

81.451 Senior Seminar in Biology – Fall 2011

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Tuesdays 1:00-2:50 pm; Location Olsen Hall 615

Course Objectives: The primary purpose of this course is for students to gain effective skills in writing a scientific paper and preparing a short and concise professional presentation.

Requirements:

1. **Attendance is mandatory!** Missing a class will result in a letter grade drop for the course, unless a valid reason for the absence is presented to the instructor BEFORE class.
2. All written assignments must be handed in on time, and must be submitted to Turnitin.com. For presentations, a tight schedule will be followed so you must be on time to class.

Overview of Course

You will be gaining experience in assembling a scientific paper that will include all of the basic components of a research article, e.g. Abstract, Introduction, Materials and Methods, Results (with Figures) and Discussion (plus literature cited). Emphasis will be on preparing clear, concise sections that are appropriate for presenting your future research. You will also assemble multiple short (5 min) oral presentations in preparation of a 15 minute presentation at the end of the course, similar to those presented at professional meetings. You will critique each other's presentations, and learn from both your mistakes and accomplishments. Your need to carefully consider your topic during the first week, and it can focus on either a general and relevant field in Biology that greatly interests you, or research that you have performed or are currently performing at UML (or elsewhere).

Class Participation:

All students are expected to participate in the discussion/question portion of each seminar series, read and critique each written assignment, and participation will be a part of your grade. The point is to learn from each other and become comfortable presenting in front of a group of both lay-persons and professionals in your field.

Schedule:

DATE	TOPIC	NEXT WEEK ASSIGNMENT
Sep. 6	Introduction/Overview/Goals How to write/prepare Introduction	Pick field of interest and prepare 5 minute "chalk-talk" of topic(s)
Sep. 13	Five minute "chalk-talk" of research topic options – discussion of focus	Prepare 5 min Introduction
Sep. 20	Five min presentations on Introductions	Write 1 page Introduction – Bring 12 copies to class for handout
Sep. 27	Hand-out written Introduction How to write and present Research Design/Mat & Methods	Prepare 5 min Presentation of Research Design/Mat & Methods

DATE	TOPIC	NEXT WEEK ASSIGNMENT
Oct. 4	Five min presentations on Research Design/Mat & Methods ; Review Intro	Write 1 page Mat & Methods Bring copies to class
Oct. 11	Handout Mat & Methods How to write/present research Results	Prepare 5 min presentation on research Results
Oct. 18	Five minute presentation of Results Review Mat & Methods	Write 1-2 page Results + Figures Bring copies to class
Oct. 25	Handout Results + Figures How to write/prepare the Discussion/Future Directions	Prepare 5 minute presentation on Discussion/Future Directions
Nov. 1	Five minute presentations of Discussion Review Results + Figures	Write 1 page Discussion/Future Directions – Bring copies to class
Nov. 8	Handout Discussion How to write Abstract/Summary/Title/Refs	Prepare Abstract/Title presentation Write Abstract/Title – Bring copies
Nov. 15	Five min presentations on Abstract/Title Handout Abstract/Summary/Title/Refs Review Discussion	Prepare 15 minute final presentations
Nov. 22	Final 15 minute presentations & discussions	Put Final Paper together
Nov. 29	Final 15 minute presentations & discussions	
Dec. 6	Final Paper due	

Final thoughts

This course is designed to give you practice in both writing and presenting your ideas and what you have learned on your research topic. It is also designed to teach you common mistakes how to avoid them. Some helpful suggestions are:

- 1) Choose your topic carefully! **It must be relevant to current research** (e.g. **within the past year**) and of interest. Also, YOU must thoroughly understand the topic in order to clearly present the background and current research to your colleagues. So choose your subject wisely!
- 2) Although presenting your thoughts is an intimidating process, the better you are **prepared**, the better you will find talking in front of the group. Spend time **practicing** your presentation!
- 3) All written presentations **MUST** be submitted, **before the class, to Turnitin.com!** You must write in your **own words!** This includes Figure legends and all text.

4) **Spell check** EVERYTHING! Your initial papers will only be 1 page, so make sure every word is appropriate and spelled correctly.

5) **Follow the directions** on the handouts for each section. Points will be deducted for missing components.

6) Your research papers should include **multiple (>5) references (not just those in the paper that you choose to review)**. **Web sites ARE NOT references!!!** You will lose credit for web sites!

Grading: You will be graded on the instructor's evaluation of the oral presentations (50%), the written reports (40%), and a combination of class participation, attendance, and overall attitude toward the course (10%).

Further breakdown:

30% for the **component presentations** altogether, and **20%** for the **final presentation**

20% for the **component reports** altogether, and **20%** for the **final written paper**

10% overall attitude toward the course

your final presentation and report are expected to have a **significant improvement/revision** from the component presentations/reports---final **scores will drop without an improvement.**