

Undergraduate Seminar BIOL 4950, Fall 2010

COURSE INSTRUCTOR: Dr. Scott R. Santos, Rouse 128

OFFICE HOURS: Fridays, 8:00-10:00AM, or by appointment

EMAIL: santos@auburn.edu

TIME AND PLACE: Thursdays 2:00-2:50PM, Rouse Life Sciences, Room 112

PREREQUISITE: BIOL 3060 or equivalent course

REQUIRED TEXT: There is no required text; instead, journal articles on biological research from the primary literature will be read, presented, and discussed in class, and then summarized in selected synopses during the semester.

EXPECTATIONS:

- Conducting a literature search on an biological topic of interest and selecting a research paper on the topic to be presented by you and discussed by the class once during the semester
 - Topic and paper selection due by or before third class session.
- Preparing and presenting a 17- to 20-minute oral presentation on the selected research paper to the class. Presentations should be in PowerPoint and include Introduction/Background, Hypothesis, Methods, Results, Discussion, and Conclusions sections (~15-20 slides total).
- Preparing an annotated bibliography consisting of 10 papers that pertain to the topic and paper you present to the class
- Preparing five (5) written synopses (summaries) of selected presentations during the semester, excluding yours

COURSE DESCRIPTION, GOALS, AND FORMAT:

This is a seminar course, designed to give advanced undergraduates exposure to the range of biological research by reading and discussing published scientific articles on a variety of topics, and experience in providing written synopses on a subset of articles for a letter grade. Each week, seminar participants will listen to a presentation by one student on a primary literature article and discuss the presented paper in a “round-table” format. The presenter that week will be the seminar leader. Students will select their topic based on their scientific interests at the organizational meeting and will then select their research paper by conducting a literature search on the topic. The second week of the semester will consist of a literature searching exercise in the library.

Students will write and submit five (5) synopses of seminar papers periodically through the semester. *Students are responsible for reading assigned paper every week and discussing the paper following each presentation:* Silence is not golden! Synopses (up to 2 typed pages, double-spaced) should include: 1) a 1- to 2-paragraph summary of the paper, 2) your reaction to/critique of the paper (determined before the presentation), and 3) the group’s general reaction to the paper (determined after the presentation). Synopses are due on the date shown on the schedule (to be established during the first organizational meeting).

ATTENDANCE POLICY:

Students must actively participate in all seminars, so attendance is mandatory. Only official university excuses or those certifying a medical condition (via a note from the attending physician) or a certified family emergency will be accepted as a reason for missing a class day. Whenever possible, please advise the instructor of your absence beforehand.

GRADING:

Grading is based on performance in the following (details below):

- Quality of oral presentation of scientific paper & as seminar leader (1) 40%
- Literature search/annotated bibliography (1) 25%
- Synopses of selected presentations (5) 25%
- Attendance & participation during discussion after presentations 10%

ORAL PRESENTATION: An oral presentation schedule is required for each student. At least two weeks before you are scheduled to make your presentation, you will need to send me the PDF of the original primary literature research article for clearance. Once cleared, the article will be sent to the rest of the class *for and discussing following the presentation*. The topic for your annotated bibliography (see below) will be same as the topic for the presentation.

PowerPoint Slides: Make PowerPoint slides for your presentation that you can complete within 20 minutes. This will be followed by questions from audience. Introduce your topic clearly, maintain focus on your topic, use smooth transitions when needed, be effective and relevant, end with logical conclusion.

Language use and delivery: Keep in mind the following tips: Effective eye contact; suitable pace, volume and confidence in your presentation; engage your audience; dress appropriately; and use suitable words to get across your point.

ANNOTATED BIBLIOGRAPHY: Select ten original primary literature research articles on the topic assigned to you. Annotate these articles, keeping in mind the following format:

Citation: Complete citation in current format with authors name and their affiliations, title, name of journal, volume, page numbers and year. Follow a suitable journal format.

Annotations: Include relevance/significance of each of the selected article to your topic in a clear and concise manner.

SYNOPSES: Each student will write and submit five synopses of seminar papers presented by your peers. Be precise in usage of terminology and framing of sentences. Your synopses should include the following:

Citation: Provide complete citation of the paper.

Identification of hypothesis: A clear and concise statement of the hypothesis.

Description of findings: Clearly indicate methods and results, with your comments on relevance of each set of results to the conclusion.

Summary: Summarize concisely the contribution of this paper to the specific area.

CLASS PARTICIPATION: Your participation in discussions of materials in class following each presentation will improve if you come to the class after reading the article that is being presented on a given day. For this class, *silence is not golden!* Use the following strategy to improve your quality of participation:

Come prepared: Read the article before coming to class.

Listen carefully: Very important for active participation.

Quality of participation: Your participation should be relevant and reflect your understanding of the material, and help initiate further discussions.

Frequency of participation: Your grade in this area will depend upon the frequency of participation.

IMPORTANT INFORMATION OF SPECIAL NOTE

Biology Major Field Test: As part of BIOL 4950, we administer the Major Field Test (MFT). The Department of Biological Sciences uses this test as one means of assessing the effectiveness of our undergraduate programs. It is a 2-hour test designed to assess your basic knowledge of several major areas in Biology (e.g. cell biology, ecology, molecular biology, organismal biology, etc). It is similar to the Biology GRE and can be used as practice for that test. You will be informed of your performance on the test and how this compares to the national average. However, your personal performance on the test will be kept confidential when the scores are used for our program assessment purposes. Your MFT score does not factor into the grade for this class. However, **attendance at the exam will count as part of your participation.** In lieu of a final exam, **you are required to take the MFT on one of two Saturdays in October (TBA) in Parker Hall, room 126—mark your calendar!**

SPECIAL ACCOMODATIONS

Student who need special accommodations are encouraged to see the instructor after class or in my office so we can discuss your situation confidentially. You must bring a memo from the Program for Students with Disabilities (PSD) Office to me as soon as possible. If at any time during the semester you feel that accommodations put in place are not working, please contact me and/or the professional staff at PSD. If you do not have a memo from the PSD that describes your special needs you should see them in 1232 Haley Center (844-2096). Without this memo, accommodations cannot be granted.

SPECIAL REQUEST: Cell phones should be turned off and put away during the seminar.