

Biology 4900—Senior Seminar  
Spring 2012

**Instructor:** Dr. Timothy P. Henkel

**Office:** 2212 Bailey Science Center 249-4844

**Office hours:** MW 11:00am-12 pm and by appointment

**Email:** [tphenkel@valdosta.edu](mailto:tphenkel@valdosta.edu)

**Course Objective** (from the Undergraduate Catalog): —The capstone course in biology. This course assesses students' abilities to research independently 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.

**Pre or co-requisites:** Completion of all courses in the senior curriculum for the biology major.

**Optional Text:** *Writing Papers in the Biological Sciences*, Fifth Edition. McMillan, Virginia.

**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
  - o Review Paper – 40 pts
  - o Oral Presentation – 30 pts
  - o Seminar Summaries – 10 pts
  - o Paper Draft and Peer Review – 10 pts
  - o Participation/Assignments – 10 pts

All assignments are due at the start of class on the assigned date. Assignments can be completed early; however **no assignments will be accepted after the due date**. Assignments not turned in will receive 0 points. Rubrics for all assignments and projects are 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 Feb. 21 2012**. 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.

**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 Jan 15** 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/Spring2013.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.

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 (Biology is hosting 8 seminars in Spring 2013). A rubric for seminar summaries is posted on the course Blazeview website. Summaries are due by 5pm 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. In addition, several assignments will be given to aide 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.

**Access Office:** Students requesting classroom accommodations or modifications due to a documented disability must contact the Access Office for Students with Disabilities located in the Farber Hall. The phone numbers are 245-2498 (V/VP) and 219-1348 (TTY).

**Federal Privacy Act:** It is illegal to release personal information about an individual to others. Therefore grades, averages, and other personal information about any person will not be released to another person or over email.

**Student Success Center:** The Student Success Center (SSC) at Valdosta State University is located in Langdale Residence Hall above the Tech Shop 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](http://www.valdosta.edu/ssc).

## PROPOSED SCHEDULE

**Seminars:** Students are required to attend the Science Seminar Series, Thurs. 4-4:50 pm. The schedule of speakers can be found online: <http://www.valdosta.edu/cas/scisem/Fall2012.shtml>

Date	Topic	Assignments Due
8-Jan	Course Logistics and Overview	
15-Jan	Effective Scientific Writing	Plagiarism Tutorial Citation Card Final Topic Selection
22-Jan	Student Research, No Class	
29-Jan	Student Research, No Class	
5-Feb	Effective Scientific Presentations Peer Review of Research Paper	Paper Draft
12-Feb	Student Research, No Class	Schedule Major Fields Test
19-Feb	Student Research, No Class	
26-Feb	Paper Submission/Senior Exit Questionnaire	Research Paper
5-Mar	Student Presentations	
12-Mar	Student Presentations	
19-Mar	Spring Break	
26-Mar	Student Presentations	
2-Apr	Student Presentations	
9-Apr	Student Presentations	
16-Apr	Student Presentations	
23-Apr	Student Presentations	

### Research Topics: Methods in...

- |   |  |
|---|--|
| 1. Adaptations of polar fishes                      | 17. Marine invasive species                |
| 2. Behavioral ecology of marine fishes              | 18. Marine microbial ecology               |
| 3. Behavioral ecology of marine mammals             | 19. Marine refuge/sanctuary management     |
| 4. Benthic-pelagic coupling                         | 20. Marine toxicology                      |
| 5. Biodiversity and ecosystem function              | 21. Ocean acidification                    |
| 6. Bottom up controls of marine communities         | 22. Osmoregulation in estuarine species    |
| 7. Breeding behavior in marine birds                | 23. Predation defenses of mollusks         |
| 8. Chemical ecology of marine invertebrates         | 24. Recruitment of fishes on coral reefs   |
| 9. Climate change and marine primary production     | 25. Rocky-intertidal community ecology     |
| 10. Community dynamics of hydrothermal vents        | 26. Seagrass community ecology             |
| 11. Dispersal mechanisms of benthic invertebrates   | 27. Shellfish poisons                      |
| 12. Diving physiology of marine mammals             | 28. Soft-sediment community ecology        |
| 13. Ecological function of bioluminescence          | 29. Speciation of marine invertebrates     |
| 14. Facilitative interactions in marine communities | 30. Trophic cascades in marine communities |
| 15. Foraging strategies of marine birds             | 31. Other Approved by Instructor           |
| 16. Marine fishery management                       |  |