

Valdosta State University
Department of Biology, College of Arts and Sciences
BIOL 4900 B: Senior Seminar
Syllabus, Fall 2013

Instructor: Dr. Cy L. Mott

Office: Bailey Science Center 1212

Office Hours: Monday 2:00 – 4:00 P. M., Tuesday 3:30 – 4:30 P. M. or by appointment

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Note: Please **DO NOT** send messages through BlazeVIEW, as they are not automatically forwarded to my VSU email account. Using the email address above will result in the most prompt response.

Course Time and Location: Lecture (BSC 1202): Wednesday 3:30 – 5:20 P. M.
Seminar (Usually Powell Hall): Thursday 4:00 – 4:50 P. M.

Prerequisites:

Completion of all courses in the senior curriculum for the biology major.

Optional Texts:

Writing Papers in the Biological Sciences, Fifth Edition. McMillan, Virginia.

Course Description: (from the Undergraduate Catalog): —The capstone course in biology. This course assesses students' abilities to independently research topics in biology, assimilate the information, and disseminate the information in an organized and understandable fashion in both oral and written forms. Besides demonstrating comprehension of their topic and competence in communication skill, students take the ETS Major Field test in biology and complete the Senior Exit Questionnaire for successful course completion.

Course requirements: Ultimately, the course graded as "Satisfactory" or "Unsatisfactory". In order to obtain a Satisfactory, you will need to complete all of the following:

- a minimum score of 140 on the Major Fields Test
- attend 95% of scheduled class meetings and seminars.
- Complete the Senior Exit Questionnaire
- Obtain at least 70% of points from the following assignments and projects:
 - Review Paper – 40 pts
 - Oral Presentation – 30 pts
 - Seminar Summaries – 10 pts
 - Paper Draft and Peer Review – 10 pts
 - Participation/Assignments – 10 pts

All assignments are due at the start of class on the assigned date; assignments submitted later in class or later that day will immediately incur a 50% reduction in the maximum number of points possible. Assignments can be completed early; however no assignments will be accepted 24 hours after the due date. Assignments not turned in will receive 0 points. Rubrics for all assignments and projects will be provided on the course Blazeview website.

Major Field Test: The ETS Major Field Test is a comprehensive, standardized test designed to evaluate the student's general knowledge in the sub-disciplines of biology. The test scores will be used to evaluate the effectiveness of the department's curriculum, and VSU's scores will be compared to the national average to identify possible weak areas in our curriculum. Thus, students should take the test seriously and make every effort to excel on it. Completion of the ETS Major Field Test with a score of 140 or higher is a course requirement, and students who fail to complete the ETS Major Field Test will receive a grade of unsatisfactory for the course.

Each individual student is responsible for contacting the VSU Testing Office (Powell Hall-West, First Floor, Room 1120; Telephone 229-245-3878) and arranging a time to take the ETS Major Field Test in Biology. Students must schedule the Major Field Test by September 26th, 2013. A fee is assessed to take the Major Field Test. The Biology Department will pay the fee for each student to take the test once. Students who fail to score at least 140 on the test must re-take it until a score of 140 is achieved. The student will bear the cost for any re-taking of the Major Field Test. For more information on the Major Field Test in Biology please refer to the ETS website. (<http://www.ets.org/mft/about/content/biology>). A photocopy of your ETS major field test score must be submitted to the instructor.

Academic Honesty Policy: Cheating, plagiarism (submitting another person's material as one's own, or doing work for another person which will receive academic credit) are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an assignment or exam, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were your own work. Students are responsible for knowing, understanding and complying with the VSU Student Code of Conduct, in Appendix A of the Student Handbook (<http://www.valdosta.edu/stulife/handbook/>)

If substantial evidence exists for a violation of this policy, the student(s) involved will receive a grade of 'U' for the course and an official record will be filed following the Academic Integrity Response along with a letter to the Dean of Students (<http://www.valdosta.edu/academic/AcademicHonestyPoliciesandProcedures.shtml>).

Students are required to read and sign the Department of Biology's Plagiarism Policy. <http://ww2.valdosta.edu/biology/documents/PlagiarismPloicy.pdf>

In addition, students must complete the plagiarism tutorial by Aug 23 online at <http://www.lib.usm.edu/legacy/plag/plagiarismtutorial.php>

TurnItIn: By taking this course, you agree that all required course work may be subject to submission for textual similarity review to Turnitin, a tool within BlazeVIEW. For more information on the use of Turnitin at VSU see [Turnitin for Students](#).

Seminar Summaries: As part of BIOL 4900 you will attend the science seminar series. The seminar schedule is posted and updated online:

<http://ww2.valdosta.edu/cas/scisem/Fall2013.shtml>.

It is your responsibility to follow the schedule and attend the weekly seminar. Be advised that the schedule is regularly updated with seminars and/or cancellations. Students must check in with their professor following each seminar to receive credit for attendance. *Any student arriving more than 5 minutes late to a seminar will receive no credit for attendance, and students must follow the code of conduct when attending seminars.*

You are required to complete a summary of seminars hosted by the biology department. You must score at least 80 pts, which may take as few as 4 seminar summaries. A rubric for seminar summaries will be posted on the course Blazeview website. Summaries are due by 5 P.M. the

Friday immediately following the seminar. Seminar summaries should be in Microsoft Word format (.doc or .docx) and uploaded through TurnItIn on Blazeview.

Participation/Assignments: You are expected to participate in class discussions and be engaged during student presentations. *Attendance is mandatory for all classes, and students arriving > 5 minutes late will be marked as absent. Any student missing > 20% of course/seminar time will automatically receive a "U" as per the VSU Handbook.* In addition, several assignments will be given to aid in the development of your research paper and presentation. This portion of your grade will reflect your completion of assignments, as well as engagement during presentations (asking questions, completion of peer evaluation forms, etc.) and discussions.

Student Success Center: The Student Success Center (SSC) at Valdosta State University is located in Langdale Residence Hall and is available to all students. The SSC provides free peer tutoring in core curriculum courses, including biology, chemistry, math, writing, and foreign languages. The SSC also provides free professional academic advising and on-campus job information in one location. Call 333-7570 to make an appointment, or visit the website: www.valdosta.edu/ssc.

Withdrawing from the course: The last day to withdraw without penalty is Thursday, October 3, 2013. If you don't officially withdraw, and instead just stop coming to class, you will receive an F for the course.

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone or email because positive identification cannot be made.

Students with disabilities: Students requiring special accommodations because of disability should discuss their needs with me as soon as possible. Those needing accommodations that are not registered with the Special Services Program must contact the Access Office for Students with Disabilities located in Farber Hall. The phone numbers are 245-2498 (voice) and 219-1348 (tty).

Student Conduct:

- 1) **No active cell phones, iPods, or other electronic/multimedia devices in lecture or during seminars.** This rule is in effect at the time class starts, and all electronic devices, if present, should be placed in bags or otherwise out of site. If usage of such items persists, students will be asked to leave and they will be marked as "absent" for that day. If a student refuses to leave or cannot be convinced to leave by his/her classmates, the instructor will ultimately leave the classroom, and students will still be responsible for material that would have been taught during that time. Repeat offenders may be dropped from the class by the instructor. In addition, any student observed using cell phones or otherwise causing distractions during seminars will automatically receive an unsatisfactory grade for the course.
- 2) Students that wish to bring laptop computers to class will be required to sit near the back or sides so as to eliminate distractions to classmates; if students are using such equipment in a distracting manner (i.e. checking email, web-surfing, listening to music, etc.) laptops will be banned from the classroom for all students.
- 3) Cheating of any kind will not be tolerated; this includes copying another student's material, cheat sheets, electronic devices, etc. There will be no first warning, and I will recommend the maximum penalty for the first violation, up to and including **expulsion from the university**. As students, you are also responsible for policing

each other. Consequently, anyone aiding a “cheater” or not reporting observed cases of cheating to the instructor will be considered an accomplice and subject to similar penalties as those actually cheating.

I maintain office hours for students needing to discuss course material, and these hours will always be available unless students are otherwise notified in advance. Office hours are meant to address specific questions students may have, not to re-teach lecture material in the case of student absence. If students cannot attend these scheduled office hours, they may make an appointment for an alternate time. However, if a student schedules an appointment outside of scheduled office hours and does not arrive, that student will lose the opportunity to schedule appointments outside of established office hours in the future.

NEVER, EVER, EVER, EVER EMAIL ME TO ASK WHAT YOU MISSED IF YOU ARE ABSENT; IT IS YOUR JOB TO CONSULT WITH CLASSMATES AND DETERMINE WHAT YOU MISSED!!!

Notes/Study Tips:

- a) Remember when sending an email that your professor’s name is not “Hey”; an email should begin with Dear Dr. (insert name), then continue with your message written in actual English words (not text language), and conclude with terms such as “Sincerely”, “Thanks in advance”, etc. Realize that many older people (i.e. your professors) are not biologically linked to their phones in the ways observed in younger generations...please allow up to three (3) business days before sending a follow-up email if you haven’t received response.
- b) Don’t simply write down the things that the instructor writes down; believe it or not, they may be saying something important even when they don’t write it down! If you are not sure if it’s important, write it down anyways, just to be sure. If your instructor talks too fast, ask (don’t tell) him/her to slow down...this is your very expensive education, so get what you need out of it.
- c) The phrase “***I don’t know***” is the most powerful phrase in the sciences, because it allows us to push past the boundaries of current knowledge. Students are often embarrassed to admit they don’t know something, but not knowing is what has allowed the world’s greatest scientists to uncover new things. Odds are, if you don’t know, half of the class does not know either...
- d) When students say “I can multi-task while studying”, what they really mean is “I enjoy doing twice as much work for half of the result”. If you eliminate distractions (TV, music, crowds, etc.) your increased focus will allow you to absorb the information much faster and more completely, allowing you time for more enjoyable activities (unless studying is your most enjoyable activity).
- e) The phrase “*D for Degree*” no longer applies, as approximately 120,000 students a year are graduating with a biology degree, to such extent that just having the degree is no longer the easy way into getting a job. Due to the overabundance of degree-holders, those with lower GPAs will only have those jobs available to them that better students did not want (ask me about not salting your food during an interview)...
- f) Most students view higher education as the way to get a job...but you have a job right now as a student, and you should get into the habit of practicing good workplace ethics now: be on time, be prepared, and take responsibility for yourself (because no one else will!)

TENTATIVE Schedule: Subject to change

Date	Topic	Assignments Due
14-Aug	Course Logistics and Overview	
21-Aug	Effective Scientific Writing	Plagiarism Tutorial Citation Card Final Topic Selection
28-Aug	Student Research, No Class	
4-Sept	Student Research, No Class	
11-Sept	Effective Scientific Presentations Peer Review of Research Paper	Paper Draft
18-Sept	Student Research, No Class	
25-Sept	Student Research, No Class	
2-Oct	Paper Submission/Senior Exit Questionnaire	Research Paper
9-Oct	Student Presentations	
16-Oct	Student Presentations	
23-Oct	Student Presentations	
30-Oct	Student Presentations	
6-Nov	Student Presentations	
13-Nov	Student Presentations	
20-Nov	Student Presentations	

Research Topics:

- Geographic range edge effects on species' reproductive strategies
- Diversity of reproductive strategies in the amphibians
- Social organization of beavers and/or other colonial mammals
- Ecosystem engineering by vertebrate and/or invertebrate taxa
- Geographic range edge effects on species' morphology
- Conservation value of geographically "peripheral" populations
- Allen's Rule
- Kin recognition in amphibians or other non-human vertebrates
- Chytridiomycosis and amphibian populations
- Bioluminescence in marine organisms
- The abundant center (or "centre") distribution
- Rapoport's Rule
- Phenotypic plasticity and evolution at geographic range margins
- Cannibalism in aquatic communities
- Impact of facultative paedomorphosis on aquatic communities
- Geographic range shifts in response to global climate change
- Responses by invertebrates and/or amphibian larvae to fish predation
- Effects of habitat on intraguild predation

- Geographic range edge effects on physiological processes
- Gloger's Rule
- Value of amphibians in medicinal research
- Effects of cerebral asymmetry on animal behavior
- Geographic range size versus evolutionary age
- Relationships between geographic range size and body size
- Parthenogenesis in vertebrates
- Effect of predator intraspecific size variation on trophic cascades
- Economic value of amphibians