Instructor: Rebecca L. Darnell  
1131 Fifield Hall  
392-4711 x 224  
e-mail: rld@ufl.edu

Course Description:

A "topics" course, combining lectures and student discussions of literature, to give an in-depth view of selected areas in woody plant physiology.

Course Objectives:

To provide students with a knowledge base in selected areas of woody plant physiology; to provide an opportunity for students to critically analyze research problems and approaches.

Course Format:

Introductory lectures will be given on the selected topics. Lectures will be followed by a discussion day, where students will present and discuss previously assigned papers dealing with that topic. Specific questions on each paper will be handed out with the paper. These questions must be answered and turned in on the discussion day.

Course Grading:

Grading will be based on:  
- Mid-term: 25%  
- Final exam: 25%  
- Discussion questions: 15%  
- Class discussion: 35%

Prerequisites: BOT 3503 or equivalent Plant Physiology course.

Text: There is no text for this course. Reading lists for each topic will be handed out.
ACADEMIC HONESTY, SOFTWARE USE, UF COUNSELING SERVICES, SERVICES FOR STUDENTS WITH DISABILITIES

In 1995 the UF student body enacted a new honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students.

In adopting this honor code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the university community. Students who enroll at the university commit to holding themselves and their peers to the high standard of honor required by the honor code. Any individual who becomes aware of a violation of the honor code is bound by honor to take corrective action. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the honor code.

The Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

On all work submitted for credit by students at the university, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean or Student Honor Court.

(Source: 2007-2008 Undergraduate Catalog)

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor.

This policy will be vigorously upheld at all times in this course.

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or
criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

**Campus Helping Resources**

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university’s counseling resources. Both the Counseling Center and Student Mental Health Services provide confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health Services is located on the second floor of the Student Health Care Center in the Infirmary.

- *University Counseling Center*, 301 Peabody Hall, 392-1575, [www.counsel.ufl.edu](http://www.counsel.ufl.edu)
- *Career Resource Center*, CR-100 JWRU, 392-1602, [www.crc.ufl.edu](http://www.crc.ufl.edu/)
- *Student Mental Health Services*, Rm. 245 Student Health Care Center, 392-1171, [www.shcc.ufl.edu/smhs/](http://www.shcc.ufl.edu/smhs/)

  - Alcohol and Substance Abuse Program (ASAP)
  - Center for Sexual Assault / Abuse Recovery & Education (CARE)
  - Eating Disorders Program
  - Employee Assistance Program
  - Suicide Prevention Program

**Students with Disabilities**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues.

0001 Reid Hall, 392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)
Topics (tentative outline)

I. Dormancy/chilling
   A. Types of dormancy
   B. Chilling requirement
   C. Dormancy onset and release
      1. Environmental
      2. Endogenous
   D. Molecular regulation

II. Source-sink relations
   A. Carbohydrate partitioning
      1. Source allocation and regulation
      2. Sink allocation and regulation
   B. Source-sink effects on photosynthesis
   C. Seasonal carbohydrate partitioning
   D. Nitrogen uptake and partitioning
   E. Seasonal nitrogen partitioning

III. Light relations in the tree canopy
   A. Phytochrome, photomorphogenesis, photoperiodism
   B. Light intensity vs light quality responses

IV. Water relations (whole-plant)
   A. Water use efficiency
   B. Drought
   C. Flooding
   D. Deficit irrigation
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<tbody>
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<td>Introduction</td>
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<td>9/4</td>
<td>Dormancy/chilling</td>
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<td>Example of critical analysis</td>
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<td>9/11</td>
<td>Discussion - Dormancy/chilling</td>
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<td>9/18</td>
<td>Discussion - Dormancy/chilling</td>
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<td>9/25</td>
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<td>10/9</td>
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<td>Take-home midterm - due 10/16</td>
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<td>Light relations</td>
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<td>Discussion</td>
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