Plant Biology 115, Fall 2011
Study Guide for Final Exam

The final exam will be given Monday, November 21 at 10:10 a.m. Please be on time to give yourself plenty of time to finish the exam. You will have 1 ½ hours to finish. The exam will be over all of the material covered this quarter. Questions will be drawn from material discussed in lecture, material covered in the laboratories, and from textbook material listed as readings for the lectures. Emphasis will be placed on material not covered in the first two exams.

Consult the first two exams for material covered in the first 2/3 of the course. Also, consult the study guides for the first two exams. Information from those study guides may be covered on this exam. This is particularly true if that information was not covered on the first or second exams. The information that follows focuses on the last third of the quarter. The exam will include a mixture of fill-in-the-blank, multiple choice, multiple-multiple choice, identification of structures from drawings or photographs, and short-answer questions. Terminology will be stressed in evaluating your understanding of flowering plant structure and development for all aspects of the life cycle. There will be some questions that require more than simple recall of information.

Specifically, you should have a thorough understanding of the following subjects:

- Structure of the flower as it relates to organography. Be sure to be familiar with the positions of, the names of, and the functions of all of the flower parts.
- Structure and development of the microgametophyte (pollen) of flowering plants.
- Structure and development of the megagametophyte (embryo sac) of flowering plants.
- Ploidy levels of all structures and tissues associated with flowers and fruits.
- Be able to describe the process of pollination for flowering plants.
- Structure and development of the flowering plant seed (be sure to examine photos in the book).
- The process of fertilization in flowering plants.
- The A, B, C model for the genetic control of flower development.
- The definition of a fruit, and variations among fruits.
- Names and features of specific fruit types

The following list of terms should be familiar to you.

receptacle, sepal, petal, perianth, tepal, stamen, anther, filament, carpel, pistil, stigma style, ovary, superior ovary, inferior ovary, epigynous flower, perigynous flower, hypogynous flower, microspore, pollen, pollination, sperm, tube cell, megaspore, embryo sac, egg, synergid, antipodal, central cell, polar nuclei, haploid, diploid, triploid, endosperm, milky endosperm, cellular endosperm, simple fruit, aggregate fruit, multiple fruit, fleshy fruit, dry fruit, dehiscent fruit, indehiscent fruit, accessory fruit, berry, drupe pome, legume, capsule siliqua, nut, achene, pericarp.