

BIOL 4900 Senior Seminar

Fall Semester 2020

Instructor: Dr. Carter

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Herbarium: BC 1040

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Weekly Schedule

Science Seminar Series

Cancelled because of Covid-19 crisis; seminars will be virtual

Senior Seminar

Wednesday 5:00-6:50 pm BC 3009

Office Hours: Your instructor will be available for remote consultation through Collaborate Ultra in Blazeview 5:00 -6:50 PM Wednesdays and other times by appointment.

Use of BlazeVIEW D2L . Blazeview D2L will be used to facilitate communication between instructor and students and to disseminate various course materials and information and to administer assessments. Students are expected to log onto Blazeview daily to check for announcements and updates and to use Blazeview Mail for communication relating to the course.

Course Description. Pre- or Co-requisite: Completion of all required courses in the senior curriculum for the biolog \ P D M R U * U D G H G 3 6 D W L V I D F W R E L A P S E A N D C O U R S E I N B I O L O G Y . S T U D E N T S U \ ' D U H U H T X L U H G W R D W W H Q G R X W V L G H O H F W X U H V F K R V H Q E \ W K H L Q V W 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 . 7 K H S X U S R V H R I W K L V F R X U V H L V W R D V V A H T I C I W K H V W X G H C biology independently, to assimilate information, and to disseminate information logically in both written and oral form. Besides demonstrating comprehension of their topic and competence in communication skills, students must satisfactorily complete the ETS Major Field Test in Biology and complete the departmental Senior Exit Questionnaire for successful completion of the course.

Major Field Test. The ETS Biology Major Field Test is a comprehensive, standardized test designed to H Y D O X D W H W K H V W X G H Q W \ J D I S C I P L I N E S O F B I O L O G Y . T H E T E S T S C O R E S W I L L B E U S E D / X E to evaluate W K H H I I H F W L Y H Q H V V R I W K H G H S D U W P H Q W \ V F X U U L F X O X P D Q G national average to identify possible areas of weakness 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.

With regard to scheduling an appointment to take the Major Field Test, the Office of Testing has provided the following statement: Due to social distancing guidelines, there is a limited number of appointments available and a strict no walk-in policy ±no exceptions will be made. Students must schedule at <https://www2.registerblast.com/valdosta/Exam/List>. Students must complete the Major Field Test before the October 8 midterm date . A fee is assessed to take the Major Field Test. However, the Biology Department will pay the fee for each student to take the test once. Students who fail to score at least 140 have the option of re-taking the test until a score of 140 is achieved; however, the student will bear the cost for any re-taking of the Major Field Test. If the instructor has not received a report from the Testing Center of a score of at least 140 by 5:00 PM December 7, the student will receive a grade of Unsatisfactory (U) for the course. For more information on the Major Field Test in Biology please refer to the ETS website. (<http://www.ets.org/mft/about/content/biology>).

Virtual Science Seminars. Although face-to-face science seminars are normally scheduled for Tuesdays at 12:45 PM, all seminars will be virtual this semester because of the Covid-19 crisis. Each

student is required to complete and submit via Blazeview a 3-2-1 assessment for five (5) of these virtual seminars. Links for approved virtual seminars will be posted in Blazeview at approximately biweekly intervals, and students will be given one week to complete the 3-2-1 assessment for each of these seminars.

Plagiarism. Recognition of and respect for the ownership of property is one of the distinguishing features of civilization. Ideas come from individuals and are effectively owned by their originators; thus, ideas are intellectual property. In the academic sphere, we frequently deal with the ideas of others, most often in published form. As with tangible property, intellectual property is subject to ownership and protection. Moreover, publication establishes ownership of intellectual property. It is essential that we respect the ideas and writing of others and that we scrupulously cite all sources of any and all ideas that are not our own.

Outline of Term Paper. An outline of the term paper including a bibliography (list of references, properly cited and formatted) is required. The outline should include title, general sections or subheadings of the paper comprising at least four levels, and a list of references properly formatted for the References Cited section. The outline must be double-spaced, left-justified, and printed using 12-point Arial font. Below is an example of an outline with four levels. Each student should submit to the instructor her/his outline of the term paper as a MS Word file by placing the file in their allocated folder under BIOL 4900B on the Z-drive. The due date for the outline is provided below in the course schedule.

- I. Introduction
 - A. History of knowledge about Azolla-Anabaena symbiosis
 - B. General nature of Azolla-Anabaena symbiosis
 1. Symbiosis vs. mutualism
 2. Extent of symbiosis within Azolla
 - i. Number of species
 - ii. Distribution of species
 - iii. Proportio

and the principal questions that will be examined in the discussion section. Under the heading of Discussion, the introduction is followed by a detailed discussion of the subject containing references to specific scientific studies. Here discuss the subject in detail, citing references where appropriate. Finally, under the heading of Conclusion, the body of the term paper concludes with a summary based upon the review of the articles. Summarize the current state of knowledge on the topic, possibly suggesting additional kinds of research or analyses that might be done to explore the topic more fully or answer questions posed in the discussion section. Subheadings for each section may also be included as appropriate. The final section of the term paper is headed Literature Cited and must include at least seven (7) published references, at least five (5) of which must be primary literature, i.e., scientific articles from biological journals. Bear in mind that review articles are synthesized from the primary literature; however, they are not primary literature, but are more comparable with a textbook or a term paper. All references included in the literature cited section must be cited at least once in the body of the paper. Each reference must be in the following format: Author(s) Year enclosed in parentheses. If used at all, tables and figures should be numbered sequentially and placed in order (tables before figures) after the literature cited section.

Further restrictions on numbers and types of references. No more than one textbook or review article may be used or cited. Web sites and web pages shall neither be used, nor cited as sources.

Restrictions on use of direct quotations. Direct quotations are to be avoided. No direct quotation shall exceed five (5) words in length. If used, direct quotations must be set off in quotation marks and the author and date cited immediately after the quotation. Also, be reminded that sources of all paraphrased material and any ideas originating from others must be properly cited.

Citation of References. Citations within the body of the paper should be enclosed within parentheses. The following are examples: (Cronquist, 1981); (McNaughton and Wolf, 1973); (Baker, 1965; Chase et al., 2000; 3 HW t N. All references, including books, must be cited where appropriate in the body of the paper and listed in alphabetical order in a Literature Cited section.

materials, use the models provided by your instructor as guides to write the full reference citation, properly formatted, at the top of the first page of photocopied material. Errors can be readily corrected with minimal difficulty, if a good sharpened pencil is used instead of a pen.

Bear in mind that the student is expected to read and comprehend all cited materials. As each source is read and studied, notes should be taken with proper documentation, including the full reference citation. Detailed and precise citation of page numbers for each quoted or paraphrased element is especially useful and essential documentation. Note cards or larger sheets are useful to keep track of notes and documentation. If your notes include direct quotations, then set these off using quotation marks to avoid errors of plagiarism later. All sources of information should be accurately and scrupulously recorded at this stage of your research to avoid errors of plagiarism.

Do not depend too heavily upon direct quotations. When long series of direct quotations is strung together, it is usually readily apparent that little or no assimilation and synthesis has been done by the student. The same applies to paraphrased materials. Read from a variety of sources, fully documenting each on note cards or sheets of paper, and develop concepts as you go. Then synthesize this into a series of coherent sentences in your own words, citing all sources of information, data, or ideas within. Procrastinators beware! This requires time and effort and cannot be done effectively at the last minute.

Whenever possible, use primary sources. Also, be aware that the introductory sections of most journal articles include a short review of the research topic in which earlier works (usually primary sources) are cited. Although review articles and most books are secondary sources, they can provide easy entry into the body of literature on a topic. When the author of a review or book cites data, results, or ideas from an HDUOLHU ZRUN WKHQ LW LV WKH VWXGHQW¶V UHVSRQVLELWLW\ WR JR critically, and cite it.

Oral Presentation . Each student will be required to make an oral presentation on his/her research topic and will be allocated a total of 20 minutes for this

