Botany SI2104 - Plant Form and Function -Spring 2010

Prerequisites: none
Lecture/Lab: MWF 10:30-12:20
Instructor: Dr. S. Harley Office: SL409M, 626-7434; Office hours: MWF 9:00-10:20, or by appointment; e-mail: sharley@weber.edu
Course URL: http://faculty.weber.edu/sharley/2104/2104.htm

Plant Form and Function is one of the two core courses required for all Botany majors and minors. The other course is Botany SI2114, Evolutionary Survey of Plants. The two courses are independent of each other; one is not a prerequisite for the other. If you will be taking upper division Botany courses, you should be aware that some have both 2000-level courses as prerequisites and that others only require a specific one of the two.

Plant Form and Function is a 4 credit hour course which meets in three 2-hour blocks per week. Lab activities are integrated with lecture information. You will spend approximately 2-3 hours per week in lecture time and 3-4 hours per week in activities. The first part of the course will go into the details of internal plant anatomy, including subcellular structures. The second part of the course material will cover plant metabolism (respiration and photosynthesis), mineral nutrition, and sexual and asexual reproduction.

Required texts and materials:
The following items are available at the WSU Bookstore: 30 cm ruler, safety glasses, colored pencils, and a calculator. (Safety glasses are also available from Chemistry stores on the 5th floor of the Science Lab Building.)

Recommended texts:
Writing Papers in the Biological Sciences, any edition, by V. E. McMillan. This text is required for Botany 2121.
A Photographic Atlas for the Botany Laboratory by Van de Graff et al. This text is also recommended for Botany SI2114.

Students With Disabilities
Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Services Center. SSD can arrange to provide course materials in alternative formats, if necessary.

Student Behavior
This class meets in a laboratory room. Therefore, food and drink are prohibited. Feet must be in enclosed shoes. Your clothing must cover your lap when you are seated. Safety glasses are required for lab activities in which you handle chemicals. Additional safety information will be covered on the second day of class.

You are expected to comply with the Botany Department Statement of Expectations of Students. The text of this statement can be found at http://departments.weber.edu/botany/Handbook/expectations.htm.
Your course grade will be based on the following:

**Exams:** There will be three 100 point exams and one 200 point cumulative final (~100 points old material, ~100 points new material). Of the 500 points available, only 400 will go towards the calculation of your grade. Either your lowest score on a 100 point exam will be dropped or your final exam score will be halved; whichever calculation gives you the higher grade will be used. Your exams will be a mixed format of multiple choice, short answer, essay, diagrams, and lab practical.

**Lab Activities:** You will turn in 15 of your lab activities. See the Important Dates section of this syllabus for the 11 lab exercises that you will turn in. You must be present in order to get credit. The other four activities will be case studies based on published research. The case studies will be conducted in class; you must be present in order to get credit. Each case study will be worth a maximum of 10 points.

**Essay:** One of the goals of this course is to provide support to the development of the Botany Student Portfolio. As part of the portfolio, students write an essay which addresses the core concepts in Plant Biology. For this class you are to write an essay that focuses specifically on the structure and function of the flowering plants. Further guidelines will be given during the fifth week of classes and will be available with the online version of the syllabus.

**Calculation of Final Grade:**

- Exams: 65%
- Lab activities: 25%
- Essay: 10%
- **TOTAL:** 100%

Percentages to achieve a specific grade are as follows:

- A $\geq 93\%$
- B = 83-86.9\%
- C = 73-76.9\%
- D = 63-66.9\%
- A- = 90-92.9\%
- B- = 80-82.9\%
- C- = 70-72.9\%
- D- = 60-62.9\%
- B+ = 87-89.9\%
- C+ = 77-79.9\%
- D+ = 67-69.9\%
- E $\leq 59.9\%$

Awarding of a UW grade: miss more than one regular exam OR miss the final exam OR not turn in the Essay OR turn in fewer than eight lab activities. Any plagiarism in the Essay will result in a grade of zero and reporting of the student to the Dean of Students.

**NO MAKE UP EXAMS!!  NO MAKE UP ACTIVITIES!!  NO EXTRA CREDIT!!**

**Extra Credit:** There is no extra credit in this class. (1) If you do not have time to master the content material and complete the given assignments, you certainly do not have time to do extra work. (2) It is not to fair to your classmates for you to have different criteria for your grade.
Important Dates:

Jan 15    last day to turn in “Storage Polymers of Seeds” (10 points)
Jan 18    Martin Luther King, Jr. Day - no classes
Jan 20    last day to turn in “Diffusion and Osmosis” (10 points)
Jan 25    last day to turn in “Microscopy” (10 points)
Jan 29    Exam 1
Feb 5     last day to turn in “Research Design” (10 points)
Feb 10    last day to turn in “Cell and Tissues” (10 points)
Feb 15    Presidents’ Day - no classes
Feb 17    last day to turn in “Roots” (20 points)
Feb 22    Exam 2
Mar 1     last day to turn in “Leaves” (20 points)
Mar 8     last day to turn in “Respiration” (10 points)
Mar 12    Completed draft of Essay due
          Any essay turned in after March 12 will be treated as the final version.
Mar 15-19 Spring Break - no classes
Mar 22    last day to turn in “Photosynthesis” (15 points)
Mar 26    Exam 3
Apr 2     last day to turn in “Mineral Nutrition” (20 points)
Apr 9     last day to turn in “The Flower” (10 points)
Apr 9     Final version of Essay due. Turn in the marked draft, too. (50 points)
Apr 16    Annual Botany Department Field Trip to Antelope Island State Park
          http://faculty.weber.edu/sharley/AIFT/home.htm
          class does not meet
April 21  Final Exam, 11:00-12:50
(Wednesday)

For additional information and support materials, visit the Botany 2104 Home Page:
http://faculty.weber.edu/sharley/2104/2104.htm