
Biology Department, College of Arts & Sciences, Valdosta State University
SPRING 2017----COURSE SYLLABUS*

BIOL 4900, Section B. Senior Seminar (CRN 21291) - 1 credit hour

Times: Wednesday 3:30-5:20 pm, 2022 Bailey Science Center
Thursday 4:00-4:50 pm, Location to be determined
Times & locations of additional seminars/presentations will be announced when they are available.

Instructor: Dr. Jenifer Turco **Email:** jturco@valdosta.edu
Telephone: 229-249-4845 **Office:** 2091 Bailey Science Center
Office Hours: Wed., 1:30-2:30 pm, & Thurs., 12:30-1:30 pm; or by appointment.

BIOL 4900. Senior Seminar. 1 Hour.

Pre- or Corequisite: 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. (From VSU Undergraduate Catalog)

Required Items: (i) One CD or flash drive for the references, paper, and oral presentation (Email cannot be used to access your PowerPoint presentation); (ii) two thin, light-weight folder(s) for handing in assignments (Please do **not** use 3-ring binders for assignments); and (iii) paper clips or a stapler for organizing assignments

SPECIAL NOTES TO STUDENTS:

1. In order to respect the privacy of each student, grades will not be posted, given out by telephone, or sent to students by email.
2. Students should consult the VSU Student Handbook, Catalog, Semester Calendar, Schedule of Classes, & Registration Guide (all available online) for information about VSU policies and procedures regarding registration, drop/add, and withdrawal. March 2 is midterm. Students are not permitted to withdraw after midterm except in cases of hardship.
3. 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 Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU’s Access Office or email:access@valdosta.edu.
4. Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including pregnancy status, sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, national origin, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: Maggie Viverette, Director of the Office of Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 229-333-5463.
5. Cell phones, music players, and other electronic devices may not be used at any time in class or during outside presentations that are attended to satisfy requirements of this class.
6. Food is not permitted in the classroom.
7. No disruptive behavior will be tolerated. A student who engages in disruptive behavior will be asked to leave. If necessary, the campus police will be contacted.

(continued on next page.....)

***This is a tentative syllabus. Changes to this syllabus will be announced during class or posted on BlazeView.**

SPECIAL NOTES TO STUDENTS (continued from preceding page):

8. Students are expected to read and adhere to the following: (i) the VSU Student Code of Conduct as described in the VSU Student Handbook (<https://www.valdosta.edu/administration/student-affairs/student-conduct-office/student-handbook.php>) and (ii) the Biology Department policy on plagiarism (available online through the departmental Web site at <http://www.valdosta.edu/colleges/arts-sciences/biology/documents/resources/PlagiarismPolicy.pdf>). The instructor may use a variety of methods for detecting cheating and plagiarism. Cheating or plagiarism will result in a grade of “0” for the assignment and a grade of unsatisfactory (“U”) for the course. In addition, the instructor may complete a Report of Academic Dishonesty and submit it to the VSU Student Conduct Office.

9. At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available on BANNER. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators. Instructors will be able to view only a summary of all responses after they have submitted final grades. While instructors will not be able to view individual responses or to access any of the data until after final grade submission, they will be able to see which students have or have not completed their SOIs. These compliance and non-compliance reports will not be available once instructors are able to access the results. Complete information about the SOIs, including how to access the survey and a timetable for this term is available at [SOI Procedures and Timelines](http://www.valdosta.edu/academics/academic-affairs/sois/welcome.php) (located at <http://www.valdosta.edu/academics/academic-affairs/sois/welcome.php>).

COURSE OBJECTIVES

During successful completion of this course, each student will:

- (1) Research the formal, peer-reviewed, scientific literature to obtain information (both primary sources and review articles) about a specific topic in biology.
- (2) Read and organize the information collected, and submit the references to the instructor.
- (3) Demonstrate an understanding of the information collected by preparing an original, well-organized, and carefully-written paper on the topic.
- (4) Demonstrate an understanding of the information collected by giving a well-organized, thorough, oral presentation based on one of the primary scientific sources used in writing the paper. PowerPoint software must be used during the oral presentation, and the presentation should be 18 to 22 minutes long (with 5 additional minutes for questions).
- (5) Attend and prepare a very brief summary of a specified minimum number of outside presentations selected from a list provided by the instructor. (Details are given below; outside presentations are generally about one hour in length.)
- (6) Take the ETS Major Field test in biology and score at least 140.
- (7) Complete the departmental Senior Exit Questionnaire.

Alignment of Course Objectives with Educational Outcomes:

The **VSU General Education Outcomes** are available online at

<http://www2.valdosta.edu/gec/documents/matrixGenEdoutcomestocorecourses.pdf> ;

in this syllabus they are referred to as VSUA1, VSUA2, VSUB, VSUC, VSUD, and VSUE. The **Biology Undergraduate Educational Outcomes** (numbered 1-5) are available in the VSU Undergraduate Catalog, which is available online through <http://www.valdosta.edu> . In this syllabus the Biology Undergraduate Educational Outcomes are designated as B1-B5, and they are available at

<http://catalog.valdosta.edu/undergraduate/academic-programs/arts-sciences/biology/>

This course addresses the following educational outcomes:

VSU General Education Outcomes VSUA1, VSUC, and VSUD

Biology Undergraduate Educational Outcome B1

Course Theme: *Bacteria That Cause Disease in Humans*

Possible pathogenic bacteria (topics) will include the following: *Staphylococcus aureus*, *Streptococcus pyogenes*, *Streptococcus pneumoniae*, *Streptococcus agalactiae*, *Streptococcus mutans*, *Clostridium*

difficile, *Clostridium botulinum*, *Clostridium tetani*, *Clostridium perfringens*, *Corynebacterium diphtheriae*, *Bacillus anthracis*, *Listeria monocytogenes*, *Mycobacterium leprae*, *Mycobacterium avium-intracellulare*, *Mycoplasma pneumoniae*, *Neisseria meningitidis*, *Neisseria gonorrhoeae*, *Treponema pallidum*, Enterohemorrhagic *Escherichia coli* (Shiga toxin-producing *E. coli*), *Salmonella*, *Shigella*, *Yersinia pestis*, *Vibrio cholerae*, *Bartonella henselae*, *Bordetella pertussis*, *Francisella tularensis*, *Burkholderia pseudomallei*, *Coxiella burnetii*, *Haemophilus influenzae*, *Legionella pneumophila*, *Chlamydia trachomatis*, *Campylobacter jejuni*, *Helicobacter pylori*, *Vibrio vulnificus*, *Borrelia burgdorferi*, *Ehrlichia chaffeensis*, *Anaplasma phagocytophilum*, *Pseudomonas aeruginosa*, *Bacteroides fragilis*, *Chlamydia pneumoniae*.

Please keep in mind that some bacteria may be opportunistic pathogens.

SPECIFIC COURSE REQUIREMENTS/ASSIGNMENTS:

1. Students are expected to attend all scheduled class meetings. Any student who cannot attend one or more sessions should discuss this matter with the instructor prior to the absence. It is expected that all members of the class will participate in a brief discussion after each oral presentation is given. Therefore, be prepared to ask meaningful questions, critique the quality of the material presented, and raise meaningful issues related to the topic discussed.

2. Students will read the information on academic integrity (see item #8 in Special Notes to Students on page 2 of this syllabus). Each student will then sign a copy of Appendix A of the VSU Student Code of Conduct and a copy of the Biology Department policy on plagiarism to indicate that these policies have been read and understood.

3. Each student will attend and summarize the equivalent of at least 2 outside presentations selected from a list provided by the instructor. Please note that if a student misses the seminar that will be given during class on *Rickettsia prowazekii*, the student will be required to attend at least 3 outside presentations. Outside presentations are generally approximately one hour in length. In each instance, a presentation summary must be done on the form provided, and it must be submitted to the instructor within one week after the presentation. The summary must include the following: date, time, and location of the presentation; the full name of the speaker; the title of the presentation; and a few sentences about the material that was presented. Please be aware that there are special requirements for presentations that are part of the VSU Undergraduate Research Symposium in that a student must attend 3 student oral presentations, 3 poster presentations, the full debate session, or the full video competition in order to receive credit for one outside presentation in this course. A combination of oral and poster presentations (for example, 2 oral presentations plus one poster presentation) can also be used to meet the requirements for one outside presentation. **Presentation summaries must be submitted to the instructor within one week of the date of the presentation.** The last day for submitting presentation summaries related to the VSU Undergraduate Research Symposium is Thursday, April 20.

4. At this time, possible outside presentations include the following:

- A. April 10-13, 2017, Presentations given during the VSU Undergraduate Research Symposium (See schedule online for locations.)
- B. Connell Lecture (Sponsored by the Clyde Eugene Connell Visiting Lecture Program & VSU Department of Biology). Date, time, and location to be announced. Most likely, this lecture will be scheduled in the evening, and it is strongly recommended.
- C. Tuesday, February 7, 2017. College of Arts and Sciences Speaker Series, "Gun Control and the Second Amendment". Location and time to be announced.
- D. Tuesday, March 7, 2017. College of Arts and Sciences Speaker Series, "What Are American Values?" Location and time to be announced.

Additional possibilities may be added to this list as more information becomes available.

Please be aware that, if seminars are scheduled this semester on Thursdays from 4:00-4:50 pm, the number of outside presentations that students must attend will be increased.

5. Each student will select a general topic (due January 18) and a specific focus (due January 19 or January 25) for the research to be conducted. These topics must be submitted to the instructor on the indicated dates.

6. Each student will hand in complete, readable copies of the references to be used for the paper (including all tables and figures). These are due on Feb. 8; however, they can be submitted on Feb. 1, if desired. The references must include at least 6 peer-reviewed, formal scientific articles that are primary sources, plus at least 2 peer-reviewed, formal scientific articles that are review articles. Books and book chapters by experts on the topic may be used in addition to the review articles, but they are not required, and they may not be substituted for the primary sources. Primary sources must have been published between 2005 and 2017. It is suggested that the student make an effort to locate more recently-published review articles and book chapters. All sources must list references at the end, and the references must be cited within the text of the articles or book chapters. Do use interlibrary loan. If you rely only on free articles, your information may be incomplete. Web sites, Internet articles or fact sheets, newspaper articles, magazine articles, book reviews, and letters to the editor are NOT acceptable sources. Each primary source must be 3 or more pages in length. Four of the primary sources must contain 3 or more tables and/or figures per source. The copies of the references submitted on Feb. 8 will be returned to the student; however, the references must be re-submitted to the instructor when the paper is submitted.

7. In consultation with the instructor, each student will select the primary source that will be the focus of his/her oral presentation. This selection is due on Feb. 15.

8. Each student will hand in an original, well-organized, and carefully-written paper on the topic. The paper must be in review format. The paper must include the following: (i) the Title and Author, (ii) a Summary or Abstract; (iii) the main body of the paper; and (iv) the Literature Cited section. Be sure to proof-read your paper and make corrections before submitting it. Papers are due on March 8, but can be submitted on March 1, if desired.

The paper must be at least 13 pages, but must not exceed 15 pages in length, excluding the Literature Cited section. The Summary or Abstract (about 300 words) should be placed immediately after the Title and Author, on the first page. (Do not use a separate page for the title and author.) The paper must be typed in 12 point font, double-spaced, with margins set at 1 inch on all sides of the pages. A printed copy of the paper, as well as an electronic copy, must be submitted to the instructor.

About one-fourth to one-third of the main body of the paper must be devoted to general background information on the pathogen, its properties and transmission, the diseases it causes in humans, major signs and symptoms of these diseases; major virulence factors of the pathogen; treatment of and prevention of these diseases; and whether or not a vaccine is available. It should be noted if the pathogen is a primary pathogen or an opportunistic pathogen. The remaining two-thirds to three-fourths of the main body of the paper must be devoted to a more specific aspect of the topic. Examples of more specific aspects might include: antibiotic resistance in the particular pathogen; properties/research on a particular virulence factor of the pathogen; progress in development of a vaccine for prevention of diseases due to the pathogen; progress in developing better treatments for a specific disease(s) caused by the pathogen; or recent outbreaks of disease due to the pathogen. There are, of course, many other possibilities.

Papers may not include any direct quotations. A paper that is constructed from direct quotations does not convey an understanding of the material. Please take care to avoid plagiarism. A good way to avoid plagiarism is to read the papers, put them aside for a day or two, and then begin writing without looking at the original references.

For citing sources in the body of the paper, and for preparing the Literature Cited section, students should follow the Council of Science Editors (CSE) Name-Year Documentation guidelines, which are available online at https://writing.wisc.edu/Handbook/DocCSE_NameYear.html . This resource is part of the University of Wisconsin-Madison Writer’s Handbook, which is located on the Web site of The Writing Center @ The University of Wisconsin – Madison (<https://writing.wisc.edu/index.html>)

9. Your oral presentation must be focused on a single primary source selected by you and your instructor from the references in your paper. It must use PowerPoint software, and it must include: (i) brief, general background on the pathogen; (ii) background specific to the primary source; (iii) the questions that the authors addressed; (iv) the methods that the authors used to answer the questions; and (v) the results of the experiments and interpretations of the experiments.

To obtain a satisfactory grade, you must (i) look at all of the data and walk the audience through the data; do not merely accept the authors’ interpretations without critical analysis; (ii) include appropriate figures and/or tables; (iii) use appropriate text font on the PowerPoint slides; (iv) explain your presentation in a way that is understandable to your classmates; and (v) submit a readable, printed copy of the PowerPoint slides to the instructor immediately after the presentation. **In addition, you must not read your presentation,** although you may use index cards as aids during your talk. Reading of your presentation does not demonstrate understanding. **There will be no make-ups for the oral presentations except in the event of a documented, serious emergency.**

10. You must contact the VSU Testing Office located in Powell Hall to schedule a day and time to take the Major Field test. A score of at least 140 is required to achieve a grade of Satisfactory. You are required to take the Major Field test by no later than mid-term (Thursday, March 2, 2017). If you score less than 140, you must continue to re-take the test until you reach 140. The Biology Department will pay for your initial test; you are responsible for all fees associated with retaking the test. **No scores on the Major Field test will be accepted after NOON on Tuesday, May 1, 2017.** If the instructor has not received a score of 140 or more for you by that time, you will receive an Unsatisfactory grade (U) for the course.

TENTATIVE CLASS SCHEDULE (SUBJECT TO CHANGE)

<u>Wed. Jan. 11</u> Thurs. Jan. 12	Course Information; academic integrity policies To be announced
<u>Wed. Jan. 18</u> <u>Thurs. Jan. 19</u>	Selection of Topics Determining a specific aspect of your topic on which to focus your research Researching Your Topic (Library Instruction), Room 3270, Odum Library
<u>Wed. Jan. 25</u> Thurs. Jan. 26	“<i>Rickettsia prowazekii</i>: Tales of Persistence”, Seminar by Jenifer Turco Discussion, questions, etc.; hand in specific aspect of your topic on which you will focus your research. To be announced
<u>Wed. Feb. 1</u> Thurs. Feb. 2	Discussion, questions, etc.; References may be submitted To be announced
<u>Wed. Feb. 8</u> Thurs. Feb. 9	<u>References are due</u> To be announced
<u>Wed. Feb. 15</u>	Discussion, questions, etc.; References will be returned to students Determination of primary source for oral presentation

Thurs. Feb. 16	To be announced
<u>Wed. Feb. 22</u>	Senior Exit Questionnaire
Thurs. Feb. 23	To be announced
<u>Wed. Mar. 1</u>	Discussion, questions, etc.; Written papers may be submitted
Thurs. Mar. 2	To be announced
<u>Wed. Mar. 8</u>	<u>Written papers are due</u>
Thurs. Mar. 9	To be announced
	SPRING BREAK
<u>Wed. Mar. 22</u>	Oral Presentations
<u>Thurs. Mar. 23</u>	To be announced
<u>Wed. Mar. 29</u>	Oral Presentations
<u>Thurs. Mar. 30</u>	To be announced
<u>Wed. Apr. 5</u>	Oral Presentations
<u>Thurs. Apr. 6</u>	To be announced
Wed. Apr. 12	VSU Undergraduate Research Symposium (See schedule online for locations.)
Thurs. Apr. 13	VSU Undergraduate Research Symposium (See schedule online for locations.)
<u>Wed. Apr. 19</u>	Oral Presentations
Thurs. Apr. 20	To be announced
<u>Wed. Apr. 26</u>	To be announced; Oral Presentations
Thurs. Apr. 27	To be announced
<u>Thurs., May 4, 2:45-4:45 pm</u>	Final exam period – Reserved for possible make-up oral presentation(s) (only in the event of a documented, serious emergency)

GRADING – This course is graded Satisfactory (S) or Unsatisfactory (U).

*Selection of general topic (W, Jan. 18).....	10 points
*Selection of specific focus of research (W, Jan. 25).....	15 points
*Submission of references (W, Feb. 8).....	20 points
*Selection of primary source for oral presentation in consultation with instructor (W, Feb. 15).....	15 points
*Written paper (W, Mar. 8).....	400 points
Oral PowerPoint presentation on primary source (Schedule for W to be determined).....	380 points
*Submission of printed PowerPoint slides immediately after scheduled presentation.....	20 points
Attendance at a specified minimum number of outside presentations	20 points
*Timely submission of summaries of the outside presentations.....	20 points
Taking the ETS Major Field test in biology and scoring at least 140 (see p. 5 for deadlines).....	40 points
Completion of departmental Senior Exit Questionnaire (W, Feb. 22).....	30 points
Attendance at all scheduled classes & participation in class discussions.....	30 points

Total **1000 points**

PLEASE SEE ADDITIONAL REQUIREMENTS AND INFORMATION ON THE NEXT PAGE!

GRADING (CONTINUED)

There are 4 requirements to obtain a Satisfactory (S) grade in the course:

1. Satisfactory completion of ALL requirements & assignments ON TIME (see above list)
2. Scoring at least 280 points on the written paper
3. Scoring at least 266 points on the oral presentation & 14 points on the printed PowerPoint slides
4. Obtaining a total of at least 700 points in the course.

The grade is Unsatisfactory (U) for a student who fails to meet one or more of the above requirements. Please see additional, important information below.

Deductions to grade and additional policies:

--Each absence from class after the first absence will result in the loss of 50 points.

--For any assignment marked with a * in the GRADING list, a late submission will result in the loss of 20 points per day. All assignments marked with a * are due on a specific Wednesday. **In order to be accepted, a late assignment (marked with a *) MUST be submitted by 3 pm on the Friday immediately after the specific Wednesday when the assignment was due. Late assignments will not be accepted after this firm deadline.**

--There will be no make-ups for the oral presentations except in the event of a documented, serious emergency.

--Please note the firm deadline for taking the Major Field test and scoring 140. (See page 5.)

--The Senior Exit Questionnaire must be completed according to the schedule, except in the event of a documented, serious emergency.