

# BIOL 4900A – SENIOR SEMINAR, Spring 2016

CRN 21592; Thurs. 2:00 – 3:50 p.m. in BC 1202, R 4:00 – 4:50 p.m.; Science Seminar required; usually in Powell Hall  
Students should check for updates to the Science Seminar Series at <https://www.valdosta.edu/colleges/arts-sciences/science-seminars/>.

## Instructor: Dr. Russell H. Goddard

BC 2090: 249-2642

Office Hours: MWF 10:30 – 11:30 a.m. or by appointment.

email: [rgoddard@valdosta.edu](mailto:rgoddard@valdosta.edu)

Note: All official correspondence must be sent to the above VSU email address. Dr. Goddard does not use BlazeView Email and any email sent to that location will not be read so don't waste your time!

**Course Description.** Pre- or Co-requisite: Completion of all required courses in the senior curriculum for the biology major. Graded "Satisfactory" or "Unsatisfactory." The capstone course in biology. Students are required to attend outside lectures chosen by the instructor. This course assesses students' ability to research independently topics in biology, assimilate the information, and disseminate the information in an organized and understandable fashion in both written and oral forms. Besides demonstrating comprehension of their topic and competence in communication skills, students take the ETS Major Field test in biology and complete the departmental Senior Exit Questionnaire for successful course completion. [0-3-1]

## Course objectives:

- To assess students ability to independently research topics in biology, assimilate the information, and then to disseminate the information in an organized and understandable fashion in both written and oral forms.
- To administer and evaluate students' satisfactory completion of the ETS Major Field Test in biology and completion of the departmental Senior Exit Questionnaire

## Specific Course Requirements:

Choice of topic: **Due by 29 January 2016 (Point deductions apply for late selections)**

General Outline with early references for term paper (**due by 3 p.m. Friday, 12 February; again point deductions apply!**)

Term Paper (**Due Friday 11 March 2016**); all term papers are due on this date regardless of when your oral presentation is scheduled

Oral Presentation (**20 min talk**): TBA on a schedule starting after Spring Break

Completion of the Major Fields Test in Biology with a score of 140 or higher (**deadline 26 February 2016**).

Completion of the Senior Exit Questionnaire

Attendance at all scheduled class meetings

Attendance of and submission of completed evaluation forms for all science seminars.

**Course Grading:** This course is graded as Pass/Fail. Each student needs to acquire a numerical score of at least 70 out of 100 for obtaining a passing grade.

Completion of a satisfactory written research paper (paper is graded P/F):	30 points
Completion of a satisfactory oral presentation	30 points
Completion of the ETS Major Field Test in Biology with a score of 140 or higher (taken by 26 Feb.)	30 points
Completion of the Biology department Senior Exit Questionnaire	10 points

## Deductions to grade!

Written Research Paper with gross grammatical construction errors or research errors	-5 to -15 points
Poorly prepared PowerPoint presentation	-5 to -15 points
Any plagiarism found in the paper	-50 points
Failure to adhere to a 20 min oral talk schedule (short or long; 15 min + questions)	-2 points/min.
Assignment turned in late up to 2 days (Topic choice, General topic outline, paper, presentation)	-2 points/day
Deadline penalty for above assignments turned in later than 2 days late	-5 points/day
Oral Presentation (no show)	-25 points
Failure to attend a required Science Seminar, or student seminars (each occurrence)	-10 points
Failure to complete the Senior Exit Questionnaire	-20 points

**Major Field Test.** The [ETS Major Field Test](#) in biology 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 complete the Major Field Test by Friday, 26 February 2016. 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.*

**Science Seminar Series.** Attendance and completion of an evaluation form is required for all seminars in the Science Seminar Series, starting on January 28, 2016. These seminars are held Thursdays at 4:00 PM in the Powell Hall Lecture Hall. The schedule with time, date and venue may be found at the following Internet address: <http://www.valdosta.edu/colleges/arts-sciences/science-seminars/2016-spring/>. *Evaluation forms will be passed out by the instructor at the right side (facing stage; left side as you enter) of the amphitheater up until 4:00 p.m. Any student not in attendance prior to 4:00 p.m. will be considered absent. In order for the student to receive credit for attending a science seminar, it is the student's responsibility to see the instructor immediately after each seminar and submit her/his signed, completed evaluation form.*

**Current Science Seminar Schedule** (All Seminars will be held each THURSDAY in Powell Hall Auditorium at 4pm. Powell Hall is located next door to the Bailey Science Center):

<b>Date:</b>	<b>Presentation:</b>
28 January	Dr. Tim Breneman, Plant Pathology, UGA, Tifton. Pecan truffles in Georgia
4 February	Open
11 February	Open
18 February	Open
25 February	Open
3 March	Dr. Thomas Manning, VSU, Chemistry, Intellectual Property and Undergraduate Research; From Artificial Reefs to Tuberculosis
10 March	Open
17 March	Spring Break Week
24 March	Dr. Kenneth Rumstay, VSU (Physics, Astronomy and Geosciences), <i>Echoes from a Galaxy's Heart: Reverberation Mapping of Active Galactic Nuclei</i>
31 March	Open
7 April	Open
14 April	Open
21 April	Clinton Beeland, CEO CJB Industries, (Chemistry Dept.), Corporate Values and Disciplines and the "CJB Way"

### **Written Term Paper:**

**Course Theme: *Signal Transduction Mechanisms.*** Students will independently investigate current literature and choose a topic for their research that demonstrates signal transduction in a physiological response. Students can select any organism, and any process to investigate but should broadly define a physiological response in that organism that is regulated by a signal transduction process where the receptor is known and a large number of enzymes involved in an amplification response have been implicated.

Written term papers are due at midterm, specifically by Friday 4 March 2016 at 3 p.m. The term paper must be delivered electronically to Dr. Goddard's email address ([rgoddard@valdosta.edu](mailto:rgoddard@valdosta.edu)) as an attachment in Word format. Additionally, all references cited must be included as hard copies or as pdf attachments (preferred) to Dr. Goddard. The format of the paper should be sub-headed for ease of reading and include:

A **title page** with the title of the paper, student name, course title (Senior Seminar; BIOL 4900), the name of the instructor, and the submission date.

The body of the paper should have:

An **Introduction** that introduces the reader to the research topic and leads into:

a **Discussion** that will contain a detailed discussion of the subject with primary references cited where appropriate (see additional notes in the “course theme” section).

Finally, you should end your paper with a **Conclusion** that summarizes the student’s interpretation of the information in the paper.

**Literature Cited:** The literature cited must contain at least 10 **primary source** research articles. In addition to these, students may choose to add no more than two review articles, and no more than one textbook. No web based references will be accepted unless from an online peer-reviewed journal.

**Format:** All references used must be cited at least once in the body of the paper using proper format. In-text citations are generally written as (Author, year; Author and author, year; or Author et al., year, for one, two, or three or more author papers). For this class we will adhere to the *Instructions to authors for The Plant Cell* that can be found in the first issue of a volume available in the library, or online at: <http://www.plantcell.org/>.

## **Plagiarism.**

Plagiarism has become an increasing problem on University campuses. Plagiarism is the representation of someone else’s work as your own. You may not blatantly copy phrases, paragraphs, or ideas from another’s work. You cannot paraphrase someone else’s ideas and use them as your own. You must analyze all data and work by others and then integrate this information with new data and conclusions that you independently synthesize, properly citing past work that supports your conclusions.

Students should read and be familiar with the Biology Department policy on plagiarism:

<http://www.valdosta.edu/colleges/arts-sciences/biology/documents/resources/PlagiarismPolicy.pdf> and read and understand the University policy on Academic Integrity: <http://www.valdosta.edu/academics/academic-affairs/vp-office/academic-honesty-policies-and-procedures.php>.

*Each student will be required to read the VSU Biology Department’s Plagiarism Policy and to sign a form to be kept on file with the department, indicating they have read and comprehend this policy.*

Additionally, there have been many articles written on what is plagiarism and I refer students to the one referenced here and published in the Chronicle of Higher Education. The link for this article is available from the electronic version of this syllabus on the course web page.

McLemee, Scott. 2004. What is plagiarism? *The Chronicle of Higher Education* 51(17); A9.  
<http://chronicle.com/article/What-Is-Plagiarism-/6962>

In the article by Scott McLemee, the author quotes Joseph Telushkin in a passage that I believe aptly captures the reasons why academicians find plagiarism so ethically abhorrent. The quote by Joseph Telushkin reads, "*If a person presents as her own an intelligent observation that she learned from another, then it would seem that she did so only to impress everyone with how 'bright' she is. But if she cites the source from whom she learned this information, then it would seem that her motive was to deepen everyone's understanding. And a world in which people share information and insights to advance understanding, and not just to advance themselves, is one well on its way to redemption.*"

**Any act of plagiarism in the student presentation of the written paper will result in a failing grade for the term paper and therefore, this course.**

It is imperative that the term paper be the student’s own original work. Plagiarism will not be tolerated, and any student caught plagiarizing shall receive a failing grade on the term paper resulting in a grade of unsatisfactory in the course.

## **Oral Presentations:**

Oral Presentations will be scheduled later in the semester and will be prepared and delivered using PowerPoint software unless an exception has been previously approved by the instructor. Attendance at all student presentations is absolutely required. Failure to attend any student presentation will adversely affect your grade and could result in your failing this course. All students will evaluate each other’s presentation. It is expected that students will be critical in these evaluations and will be able to justify their evaluation for each of their colleagues. Student evaluations will be used as part of the criteria for their participation grade for this course (below).

Student Presentation Schedule (Note that students who pass in their written paper will have priority to select a date. In the case of all papers being turned in on the deadline, the instructor will arrange the schedule):

Date:	Time	Student	Title
24 March	2:05 p.m.		
	2:25 p.m.		
	2:45 p.m.		
	3:05 p.m.		
31 March	2:05 p.m.		
	2:25 p.m.		
	2:45 p.m.		
	3:05 p.m.		
7 April	2:05 p.m.		
	2:25 p.m.		
	2:45 p.m.		
	3:05 p.m.		
14 April	2:05 p.m.		
	2:25 p.m.		
	2:45 p.m.		
	3:05 p.m.		
21 April		Senior Exit Questionnaire	

Students must electronically send a copy of their PowerPoint presentation as an attachment to Dr. Goddard at [rgoddard@valdosta.edu](mailto:rgoddard@valdosta.edu) at least four hours in advance of their seminar, but preferably earlier to insure compatibility with the classroom computer.

**Class Participation:**

Students are expected to attend all scheduled class periods and this will count towards your grade. Students are also expected to ask questions and participate in discussions about other student’s topics and presentations.

**FERPA:** The Family Educational Rights and Privacy Act (FERPA) prohibits the posting of grades by social security number or in any manner personally identifiable to the individual student. Grades will not be posted by social security number or by name. Students will have the opportunity to have their grades posted by a unique alphanumeric sequence identifiable only by the student and the professor. No grades can be given over the telephone, as positive identification cannot be made by this manner.

**Students with Disabilities:** Students requiring classroom accommodations because of documented disabilities should discuss their needs with the instructor at the beginning of the quarter. Disabled students not registered with the Special Services Program should contact the program officer in Nevins Hall 1115 (phone: 245-2498).

**Course Outcomes.** This course meets the following educational outcomes.

**VSU General Education Outcomes 4, 7**

**Biology Educational Outcome 1**