Instructor: Pamela J. Sherratt
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Teaching Associate: Arly Drake Email: drake.271@osu.edu

Course Description: Study of the cultural, environmental, genetic, and social/cultural factors which influence the sustainable production of plants for food, fiber, ornamental and recreational uses.

Lectures: Tuesday & Thursday 3:55 pm – 5:15 pm in 103 Kottman Hall.
Dates: 1/13/15 to 4/28/15
Final examination: Commencing 4/29/15- 5/5/15


Class Materials: HCS 2200 lecture notes, video links and other materials will be posted on CARMEN (Carmen.osu.edu) prior to the class in which they will be needed.

GE Goals & Objectives
As a GE Natural Science Course, HCS 2200 should contribute to the expectations laid out in the curriculum. Students gain understanding of 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.

Expected 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 recognize social and philosophical implications 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 GEC objectives:
Students enrolled in HCS 2200 meet the GEC Natural Science Learning Objectives in multiple ways. This course provides an integrated introduction to the complex interaction of plant structure, physiology, and the 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. Students enrolled in HCS 2200 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.

Specific 2200 Course Goals and Learning Objectives:

- Analyze and describe the fundamental concepts of successfully growing plants.
- Evaluate how environmental, economic, social, and other factors interact and influence why and how plants are grown.
- Describe how the interactions of the components of stable natural ecosystems can be used to create successful, sustainable ecosystems of crops, landscapes, golf courses, and athletic fields.
- Evaluate the role plants play in our lives and describe many of the specific plants that fill those roles.
- Be able to apply what is learned in this class to other classes and toward success in their careers or for greater enjoyment of an avocation.

2200 Content Topic List:

- Introduction: Why study the growing of plants, the value of growing plants, the history of growing plants and nomenclature.
- Plant science research
- Climatic factors that affect plant growth
- The ecological basis of plant growth including how human activity affects our ecological footprint
- Plant Anatomy: Vegetative and reproductive structures, flowers, fruits, and classifications of plant anatomy
- Genetic Resources: Sexual and asexual reproduction, Diversity, breeding strategies, genetically modified plants.
- Carbon Flow: Photosynthesis and Respiration
- Soils
- Crop Mineral Nutrition
- Pests and Diseases: Integrated Pest Management (IPM)
- Plant Growing Systems: Conventional, Organic, Sustainable
Assessment of Learning:  

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<tr>
<th>Criteria</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class/Carmen activities</td>
<td>30</td>
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<tr>
<td>Midterms</td>
<td>20</td>
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<tr>
<td>Final Exam</td>
<td>25</td>
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<td>Assignments</td>
<td>20</td>
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<tr>
<td>Self evaluation</td>
<td>5</td>
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<td>Total</td>
<td>100</td>
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Grading:
Letter grades are assigned according to the following percentage distribution of the points earned throughout the quarter.

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<thead>
<tr>
<th>Grade</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<td>B+</td>
<td>88-89</td>
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<tr>
<td>C+</td>
<td>78-79</td>
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<td>D+</td>
<td>68-69</td>
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<td>A-</td>
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<td>B</td>
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<td>C</td>
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<tr>
<td>D</td>
<td>60-67</td>
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<tr>
<td>E</td>
<td>&lt;60</td>
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Make-up Activities and Exams: If you cannot come to class on the presentation day because of an acceptable and verifiable excuse (note from interviewer, professor leading a field trip, Dr.’s excuse, police report of accident, etc.), you will be able to turn in your project and accompanying information card at a time arranged with the instructor or TA. Otherwise, you cannot make up the activity.

Self-Evaluation: Each student is required to write a self-assessment of the effort given to the class. You can think of this as a warm-up exercise to the annual reports you will most likely have to write for your employer. The assessment is a comparison of the effort you know you should have put forth to that which you actually did. I realize that you have commitments outside the classroom and you have to allocate your time and effort among many different components of your lives. I am not expecting you to tell me you devoted your entire life to the class (if you did, I’d be very concerned!). I am expecting you to tell me how much effort of what you could and should have devoted that you actually put forth. From that comparison you will assign yourself a numeric grade for your effort such as 100%, 97%, 90%, or, if you totally blew off the class something like 55%. The rest of the report will justify your self-assigned effort grade and will consist of a narrative description of the kinds of effort you expended (e.g. attendance, activity participation, contributing to discussions, test preparation and performance, etc.) and what you accomplished as a result of that effort. If I feel you have significantly over- or underestimated your effort, I reserve the right to make an appropriate adjustment (after letting you know what I’ve done and why I did it and giving you the chance for rebuttal).

Attendance: Students are strongly encouraged to attend all lectures. The lecture notes posted on CARMEN are meant to serve as outlines for the more in depth material presented in class. If you miss a class without an acceptable excuse, I encourage you to negotiate with other students who did attend to get their notes as all information presented in class can be included in the examinations. Please try to arrive on time and not leave early to avoid interrupting the class and instructor. If you have a recurring conflict that causes chronic lateness or need to leave early, let the instructor know.
Class participation: Although the instructor assumes responsibility for most of the instruction in this class, each student brings relevant personal experience (life or classroom) to the subject matter. Students are asked to share these experiences if they feel comfortable in doing so. There is typically a wide range of interests and academic rank among the students in HCS 2200. Therefore, students who are further along in the HCS majors are encouraged to provide assistance to those students less advanced in plant-related majors or from non-HCS majors.

Students with Disabilities: Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately at the beginning of the quarter to discuss your specific needs. We will work with the Office for Disability Services at 614-292-3307 in room 150 Pomerene Hall to coordinate reasonable accommodations for you. Temporary disabilities that result from injury or illness will be accommodated as needed.

Code of Conduct: In HCS 2200, courtesy and respect for others will be given by all participants in the class (including instructors, teaching assistants and guests) at all times. Respect includes paying attention and not using cell phones and other electronic devices etc. and not talking or otherwise causing a distraction when the instructor or someone else is speaking. An environment that fosters free, non-confrontational expression of ideas will be maintained. HCS 2200 is a class that puts the student in situations where individual and, at times, team effort is required. Students will put forth the appropriate kind of effort for each situation. Academic misconduct such as plagiarism, cheating, and other dishonest practices will not be tolerated. Any instances of student misconduct or suspected academic misconduct will be handled according to policies of the Code of Student Conduct in the Student Handbook or Faculty Rule 3335-5-487.