

BSC 3402L - Experimental Biology Spring 2006

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Office Hours: by appointment

Course Goals:

This course is designed to give students first-hand experience in conducting biological research. We provide guidance on how a research question is addressed and specify the general subject in which you are to conduct research. Each of you will then design and carry out an independent research project.

The research area is Pollination Biology. This is a very broad topic and your research can be conducted on a wide range of topics and in a variety of locations. The only requirement is that the research be on some aspect of pollination biology. Please note that the research system itself is not the focus of the course: rather we want to expose you to the complete picture of how research is conceived, designed, conducted, and reported. We expect that considerably more time will be spent searching and reading the literature, planning your experiment, and writing up your results than is spent on the actual experiment.

On the last page of this handout you will find a schedule of meetings for this course. The lecture meets on Tuesday from 3:35 – 4:50 in CON 228. There are no labs in the first week of classes. Beginning in week 2, you must go to your assigned lab for approximately 2 hours per week. **Labs meet in CON 121.** *You may not attend a lab other than your assigned section.*

Text:

A package of course materials in the form of a handbook is available from Target Copy. This material is required. *A second required text entitled "Writing papers in the biological sciences" by V. E. McMillan is available from the bookstore.* Additional important information relevant to this course will be available on the class web page: <http://bio.fsu.edu/~winn/bsc3402L/>

Grading:

Your grade will be determined by three lab assignments (5 pts each), one in-class exam (15 pts), a group project write-up (10 pts), an oral presentation (10 pts) and three written assignments related to your independent project (proposal 20 pts, final report 25 pts, revised final report 5 pts) summing to a total of 100 points. The due dates can be found on the class schedule (except for lab assignments, for which your TA will assign due dates).

Students who earn 90 points or more are assured an A, 80 pt or more, B, 70 or more, C, and 60 pt or more, a D. Plus and minus grades will be assigned for grades within one percentage point of a cut-off grade. Final grades may be curved at the discretion of the instructor.

Grades for all assignments turned in late will be marked down by 10% (one letter grade) for each day past the due date.

Teaching Assistants:

The TAs are responsible for presenting the lab material, giving you advice throughout the course, and for grading your assignments and papers. Please feel welcome to make an appointment and talk to your TA whenever you need to. Your TA will give you further information on his or her availability and requirements for this course.

TA	Office	Telephone	e-mail
Pablo Munguia	CON 115	644-2678	munguia@bio.fsu.edu
Chris Oakley	CON 104	644-9822	coakley@bio.fsu.edu
Maurizio Tomaiuolo	CON 306	644-6214	mtomaiuolo@bio.fsu.edu
Sarah Tso	CON 102	644-6585	tso@bio.fsu.edu

Academic Honor Code:

Students are expected to understand and uphold the Academic Honor Code published in the Florida State University General Bulletin and in the Student Handbook. The academic honor system of FSU is based on the premise that each student has the responsibility to:

1. uphold the highest standards of academic integrity in the student's own work
2. refuse to tolerate violations of academic integrity in the university community
3. foster a high sense of integrity and social responsibility on the part of the university community.

NB: Any student who violates the academic honor code in any graded assignment or exam for BSC 3402L will receive a minimum penalty of a zero grade for that assignment, and may receive a grade of "F" for the course at the discretion of the instructor.

Americans with Disabilities Act:

Students with disabilities needing academic accommodation should (1) register with and provide documentation to the Student Disability Resource Center; (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

For more information about services available to FSU students with disabilities, contact the Student Disability Resource Center (644 – 9566; sdrc@admin.fsu.edu)

This syllabus and other class materials are available in alternative format upon request.

Schedule for BSC 3402L - Spring 2006

Week	Reading	Lecture	Lab
1 Jan 10		Course goals Scientific Method Plant reproductive biology I	NO LAB MEETING
2 Jan 17	Lecture: HB Chapter 1 - 4 Lab: HB Chapter 12	Scientific hypotheses Plant reproductive biology II	Floral biology – Lab1 Pollination syndromes Pollinators
3 Jan 24	Lecture: HB Chapter 5 &6 Lab: HB Chapter 9&13 McMillan Chapter 1 & 6	Optimal foraging Hypothesis Testing, and Experimental Design.	Scientific Literature – Lab 2 Group projects
4 Jan 31	Lecture: HB Chapter 7 Lab: HB Chapter 14	Statistics I Data , Descriptive statistics, Differences between means	Optimal foraging – Lab 3 Computer foraging exercise Group projects
5 Feb 7	Lecture: HB Chapter 8	Statistics 2 Chi-square and Measures of association	Excursion to local field sites Group projects
6 Feb 14	Lecture: HB Chapter 10 Lab: HB Chapter 11	Scientific Writing Proposals, Papers, and Citing the literature	Data analysis Group projects Student Proposals Due Feb 20
7 Feb 21		EXAM	Group Projects
8 Feb 28	Lecture: HB Chapter 11 McMillan Chapter 4	Scientific communication Scientific ethics	Group Projects Proposals must be approved by March 3
9 March 6 - 10		SPRING BREAK	SPRING BREAK
10 March 14	Lab: HB Chapter 15		NO LAB MEETING Group project write-up due In lab this week
11 March 21			NO LAB MEETING
12 Mar 28	Lecture: McMillan Chapter 3 and pg 170 - 175	Lecture meeting Group project reports by TAs	NO LAB MEETING
13 April 4	Lab:		TAs present info on talks Project report due April 7
14 April 11			Student oral presentations in lab sections
15 April 18			Revised report due Friday April 21
April 22 – 28	FINAL WEEK		NO FINAL EXAM