecology of Managed Plant Systems
Transcript Abbreviation	Ecol Manag Plt Sys
Course Description	Origin, diversification, and biogeography of plants inhabiting managed landscapes.
Semester Credit Hours/Units	Fixed: 4

Offering Information

Length Of Course	14 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Yes
Is any section of the course offered	Greater or equal to 50% at a distance
Previous Value	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Laboratory, Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites
Exclusions

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	01.1102
Subsidy Level	Baccalaureate Course
Intended Rank	Freshman, Sophomore, Junior, Senior
<i>Previous Value</i>	<i>Freshman, Sophomore, Junior</i>

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Biological Science

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Students will be able to recognize the characteristics of representative families and genera found in croplands, forests, and urban/suburban landscapes.
- Students will be familiar with the basic principles and major concepts of taxonomy, phylogeny, evolution and speciation as they relate to crops, ornamental plants, and weeds.
- Students will comprehend how and why biodiversity in managed ecosystems changes over space and time and the consequences of those changes.
- Students will understand the ecological basis for sustainable practices in managed ecosystems.

Content Topic List

- Classification and systematics
- Basic genetics and breeding
- Population genetics and evolution
- Origins and evolution of domesticated plants
- Preservation of genetic diversity
- Climate and weather
- Structure of managed ecosystems
- Interactions between organisms in managed ecosystems
- Invasive species
- Climate change and its impact on managed ecosystems
- Economic botany

COURSE CHANGE REQUEST
2201 - Status: PENDING

Last Updated: Neal,Steven Michael
10/13/2015

Attachments

- HCS 2201 - Hybrid Development Syllabus.docx: Syllabus

(Syllabus. Owner: Luikart,Meredith Marie)

Comments

- Please make the changes to the syllabus requested by COAA. *(by Neal,Steven Michael on 10/13/2015 10:46 AM)*
- Tentative Revised Syllabus -Hybrid Version is attached. *(by Luikart,Meredith Marie on 09/01/2015 03:07 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Luikart,Meredith Marie	08/24/2015 04:01 PM	Submitted for Approval
Approved	Barker,David John	08/24/2015 04:18 PM	Unit Approval
Revision Requested	Neal,Steven Michael	09/01/2015 02:35 PM	College Approval
Submitted	Luikart,Meredith Marie	09/01/2015 03:08 PM	Submitted for Approval
Approved	Metzger,James David	09/01/2015 03:09 PM	Unit Approval
Revision Requested	Neal,Steven Michael	09/15/2015 12:51 PM	College Approval
Submitted	Luikart,Meredith Marie	09/17/2015 09:42 AM	Submitted for Approval
Approved	Jourdan,Pablo Samuel	09/18/2015 02:31 PM	Unit Approval
Revision Requested	Neal,Steven Michael	10/13/2015 10:46 AM	College Approval
Submitted	Luikart,Meredith Marie	10/13/2015 11:01 AM	Submitted for Approval
Approved	Metzger,James David	10/13/2015 11:10 AM	Unit Approval
Approved	Neal,Steven Michael	10/13/2015 11:59 AM	College Approval
Pending Approval	Nolen,Dawn Vankeerbergen,Bernadette Chantal Hanlin,Deborah Kay Jenkins,Mary Ellen Bigler Hogle,Danielle Nicole	10/13/2015 11:59 AM	ASCCAO Approval



SYLLABUS: HCS 2201 – HYBRID FORM AND FUNCTION IN CULTIVATED PLANTS SPRING 2016

Course overview

Instructor

Instructor: Dr. Dave Barker

Email address: barker.169@osu.edu

Phone number: 614-247-6258

Office hours: By appointment

Course description

Origin, diversification, and biogeography of plants inhabiting managed landscapes. *Lectures will be presented online and Labs will take place in-person. There will be three 55 minutes lectures per week. Students should allow for additional time for background reading and studying. Labs are 1 hour 50 minutes segments per week. Mid-term and final exams will be conducted in live in-person lab sections.*

Course learning outcomes

By the end of this course, students should successfully be able to:

GE Goals & Objectives Courses in the Natural Sciences foster an understanding of the principles, theories and methods of modern science, the relationship between science and technology and the effects of science and technology on the environment.

GE Goals: Students understand:

- the principles, theories, and methods of modern science,
- the relationship between science and technology,
- the implications of scientific discoveries and the potential of science and technology to address problems of the contemporary world..

GE Learning Outcomes:

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students understand key events in the development of science and recognize that science is an evolving body of knowledge.
3. Students describe the inter-dependence of scientific and technological developments.
4. Students recognize social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.

How the course addresses the GE objectives: Students enrolled in HCS 2201 meet the GE Natural Science Learning Objectives in multiple ways. This course provides an introduction to the complex interaction of plants, other organisms (including humans), and their environment. Students gain an understanding of the foundations of modern plant science by studying plant diversity, ecological relationships within and among species, and the evolutionary forces that shape plant form and function. Laboratory activities reinforce the biological concepts introduced in lecture, but also learn scientific reasoning and methods. Students enrolled in HCS 2201 learn details of the interrelationship between technology and scientific methods in modern plant science, and gain an appreciation of the social and philosophical ramifications of the knowledge of biology through the study of the history of key discoveries in plant science.

Course Learning Objectives: Upon successfully completing HCS 2201, students will

1. Be able to recognize the characteristics of representative families and genera found in croplands, forests, and urban/suburban landscapes.
2. Be familiar with the basic principles and major concepts of taxonomy, phylogeny, evolution and speciation as they relate to crops, ornamental plants, and weeds.
3. Comprehend how and why biodiversity in managed ecosystems changes over space and time and the consequences of those changes.
4. Understand the ecological basis for sustainable practices in managed ecosystems.

How the course learning objectives address program learning objectives: H&CS 2201 integrates fundamentals of physical and biological sciences in the context of sustainable plant systems (Dept. Objective 2), introduces concepts in translational plant science (Dept. Objective 3), introduces students to the ecological basis of sustainability and sustainable practices (Dept. Objective 4), and instills appreciation for the necessity of life-long learning and using evaluation and synthesizing skills (Dept. Objective 7).

Course materials

Supplemental materials

There are various suitable texts (optional)

1. Plant Science – Growth Development and Utilization of Cultivated Plants 5th ed. McMahon, Kofranek & Rubatzky. Publ. Prentice Hall
2. Ecological Principles of Agriculture. Powers & McSorley. Publ Delmar
3. Plants and People. James D. Mauseth. Jones & Bartlett Publishers. 2012
4. Crop Ecology – productivity and management in agricultural systems. Loomis and Connor. Cambridge Univ. Press.

Course technology

Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Carmen

Technology skills necessary for this specific course

- CarmenConnect text, audio, and video chat
- Collaborating in CarmenWiki
- Recording a slide presentation with audio narration
- Recording, editing, and uploading video

Necessary equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed
- Microphone: built-in laptop or tablet mic or external microphone

Grading and faculty response

Grades

Assignment or category	Points
Examinations	50%

In-Person Labs	50%
Total	100

See course schedule, below, for due dates

Late assignments

Examinations (50%): One half of your final grade will be based on two exams. One of these exams will be 55 minutes long and will be held during the 7th week of the semester. This exam will be worth 20% of your final grade. The second exam will be a comprehensive final that will be held during scheduled final time. The second exam is worth 30% of your final grade. Exam questions will be short answer and essays and will be derived from lectures and the reading material. Make-up exams will be given only for a reasonable excuse.

Accepted excuses are limited to personal illness, death in the family, or other problems beyond your control.

In-Person Labs (50%): The other half of your final grade will be based on laboratory exercises. The lab emphasizes learning representative families and genera of conifers and flowering plants. There are three components to your laboratory grade:

Plant collection (15%) - An original collection of 15 dried, pressed and identified plant specimens is required from each student. Each plant should have an identified 'production' value (crop, turf, ornamental). The collection should include plants from at least 8 families. The collection is due in the week after the midterm exam. The TA will grade the collection on the basis of correctness of identification, preparation of material, and labeling. More detailed information will be provided to you at the first lab.

Laboratory reports (20%) - Labs will have 10 works sheets during the semester - totaling 20% of the final grade. Work sheets will include drawings, diagrams, graphs, tabulated data, or short answer questions.

Experiment Report (15%) - One of the greenhouse projects should be written in scientific format (Introduction, Methods, Results Discussion)

The laboratory exercises are designed to reinforce concepts presented in lecture, and so they form an important component of your learning experience. As such, attendance to the laboratories is mandatory and students will be unable to make up missed activities. If an emergency arises that necessitates missing a lab, timely notification must be provided to me (not the TA!). Accepted excuses must be verifiable and are limited to personal illness, death in the family, or other problems beyond your control.

Grading scale

93–100: A

90–92.9: A-

87–89.9: B+

83–86.9: B

80–82.9: B-

77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E

Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

Grading and feedback

For large weekly assignments, you can generally expect feedback within **7 days**.

E-mail

I will reply to e-mails within **24 hours on school days**.

Discussion board

I will check and reply to messages in the discussion boards every **24 hours on school days**.

Attendance, participation, and discussions

Student participation requirements

Because this is a distance-education course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Logging in: AT LEAST ONCE PER WEEK**
Be sure you are logging in to the course in Carmen each week, including weeks with holidays or weeks with minimal online course activity. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **Office hours: OPTIONAL OR FLEXIBLE**
My office hours are optional. If you wish to discuss an assignment with me, please contact me at the beginning of the week if you need a time outside my scheduled office hours.
- **Participating in discussion forums: 2 TIMES PER WEEK**
As participation, each week you can expect to post at least two times as part of our substantive class discussion on the week's topics.

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Other course policies

Academic integrity policy

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

Academic misconduct is any activity that tends to compromise the academic integrity of the university, or subvert the educational process. Examples of academic misconduct include, but are not limited to:

1. Violation of course rules as contained in the course syllabus or other information provided to the student; violation of program regulations as established by departmental committees and made available to students;

2. Knowingly providing or receiving information during examinations such as course examinations and candidacy examinations; or the possession and/or use of unauthorized materials during those examinations;
3. Knowingly providing or using assistance in the laboratory, on field work, in scholarship or on a course assignment;
4. Submitting plagiarized work for an academic requirement. Plagiarism is the representation of another's work or ideas as one's own; it includes the unacknowledged word-for-word use and/or paraphrasing of another person's work, and/or the inappropriate unacknowledged use of another person's ideas;
5. Submitting substantially the same work to satisfy requirements for one course or academic requirement that has been submitted in satisfaction of requirements for another course or academic requirement, without permission of the instructor of the course for which the work is being submitted or supervising authority for the academic requirement;
6. Falsification, fabrication, or dishonesty in creating or reporting laboratory results, research results, and/or any other assignments;
7. Serving as, or enlisting the assistance of a substitute for a student in the taking of examinations;
8. Alteration of grades or marks by the student in an effort to change the earned grade or credit;
9. Alteration of academically-related university forms or records, or unauthorized use of those forms or records; and
10. Engaging in activities that unfairly place other students at a disadvantage, such as taking, hiding or altering resource material, or manipulating a grading system.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Accommodations for accessibility

Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability qualified under the Americans with Disabilities Act

and Section 504 of the Rehabilitation Act of 1973, contact your instructor privately as soon as possible to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the Office for Disability Services at [614-292-3307](tel:614-292-3307) or ods@osu.edu to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University.

Go to <http://ods.osu.edu> for more information.

Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- [Carmen \(Desire2Learn\) accessibility](#)
- Streaming audio and video
- Synchronous course tools

Course Topics

ONLINE LECTURE TOPICAL OUTLINE

	Topic	Text Reading
		McMahon 5 th ed
	Unit I: Introduction to Agroecology	Chapter 1 (p 2-16)
Plant Domestication	Unit II: Basic Genetics & Breeding	Chapter 9 (p 158-167)
	Unit III: Classification & Systematics	Chapter 10 (p 198-199)
	Unit IV: Origins & Evolution of Domesticated Plants	Chapter 10 (p 205-214)
	Unit V: Plant variation & Cultivars	Chapter 10 (p 215-219)
	Unit VI: GMOs	Chapter 9 (p 166)
	Unit VII. Agricultural Experimentation	Chapter 1 (p 11-15)
Abiotic	Unit VIII: Climate and Weather Systems	Chapter 4 (p 45-47)

	Unit IX: The Plant Environment	Chapter 4 (p 48-56)
	Unit X: Nutrients & Soil	Chapter 5 (p 62-76) Chapter 13 (p251-264)
Biotic Factors	Unit XI: Interactions Between Organisms (competition, insects, disease, weeds)	Chapter 15 (p 296-339)
Production Systems	Unit XII: Structure of Managed Ecosystems	Chapter 2 (p 17-32)
	Unit XIII: Plants and People	Chapter 3 (p 33-44)

Course In-Person Lab Schedule (tentative)

In-Person LAB	Topic
1	Lab Introduction and Overview, Competition/Coexistence Lab set up
2	Set up Mutualism Lab
3	Set up Seed Bank Study
4	Climate
5	Soil and Pesticides
6	Greenhouse Climate Controls
7	Conventional and Alternative Taste Testing
8	Seed bank Harvest
9	Mutualism Harvest
10	Competition Harvest