



Valdosta State University, Department of Biology

BIOL 4900: Senior Seminar

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Instructor: Dr. Joshua S. Reece

Lecture: BSC 1202 Tuesdays 3:30pm-5:20pm; Seminar in Powell Hall Thursdays 4-5pm

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Office hours: Wednesdays 1:30pm to 3:30pm, and by appointment

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**\*\* Syllabus subject to change \*\***

## **Course Overview**

Welcome to BIOL4900, Senior Seminar. This is the capstone course in Biology at VSU. It is designed to assess your ability to research topics, assimilate information, and disseminate that information to your peers in an organized, understandable, and comprehensive manner. Your primary deliverables for this course will be a paper and a presentation. You will be able to choose your own topic of study, provided that it is original (new- not something you have done before) and approved by your instructor.

## **Course Objectives**

By the end of this course you will have demonstrated the ability to:

- 1) write a research paper
- 2) give a presentation on your research
- 3) attend and participate in a science seminar series

## **Related Learning Objective for VSU Department of Biology**

All five of the learning objectives for the VSU Department of Biology are objectives of this course: [http://www.valdosta.edu/academics/catalog/1213/ugrad/documents/UG\\_131-146.pdf](http://www.valdosta.edu/academics/catalog/1213/ugrad/documents/UG_131-146.pdf)

## **Related Learning Objective for General Education Outcomes**

- 4: Students will express themselves clearly, logically, and precisely in writing and in speaking, and they will demonstrate competence in reading and listening.
- 5: Students will demonstrate knowledge of scientific and mathematical principles and proficiency in laboratory practices
- 7: Students will demonstrate the ability to analyze, to evaluate, and to make inferences from oral, written, and visual materials.

## **Course Prerequisites**

The course prerequisite is to have senior standing and to have completed or co-registered in all required courses in the senior curriculum for Biology.

## **Course Credits**

BIOL 4900 is a one credit course.

## Required Texts and Materials

There are no required texts.

## Grading

This course has a Satisfactory/Unsatisfactory grading scheme. To achieve a satisfactory grade you must do the following:

- 1) Attend 80% of the seminars and submit questions for the speaker from each seminar. During seminars we will all sit together. You will sign in with me (this is how I will keep attendance, if you don't sign in, you are absent), and you will listen to the seminar without playing on your cell phone, tablet, computer, or other device. Failure to adhere to these stipulations equates to an absence.
- 2) Score 140 or better on the Major Field Test (if a score range is reported, then the median of the score range must be 140 or better)
- 3) Attend 80% of class meetings
- 4) Present a coherent research paper
- 5) Give a coherent oral presentation of your research
- 6) Behave professionally during seminars and class meetings

Failure to meet all six of these requirements will result in an Unsatisfactory grade (which means you fail the course).

## Course Requirements

You are responsible for making an appointment with the VSU Testing Office to schedule your Major Fields Test. Failure to score 140 or better will necessitate retaking the test in order to pass the course, and you will be responsible for any fees related to retaking the test. In addition, you will write a manuscript (rubric at end of syllabus) and give a presentation on your research paper.

## Student Conduct

You will be respectful of your classmates and your instructor. Cell phone use is not allowed during class. If I see you using your cell phone during class, you will be asked to leave. If this causes you to miss more than 20% of the class or seminar meetings, you fail the course.

## Course Policies: Technology and Media

**Email:** Please email me only from a VSU email account, and use [jreece@valdosta.edu](mailto:jreece@valdosta.edu). I will not respond to emails from any non-VSU accounts.

## Accommodations Statement

Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farber Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (Video Phone), and 229-219-1348 (TTY). For more information, please visit <http://www.valdosta.edu/student/disability> or email [access@valdosta.edu](mailto:access@valdosta.edu).

## Academic Integrity

**My Statement:** You can probably get away with some cheating/plagiarism. But, if I catch you, I will do everything I can to kick you out of my class and impose all possible penalties. I have zero tolerance, so do not risk it.

**University Prepared Statement:** Academic integrity is the responsibility of all VSU faculty and students. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and the syllabus. All students are expected to do their own work and to uphold a high standard of academic ethics. Cheating (including plagiarism) will not be tolerated. The instructor reserves the right to dismiss you from the course without credit if you are caught cheating. You will be respectful of your instructor and your fellow students at all times, or you will be dismissed from the class and potentially the course.

### **Class Schedule: see website for Seminar Schedule:**

<https://www.valdosta.edu/colleges/arts-sciences/science-seminars/>

Jan 12: There is no seminar and no class. Use this time to come up with two potential topics for your paper and presentation. See instructions below for choosing a synthesis topic  
Jan 19: Introduction/Choose topics/Plagiarism/How to sign up for Major Field Test  
Jan 26: How to do scientific literature searches- discussion of topics  
Feb 2: Final topic approval and 10 primary literature sources due  
Feb 9: work on paper, total of 15 primary literature sources due along with paragraph summarizing topic and incorporating primary literature  
Feb 16: Submit rough draft or outline to class peers for review  
Feb 23: Revise papers; sign up for presentation dates  
March 1: rough draft of paper due (midterm date); discussion of how to give a good presentation  
March 8: Work on paper revisions and presentations  
March 15: Spring Break- no class  
March 22: Written papers due (no late submissions); sign up for presentation dates and times  
March 29: Give presentations to class  
April 5: Give presentations to class  
April 12: Give presentations to class  
April 19: Major Fields Test must be completed and original score sheet turned in with passing score to be eligible to pass the course  
April 26: feedback on your papers

### **Scientific Paper Rubric**

The topic for the scientific paper is up to the student to determine, but must be approved by the professor (see Class Schedule). This website contains some helpful information on scientific writing:

<http://scwrl.ubc.ca/>

A satisfactory paper will meet the following minimum requirements:

- 1) 12 pages double spaced, with 1 inch margins, Times New Roman 12 pt font. Figures, Tables, and literature cited do not count towards the page total and should be at the end of the document. The header at the beginning with your name, title, etc, should take up no more than 3 lines of text.
- 2) Turned in on time
- 3) Include 15 approved primary literature citations
- 4) Coherent, informative, original work with spelling, grammar, and formatting that is publication quality. The format will match the scientific journal of the student's choosing, but it must match the chosen format, which will be indicated on the cover page of the paper.

### **Presentation Rubric**

The presentation will be on the same topic as the research paper.

A satisfactory presentation will meet the following minimum requirements:

- 1) Be no more than 12 minutes in duration, leaving 3 minutes for questioning
- 2) Include 15 approved citations
- 3) Be coherent, well organized, and presented in a clear and informative manner

### **Paper and Presentation Topics**

You are free to choose your own topic for your paper and presentation, but I have to approve it. Your paper will not be a term paper, instead, you have to write a synthesis paper. A synthesis paper is one that brings existing pieces of information together into something that is coherent and novel. This has to be something for which you can make a novel contribution simply by reading published studies. For example, do not choose curing cancer as your topic. You are unlikely to make a novel contribution. Do not choose a topic that is determining the range size of the eastern diamondback snake, you cannot figure that out by reading the published literature, and even if you found a paper that did that, you would just be reporting on another authors' findings, and thus your paper would not have anything novel. However, you could do a synthesis paper (and I'm getting a little silly here to make a point) on cancer in rattlesnakes. Perhaps you find several papers on cures for cancer in non-venomous snakes, and you find some papers on cancer rates in rattlesnakes, and you put those together to suggest some approaches to treating cancer that are likely to be effective in rattlesnakes. This is silly, but it represents an example of taking published information on one topic, combining it with published information on another topic, and producing a written product that is greater than the sum of its parts. Prior to such a work, there was no information on cancer in rattlesnakes, but by combining already known information you might fill in that knowledge gap. Your first attempt to choose a topic might be a bit too broad, and I will help you narrow it down to something more manageable. You might not know your specific topic until you start reading the literature, so when you see due dates for choosing references for your paper, do not just have a list of references by that date, make sure that you have actually read those papers by that date so that you have the information you need to narrow down your topic and start sketching out your paper.