BIOL 4450 Senior Seminar
Fall 2011
Room 320 Cherry Emerson
Tuesday – 4:35 - 5:55 pm

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Office Hours: By appointment

Website

This course makes use of T-square (tsquare.gatech.edu). You are responsible for checking the website frequently for announcements.

Overview

The goals of this course are to allow and encourage Biology students to create, present and critique seminars and posters based upon individual research projects. Biology 4450 is a co-requisite for BIOL 4590 (Research Project Lab). Students can also choose BIOL 4699 (Undergraduate Research) or BIOL 4910 (Honors Thesis Research) instead of BIOL 4590. To be enrolled in Senior Seminar, students must be concurrently enrolled in BIOL 4590, 4699, or 4910, OR have already successfully completed BIOL 4699 or 4910 as their research experience.

Course format

Each of the five experiments will be performed over a three week period. During the first week, the relevant concepts will be presented and the class will develop a protocol to be used in the experiment by adapting standard methods posted on the course T-square site. Students are expected to keep an accurate laboratory notebook and have the necessary procedures written out in full when they arrive in class the following week. During week two, you will work in groups to carry out the experiment, analyze the data, and organize your results. During week three, students will review their findings in preparation for writing their final reports. Discussion of the next experiment will also take place at this time.

Academic integrity

All students should be familiar with their rights and responsibilities under the Georgia Tech Academic Honor Code and are expected to abide by its provisions. Academic dishonesty isn't a "victimless" crime; it interferes with instruction, damages the reputation of the Institute, and ultimately harms the perpetrator who fails to learn course material or the value of individual effort. Violations of the Honor Code (http://www.honor.gatech.edu) are taken seriously and can result in severe disciplinary action, up to and including expulsion. Prohibited conduct includes, but is not limited to: copying from another student or allowing someone to copy your work (sharing group data when completing laboratory reports is permitted, but submission of identical written work is not), using notes in any form on a quiz without the express permission of the instructor, requesting a re-grade of an assignment after altering it, submitting someone else's work as your own, or allowing your work to be submitted under another person's name.

Attendance and Participation

All students are expected to be present each week in class. (This includes being on time.) If you do not provide the instructor with a valid Georgia Tech excused absence or tardiness (see the bylaws) within 24 hours of missing a class, it will count against you. Participation will be based both on contribution to class discussions and ability to critique and ask questions of others. During the discussion sessions, participation will be scored based on the quality (not correctness) of answering questions and if you ask questions that allow for forward movement of the discussion.

Grading

Attendance and Participation*	20%

**Includes resume/cover letter writing, class discussions and any other class work.*

15 minute presentations	15%
Proposal presentations	20%
Results presentation	20%
Poster presentation	25% (Covers labs 1-5)

Final scores will be rounded to the nearest whole number, and grades will be assigned according to the following scale: 90-100% A; 80-89% B; 70-79% C; 60-69% D; <60% F

SCHEDULE (subject to change)

Date	Activity	Notes
August 23	Course Introduction	Syllabus, expectations, goals for the semester
August 30	Careers – what are they good for?	When you started at GT, what did you want to do with your life? Did you achieve that goal? What are your goals?
September 6	Resume and cover letter writing	Do you have drafts of these? You will.
September 13	**15 minute presentations, any biology topic**	Class evaluations
September 20	**15 minute presentations, any biology topic**	Class evaluations
September 27	Research proposals – what should they include?	Read and critique sample proposals
October 4	**Oral presentations – research proposals**	Class evaluations
October 11	**Oral presentations – research proposals**	Class evaluations
October 18	*Fall Break, Enjoy!*	
October 25	The results section	Read and critique results. What belongs in and what does not.
November 1	Lab Meeting – a meaningful discussion	Purpose of lab meetings, data examples
November 8	**Oral presentations – results**	Class evaluations
November 15	**Oral presentations – results**	Class evaluations
November 22	The art of poster-making	Sample posters, guidelines and helpful hints
November 29	**Research Poster Symposium**	**BYOP: Bring your own poster**
December 6	Course wrap and the road ahead. Where to go from here?	What current trends in research interest you? Bring a research article to demonstrate your motivation