PCB 6528
Plant Cell and Developmental Biology (Formerly Plant Molecular Biology)
Spring 2012; MWF 3rd period; Fifield Hall 2318

Instructors:

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Instructor contact hours: Instructors are available to assist students on an individual basis by appointment.

Prerequisites: PCB 5065 and PCB 5530 or equivalent

Reading: There is no required textbook for this course. However, there will be lots of required reading in the form of review and research articles from the primary literature. These will be provided in electronic format. Each section of the course will feature a discussion paper from the current literature. The following books may be useful for background reading on various topics.


Course Objective: The objective of this course is for students to obtain a basic knowledge of the organization, dynamics, and development of plant cells and organs. Students should additionally learn the experimental approaches commonly used in plant cellular and developmental biology research and critically evaluate literature that forms the basis for current knowledge in these fields.

Class Attendance: Students are expected to attend all class sessions. Attendance at sessions featuring a Discussion Paper is mandatory.

Grading Policy: The final grade will be determined by the performance on 4 sections each worth 100 points. Non-cumulative examinations will be given for each section. Homework will be assigned and graded. Active participation in class discussions of research papers is an essential part of this course and is mandatory. The instructor of each module will communicate their breakdown of points among participation in lecture discussions, paper discussions, homework, and exams. These guidelines are in agreement with UF grading policy as described https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx#hgrades

Exams: The course is divided into four sections with an exam following the completion of each section (see schedule). Exams will be either in-class closed book and closed notes or take home at the discretion of the instructor. If a student has another exam scheduled for the time of a PCB 6528 exam, or if a PCB 6528 exam falls on a religious holiday that a student traditionally observes, an alternate time will be arranged for that student's exam. Please notify the instructor of these conflicts in advance of the exam! Students who cannot take a scheduled exam due to illness or last-minute emergencies should contact the instructor prior to the exam if at all possible! Arrangements will be made for a makeup exam in those cases.

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<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Topic</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>January</td>
<td>M9,W11</td>
<td>Cell architecture and the origins of the organelles</td>
<td>Cline</td>
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<td></td>
<td>F13</td>
<td>Discussion paper 1</td>
<td>Cline</td>
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<td></td>
<td>M16</td>
<td>Martin Luther King, no class</td>
<td>Cline</td>
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<td></td>
<td>W18</td>
<td>Organelles and trafficking in the secretory system</td>
<td>Cline</td>
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<tr>
<td></td>
<td>F20</td>
<td>Discussion paper 2; Organelles and trafficking in the secretory system</td>
<td>Cline</td>
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<td></td>
<td>M23</td>
<td>Plastids and mitochondria; polar lipid trafficking</td>
<td>Cline</td>
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<td></td>
<td>W25</td>
<td>Plastids and mitochondria; protein trafficking</td>
<td>Cline</td>
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<td></td>
<td>F27</td>
<td>Discussion paper 3; chloroplast protein trafficking</td>
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<tr>
<td></td>
<td>M30</td>
<td>Plastids and mitochondria; division, fission and fusion</td>
<td>Cline</td>
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<td>February</td>
<td>W1</td>
<td>Discussion paper 4; plastid division</td>
<td>Cline</td>
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<td>Th2</td>
<td>Exam 1; Evening Exam</td>
<td>Cline</td>
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<td></td>
<td>M6</td>
<td>Cytoskeleton</td>
<td>Settles</td>
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<td></td>
<td>W8</td>
<td>Cell Wall</td>
<td>Settles</td>
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<tr>
<td></td>
<td>F10</td>
<td>Cytokinesis</td>
<td>Settles</td>
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<tr>
<td></td>
<td>M13</td>
<td>Discussion Paper</td>
<td>Settles</td>
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<tr>
<td></td>
<td>W15</td>
<td>Organelle genomes I</td>
<td>Chase</td>
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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

- Career Resource Center, CR-100 JWRU, 392-1602, 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/)