Seminar in Biology  
BIO 4181

Lecture: Wednesday 1:00-1:50 (CAV 123)

Instructor Information
Dr. Nicholas J. Negovetich
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Office Hours: M-F 9:00-11:00; Other times by appointment

Course Description
A course designed to acquaint the student with the basic literature of the discipline and to encourage an exchange among biology majors and faculty members on selected topics.

Learning Outcomes
1. Students will learn how to find, evaluate, and use resources to explore a topic in depth
   – You will locate and identify primary, refereed journals and other literary resources in biology
2. Students will learn to develop skills in expressing their ideas orally and in writing
   – Students will synthesize a literature review article (report) and present an oral presentation based on the primary research literature in an area of biology that interests them (subject to approval)
3. Students will learn to analyze and critically evaluate ideas, arguments, and points of view
   – Students will gain experience in critically evaluating primary literature
   – Students will critically evaluate other students' scientific writing and oral presentations

Text
None. Reading material (handouts, articles, etc.) will be posted on Blackboard prior to class.

Course Format
This emphasis of this course is to acquaint you with the primary literature as you research a topic more thoroughly than what would have been discussed in a regular, lecture-based course. Working in small groups, individuals will collaborate as they write a review article on a topic of their choosing (subject to approval). We will discuss how to assess the quality of sources, and how to approach and read a journal article. Furthermore, each student will present a short (10-12 min) presentation on a journal article that explains and summarizes the research.

Point Breakdown
Final grades will be assigned as follows: A=100-90%, B=89-80%, C=79-70%, F=69% or lower. Standard rounding methods will be used (round up for 0.5 or higher). The percentage breakdown for each portion of the course is listed in the table below:

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Literature Review Article</td>
<td>40%</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>40%</td>
</tr>
<tr>
<td>Class Discussion/Participation</td>
<td>20%</td>
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</tbody>
</table>

Attendance
Attendance is required for the course, but absences are often unavoidable. Thus, each absence beyond 2 will result in the loss of a letter grade from your final average. More than 4 absences will result in automatic failure of the course.
**Academic Dishonesty**
Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in the [Angelo State University Student Handbook](#) and the [Angelo State University Catalog](#). Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU. The College of Science and Engineering adheres to the university’s [Statement of Academic Integrity](#).

**Special Accommodations**
Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. If any member of the class feels that they have a disability and needs special accommodations, then please contact an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#). Remember, it is your responsibility to initiate such a request by contacting an employee of the Office of Student Affairs.

**Religious Holy Days**
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

**Title IX**
The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU’s Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Boone, J.D.
Director of Title IX Compliance/Title IX Coordinator
Mayer Administration Building, Room 210
325-486-6357
michelle.boone@angelo.edu

You may also file a report online 24/7 at [http://www.angelo.edu/incident-form](http://www.angelo.edu/incident-form). If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345. For more information about Title IX in general you may visit [https://www.angelo.edu/title-ix](https://www.angelo.edu/title-ix).

**Technology in the Classroom**
I strongly encourage all with laptops/tablets to bring them to class for use during the course. **Cell phone usage is prohibited** (bring a scientific calculator if you need to use a calculator). Being told to put your cell phone away will result in a 2-percentage point deduction in your final course grade.

**Collaborative Learning Policy**
Many careers today are collaborative in nature. Furthermore, education research supports the use of
collaborative learning as a meaningful way for students to construct knowledge. The literature review article is collaborative. All other assignments should be completed individually. I expect that you will work professionally with your group and contact me with any concerns or questions regarding your group's progress. You will have an opportunity to assess the contributions of each member in your group.

**Information About the Assignments**

**Literature Review Article**

Working collaboratively (in groups), students will create a literature review article, which is a written report suitable for a scholarly audience on a current research topic in the biological sciences. The instructor must approve the topic. The article will be based on a synthesis of the primary research literature without plagiarism. You have the opportunity use plagiarism detection software to determine if your writing is original. I will help you to develop the article as we will discuss these concepts in class in some detail. Please see the *Instructions to Authors* handout for more detailed instructions and the grading rubric. Both are available on Bb.

The due dates for the article is posted on the class schedule. The draft of the paper is submitted via TurnItIn on Blackboard. This will check the paper for plagiarism and grammar, and it will allow me to distribute the original file to the class for peer review. You can submit updated copies until the due date. There will be a 1% reduction of the final review article grade for each day that the draft is late. Failure to turn in the draft will result in a 10% reduction of the final review article grade. Comments and suggestions from the peer review of the draft are to be considered for inclusion in the revised, final manuscript.

The final copy of the manuscript is submitted as a paper-clipped/stapled hard copy or as a PDF (word processor documents **will not be accepted**). The due date for the final, revised manuscript is included on the schedule. Late papers will be accepted at a 25% reduction of the final grade for each day they are late. This late penalty is applied after all other late penalties.

Each group will receive a grade for the final, revised manuscript (include any late penalty). The grading criteria will follow the grading rubric that is posted on blackboard. Adjustment to the grade for an individual student may be made as necessary based on peer and self-evaluation of the group.

**Oral Presentation**

Each student (individually) will create a 10-12 minute oral presentation on a current research paper in the biological sciences that is related to the literature review article. The instructor must approve the paper. A 2-4 minute question period from the audience will follow. The presenter is expected to have a level of understanding of the topic sufficient to answer reasonable questions from the student audience. Visuals are required and may be presented using presentation software. You may also bring in other objects when appropriate to the topic (e.g. handouts, maps, posters, zoology or botany specimens, agar plates, skeletal material, etc.). Please see the *Presentation Evaluation Handout* available on Bb.

Oral presentation scores will be calculated using an evaluation form, which is available on Bb. Your grade will be determined by a weighted average of the instructor’s score and the class average score after throwing out the extreme high and low scores. The due date for the presentation will be determined later in the semester. A copy (of link) of the presentation must be emailed to me 15 minutes before class on the day of the presentation. Due to the nature of the course, late presentations are not allowed except for extreme circumstances. If conflicts arise that would prevent the presentation on the assigned due date, then I must be notified ASAP so that we can reschedule the presentation.

**Class Participation**

You are expected to participate in various assignments and activities designed to facilitate your learning of the content of this course. Collectively, these assignments and activities are used to determine the class participation grade.

Assignments modules will be posted on blackboard and contribute 25% of the participation grade. These modules include brief presentations and assignments to help you prepare for class. Modules should be completed BEFORE coming to class. These assignments will be assessed by means of a task that is turned in or a blackboard quiz.
We will also read, critique, and discuss several primary literature papers during the course. This component represents 50% of the class participation grade. Of this grade, 50% will be based on the short quizzes taken at the start of the class, and 50% will be based on the in-class discussion and critique handout. The final component of class participation is the peer evaluation and audience participation during the oral presentations, which is the final 25% of the participation grade. Members of the audience will be graded by completing the evaluation form for each speaker. The names of the evaluators will be removed from the forms and the forms given to the presenter. I will assess the quality of the evaluation(s) to assign a final grade. In addition, all members of the class are expected to be involved in the question and answer session following each presentation. Students who are not present or do not participate will not have the opportunity to make-up missed points, even for an excused absence.
# Class Schedule
This schedule is tentative and subject to change

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment Due This Week</th>
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<tbody>
<tr>
<td>1/27/2021</td>
<td>Introduction - What is a Review Article?</td>
<td>Preliminary Questionnaire</td>
</tr>
<tr>
<td>2/03/2021</td>
<td>Discussion of a review article - Clarifying criteria for picking a topic</td>
<td>Literature Review Article Module (find and read the article)</td>
</tr>
<tr>
<td>2/10/2021</td>
<td>Using the library research tools</td>
<td>LIL Videos and Quizzes (up to Plagiarism video)</td>
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<tr>
<td>2/17/2021</td>
<td>Evaluating Primary Lit Sources</td>
<td>Topic and Presentation Approval Form Due Reading Primary Literature #1</td>
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<tr>
<td>2/24/2021</td>
<td>Evaluating Primary Lit Sources</td>
<td>Reading Primary Literature #2</td>
</tr>
<tr>
<td>3/03/2021</td>
<td>Evaluating Primary Lit Sources</td>
<td>Reading Primary Literature #3</td>
</tr>
<tr>
<td>3/10/2021</td>
<td>Citations and Formatting Writing for Clarity</td>
<td>Instructions to Authors Remaining LIL Videos and Quizzes</td>
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<tr>
<td>3/17/2021</td>
<td>Critiquing Scientific Writing</td>
<td>Critiquing Scientific Writing Module</td>
</tr>
<tr>
<td>3/24/2021</td>
<td>How to peer-review an article Preparing Oral Presentations</td>
<td>Review Article DUE Oral Presentation Module</td>
</tr>
<tr>
<td>3/31/2021</td>
<td>Addressing Reviewers Comments Critiquing Oral Presentations</td>
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<tr>
<td>4/07/2021</td>
<td>Student Presentations</td>
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<tr>
<td>4/14/2021</td>
<td>Student Presentations</td>
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<tr>
<td>4/21/2021</td>
<td>Student Presentations</td>
<td></td>
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<tr>
<td>4/28/2021</td>
<td>Student Presentations</td>
<td>Last Day to Drop Classes – April 30</td>
</tr>
<tr>
<td>5/05/2021</td>
<td>Student Presentations</td>
<td>Final, Revised Review Article DUE</td>
</tr>
<tr>
<td>5/12/2021</td>
<td>Student Presentations if Needed 1:00-3:00pm</td>
<td>FINAL EXAM WEEK</td>
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<tr>
<td>5/19/2021</td>
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*This is a tentative schedule for the semester. I will notify you in a timely manner should the schedule need to change. You will have the opportunity to list your top three preferred dates for your presentation. I will make the presentation schedule based on these lists.

+ Assignments are intended to provide you with background information so that you are prepared to participate in class. **Assignments should be completed BEFORE coming to class.** Click on the Assignments button in Bb to locate assignment modules.