

Introduction to Plant Biology 16:765:501, Fall 2011

Mondays and Wednesdays, 10:55 a.m.--12:15 p.m.

Room 138B Foran Hall, Cook College

Course Coordinator: Dr. Ning Zhang, Foran Hall, Room 201B zhang@aesop.rutgers.edu

Office hour: Wednesday 1:30-3:10 pm, or by appointment

Course Web Site: All course materials will be posted on the web site at <http://rutgersonline.net/>. Sign in with your student ID and automatically assigned password (which you can change). Click on the course to open. If you encounter problems viewing documents with Mozilla Firefox, try Internet Explorer.

Goals of the Course

This course serves as an introduction to graduate research and the Plant Biology Graduate Program at Rutgers University. The goals of the course are to:

1. Provide examples of the types and range of research that are being conducted within the program.
2. Expose you to modern approaches being used in plant biology (and in biology, in general)
3. Help you develop approaches for surveying the scientific literature.
4. Provide tools and methods for developing your own research project.
5. Provide an opportunity to work closely with faculty to develop a research project outside of your present interests.
6. Introduce grant writing skills and resources of funding for research and graduate student fellowships.

Grade Assignment

Class Attendance and Presentation Summary	40%
<u>Research Proposal</u>	<u>60%</u>
	100%

Class Attendance: Students are expected to attend all classes. This class is a survey of many different areas in plant biology and cannot function unless you are present. For this reason, attendance at classes is mandatory for a full grade. If you cannot attend a class because of an emergency or other pressing reason, please let me know in advance, or immediately after, and you will not be penalized. No attendance grade will be given for classes missed without an adequate explanation. **If you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.** **WARNING:** If you miss three classes without good explanation then your final grade will automatically be reduced by 10% and by a further 2% for each class missed thereafter.

Faculty Presentations: Faculty will present the background and details of their area of research. The goal here is to introduce you to an area of research that you may want to work in (either during your graduate studies or afterwards) and also expose you a larger world-view of biology. These talks will familiarize you with the kinds of research tools and approaches that can be taken to address a specific question in plant biology. Students can use these presentations to help develop their own research proposals (see below).

For each presentation, you will write a **summary** or what you learned from the presentation that day and turn in to Dr. Zhang **at the beginning of next class**. Late summaries are not accepted without a legitimate reason. The summary should be **printed**, from a paragraph to a page, or anywhere in between.

Research Proposal: One of the most critical skills to develop is the ability to read the scientific literature and quickly identify what experiments should and can be done next. In this assignment students will identify a single research topic based on scientific articles published in the last a few years. The article and proposed research topic should have some relationship to the topics presented in class by the faculty. Students will work closely with course faculty to identify an article and develop their project, which will involve a series of 'milestones' leading up to the final research proposal. This proposal will be turned in near the end of the semester and will contribute 60% of the final grade.