

BIO 4181.020 - Seminar



Instructor: Dr. Russell Wilke

Email: rwilke@angelo.edu (preferred contact; please include your full name, ASU ID, and course section)

Phone: 325-486-6638

Office: CAV 108A (first floor)

Office Hours: TR 9-10, W 1:30-3:30, R 2-3:30 and by special appointment. First come-first served. In person visits will be limited to 15 minutes or may be moved to outdoor spaces (weather permitting) or to a virtual meeting place. In person visits will be limited to 15 minutes. Masks are encouraged for all meetings.



Course Information and Description.

In the professional world of Biology compiling, organizing, and presenting information to our peers is an important part of the peer review process. This course is designed to help you develop skills that will allow you to effectively search for information, organize it, and present it to others in what is called a “Literature Review.” Further it is designed to acquaint you with the basic literature of the discipline and to encourage the exchange of ideas. I expect you to read and follow directions, participate in discussions, and come to class prepared. You are always invited to ask questions.

Prerequisites

Junior standing for Biology Majors and Minors. Skills: Accessing Internet websites, Using Blackboard and ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations of the course.

Student Learning Outcomes and Goals

- Developing skills in written and oral expression and communication
- Learning how to find and use resources for answering questions or solving problems
- Learning to analyze and critically evaluate ideas, arguments, and points of view
- I expect you to read and follow directions, participate in discussions, and come to class prepared.
- You are always encouraged to ask questions.

Upon completion of this course, students will be able to:

- Locate and identify primary, refereed journals and other literary resources in biology.
- Synthesize a literature review article (report) & present an oral presentation based on the primary research literature in an area of biology that interests you (subject to approval).
- Critically evaluate other students’ scientific writing and oral presentations.

Course Delivery

This is a face-to-face course with online components that students are expected to access in [Blackboard](#).¹

Required Texts and Materials

All materials will be provided in-class and on Blackboard

Technology Requirements

To successfully complete this course, students need access to a computer/laptop or ASU computer lab and be able to navigate Blackboard

Communication

I will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend/Holiday messages may not be returned until Monday or return to normal class operations. .

Written communication via email (preferred): All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line AND you ASU CID #.

Virtual communication: Office hours and/or advising may be done with the assistance of the telephone, Collaborate, etc. Voicemails may take up to 48 hours for a response. Please leave a call back number.

Evaluation and Grades

Student learning outcomes will be assessed by a literature review article, oral presentation, and class participation (which includes assignment modules, in class activities, peer review evaluation and audience participation). Course grades will be determined as indicated in the table below.

Assessment	Percent of Total Grade	Grade Scale
Literature Review Article and Associated Assignments	40%	A = 90-100 %
Oral Presentation and Associated Assignments	40%	B = 80-89 %
Class participation and Outside Assignments	20%	C = 70-79 %
Total	100%	D = 60-69 %
		F = 0-59 %

Grading System

Course grades will depend on completing course requirements and meeting the student learning outcomes.

Your grade will be determined by points earned from the components listed below and the following formula:
Final Grade = (Written Report grade X 0.40) + (Oral Presentation grade X 0.40) + (Participation grade X 0.20)

Fatal Error Policy

Fatal errors are spelling, grammar, and formatting errors that prevent the reader from understanding the literature review article. Articles containing more than 3 fatal errors will be returned without a grade. Authors will have 24 hours to fix the error(s) and resubmit the article. Resubmitted articles will be graded, but will only be marked at 89% of the earned grade. So, the highest grade that can be earned if the literature review article must be resubmitted is a B and so on.

Late Assignment Policy

Due dates are firm. Assignments are due at the beginning of class or at the assigned time on Blackboard or email. Late assignments will not be eligible for the full point value. In general, late assignments will be deducted 15% of the total value for each day the assignment is late. Some In-Class assignments will not be able to be made up based on the nature of the assignment. No exceptions, you are upperclassman! And of course, some assignments may be turned in early.

Note: Printers run out of both toner and paper, this is not a valid excuse for a late assignment. Please plan accordingly.

Attendance Policy

You are required to attend all scheduled class meetings. There are no excused absences. 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. Participation points lost due to absences cannot be made up.

Assignment and Activity Descriptions

1. **Literature Review Article (40%):** You may work individually or in pairs to 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 should be aware that I will use plagiarism software (turnitin.com) to determine if your writing is original. You will however have the opportunity to use plagiarism 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 Bb for more information.
2. **Important Due dates for Literature Review Activities:** *All assignments are due at the beginning of class. Emailed assignments must be sent at least 30 minutes prior to class start time of 12 noon.*
 - a. **Research Tools- Sept. 14th Meet in Library – Room 110 (Assignment TBA)**
 - b. **Topic Selection Due –Sept. 14th;** The title and subject must be specific. Each student must turn this in...even those working in pairs. Form will be on Blackboard.
 - c. **3 Primary Literature Sources Due with critique –Sept 21st;** The articles must be current and from peer-reviewed sources directly related to your topic. You will summarize and critique one of the articles which includes the question investigated, relevant background, data, and conclusions along with a critique. If you are working in pairs, each person must find 3 different articles and you must each review a separate article. Make copies because these won't be returned to you.
 - d. **Outline Due – Sept 28th;** This is a 1 page outline with a separate literature cited page that outlines the structure of your paper. Each person must turn in a copy even those working in pairs. Class time will be spent on the assignment which will be due at the end of class.
 - e. **Final Draft Due – Oct 12th;** The final draft is due and is the final finished product. Each student or pair will submit 2 typewritten copies as well as email me a physical copy (e.g.Word) as an attachment (Do not use links to google docs) and turn it in on Blackboard. You must attach an actual copy to your email). Classmates will anonymously review your article, make comments, and return it to you. You are required to address/incorporate their critique and comments into a revised manuscript.
 - f. **Critiques Due – Oct 19th and 26th;** Each person will conduct a critical review of a draft submitted by your peers. The marked manuscript will be due at the end of class this day.
 - g. **Revised Final Draft Due- Nov. 2nd;** Each student will submit 1 typewritten copy of the revised manuscript, the marked draft(s) with reviewers comments, and an emailed physical copy as an actual attachment (No links to google docs).
 - h. **Policy on late literature review assignments –** Late literature review assignments will be deducted 15% of the total value for each day the assignment is late. No exceptions, you are upperclassman!

- i. **Grading Criteria for Literature Review Activities –**
 - i. Format, grammar, spelling, organization, neatness
 - ii. Content
 - iii. Response to student reviewers' comments
 - iv. Sources/References/Literature Cited (follows guidelines, citation format, peer-reviewed, correct usage, etc.)
 - v. Individual adjustments to your individual grade will be made as necessary based on peer and self evaluations.
- j. **Fatal error policy** - Fatal errors are spelling, grammar, citation, and formatting errors that prevent the reader from clearly reading the literature review article. Articles containing more than 3 fatal errors will be returned without a grade. An author will have 24 hours to fix the error(s) and resubmit the article. Resubmitted articles will be graded, but will only be marked at 89% of the earned grade. So, the highest grade that can be earned if the literature review article must be resubmitted is a B. Please see the Fatal Error Policy handout for a list of fatal errors available on Bb.

3. Oral Presentation (40%): Each student or pair will create a 10-12 minute oral presentation on a selected biology-related research project (The instructor must approve the topic). The presentation will be mainly based on an in-depth understanding of a primary literature article, but coverage of related literature is encouraged. A 3-5 minute question period from the audience will follow. The presenter(s) are expected to have a level of understanding of the topic sufficient to answer reasonable questions. If working in pairs, the presentation must be split evenly and each person must explain at least one of the required data visuals (see below).

- a. Visuals are required and may be presented using software of your choosing. (Be aware the university only has Power Point, but web-based are okay too).
- b. The visuals must include at least TWO data tables, figures, and/or graphs from the literature that you are able to summarize and explain to the audience. Photos and explanatory flow charts may also be included, but do not count for the required data component.
- c. You must also have title slide and a literature cited slide. More information will be provided in class and on Bb.
- d. 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).
- e. A flashy presentation does not automatically earn you a high grade—good content and ability to communicate does.

4. Important Due dates for Oral Presentation:

- a. **Presentations will be scheduled randomly from Oct. 26th-Nov. 30th.** We will usually listen and review to 2-3 per class meeting until all presentations are given.
- b. **One day before your oral presentation** - Email me a physical copy (attachment not a link) of your presentation) and turn it in on Bb.
- c. **Day of your presentation** - Please bring a copy of your presentation on a Flash (USB) drive **or on your ASU Personal or P Drive**. The presentation will be critiqued by your peers.
- d. **Grading criteria overview:** Oral presentation scores will be calculated using an evaluation form, which will be available on Bb. We will discuss appropriate presentation styles in lecture. Your grade will be determined by an average of the instructor's score and the class average score after throwing out the extreme high and low scores.
 - i. **Design and Structure:** demonstrate your ability to synthesize and organize info from the primary literature and interpret data in a logical fashion (i.e. present a clear introduction at to what will be presented and why, use an overall logical sequence, clearly identify main ideas, make smooth transitions between major points, use good examples, interpret

appropriate data, provide a thorough summary, give credit for ideas and data by citing references on each slide as they are used.

- ii. **Content Factors:** demonstrate an in-depth understanding of your topic (i.e. provide clear examples, use appropriate vocabulary, draw logical conclusions based on data, provide thought provoking discussion of implications, answer audience questions clearly and correctly).
- iii. **Oral Presentation Skills:** demonstrate your ability to convey information to other (i.e. use legible text/visuals that effectively illustrate concepts or data, show enthusiasm for your topic, be aware of your physical space and that of the audience, maintain eye contact, speak with good tone, volume, and rate/speed, avoid nervous gestures, verbal crutches (um's, ah's, etc), and unprofessional posture, and finally stay within the time limits.
- iv. **Policy on late presentations:** Late presentations will be deducted 25% of the total value for each day it they are late, specifically because they have to be rescheduled. No exceptions. For students working in pairs, both parties must have their work completed or the presentation will be considered late.

5. Class Participation (20%): You will be required to participate in various assignments and activities designed to facilitate your learning of the content and skills required in this course.

- a. **Assignment Modules:** These modules include in-class presentations and assignments as well as out of class (homework) assignments to help you prepare. Modules will be assigned in class and should be completed BEFORE coming to the next class. These assignments will be assessed on an all or none.
- b. **In class activities:** You must be present and you must participate to receive credit. These assignments will be assessed on an all or none basis.
- c. **Literature Review Critique and Discussion:** This is your critical review of your peer's literature review manuscript and will be conducted primarily in-class
- d. **Peer Evaluation and Audience Participation:** 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. In addition, all members of the class are expected to be involved in the question and answer session following each presentation.
- e. **Policy on missed class participation:** Students who are not present or do not participate will not have the opportunity to make-up missed points, even for an excused absence. This is because there is no way to replicate the assignment outside of class.

SEMINAR TOPIC SELECTION PRIMER.

Your topic must be biologically based and it must be based on peer-reviewed, primary literature. An encyclopedic look at a general health or medical issues, (e.g. symptoms or treatments of AIDS, diabetes, cancer, anterior cruciate ligaments, etc.), disease cause (e.g. the role of cholesterol in heart disease), or basic biological concepts (e.g. photosynthesis, natural selection) **are unacceptable**.

Your topic must be specific and represent **current research** in the **biological literature (emphasize sources that are no more than 10 years old)**. In other words I do not want you to teach your audience about a topic that is generally understood, I want you to inform them about what is new and currently being researched about a particular topic in biology.

Select a topic that is interesting to you and that you would like to learn more about. You may find that you have to do reading from general sources to get a basic understanding of your topic before you even begin to get into the current scientific literature. If you have a favorite topic but after a concerted effort in the library you cannot find sufficient primary research literature, change topics.

Select a topic for which you can give a complete, in-depth discussion of the recent research in 10-15 minutes. The review paper will be a synthesis of the papers you select (plus additional literature). This isn't a lot of time, so for a short presentation, a narrow topic works better than a broad one (e.g. "presence of feathers on dromaeosaurid theropods from the Cretaceous of China" - rather than "evolution of birds"; or "latest research on homeobox genes" – rather than "current findings in genetics.").

Select a topic on which you feel confident that you can answer questions after having studied the research literature. Remember, you will be the "class expert" on the day of your presentation and will be expected to have a broad understanding of your topic, so you should be familiar with the background material. Students working in pairs will both be expected to know all areas of the project.

Ask yourself: Will your audience be interested in the topic? Will your audience have the background to understand your topic? If not, how much background will you need to provide in order for your audience to follow your talk?

We will discuss all of these in class. And please, ask questions!

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)²
- [Angelo State University Catalog](#)³

Academic Integrity

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](#).⁴

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

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. It is the student's responsibility to initiate such a request by contacting 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](#).⁵ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dr. Dallas Swafford
Director of Student Disability Services
Office of Student Affairs

325-942-2047

dallas.swafford@angelo.edu

Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁶ for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)⁷ in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to evaluation for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).⁸

Student Absence for Observance of 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. See ASU Operating Policy 10.19 [Student Absence for Observance of Religious Holy Day](#)⁹ for more information.

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)¹⁰

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.miller@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter by law and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence

about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State’s policy please visit the [Title IX website](#).¹¹

Information About COVID-19

Please refer to ASU’s [COVID-19 \(Coronavirus\) Updates](#)¹² web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification on potentially short notice based on developing circumstances.

Tentative Course Schedule

Week	Date	Activities	Assignments
1	Aug. 24 th	Introduction, Review of Characteristics of Science, Defining “Research.”	None
2	Aug. 31 st	Understanding a Literature Review Article, Sources of Information, and Clarifying Topic Selection Criteria	TBA
3	Sept. 7 th	Review Searching Primary Literature; Evaluating Primary Literature Sources	TBA
4	Sept. 14 th	MEET IN LIBRARY – ROOM 110. (Glass area on first floor). Using research tools for finding primary/peer reviewed articles for literature review paper	Due: Topic Selection Form Due (On Blackboard)
5	Sept. 21 st	Writing for clarity, flow and content: Preventing Plagiarism	Due: 3 primary articles; perform summary critique of one (per student)
6	Sept. 28 th	Writing for clarity, flow and content: Outlines Due at end of class.	Due: Outline of lit. review with citations
7	Oct. 5 th	Writing—assistance as needed	None
8	Oct. 12 th	Critiquing Scientific Writing – Critical analysis of writing and addressing reviewer comments	Due: Final Draft of Lit. Review Paper - 3 hard copies and 1 emailed; In-Class Critiques
9	Oct. 19 th	Planning, Preparing, and Critiquing Oral Presentations	Due: Review of Peer’s Literature Review In-Class Critiques
10	Oct. 26 th	Student presentations (2-3/class meeting)	Due: Critiques of Peer’s Literature Review
11	Nov. 2 nd	Student presentations (2-3/class meeting)	Due: Revised Final Draft: incorporate reviewer comments (1 hard copy; 1 emailed)

12	Nov. 9th	Student presentations (2-3/class meeting)	Review and Critique Presentations
13	Nov. 16th	Student presentations (2-3/class meeting)	Review and Critique Presentations
14	Nov. 23rd	Student presentations (2-3/class meeting)	Review and Critique Presentations
15	Nov. 30th	Student presentations (2-3/class meeting)	Review and Critique Presentations
16	Dec. 7th	Final Exam Week – Late Presentations if needed 1-3pm	Review and Critique Presentations

*This is a tentative schedule for the semester. However, assignment and presentation due dates are firm. I will notify you in a timely manner should the schedule need to change. You will have the opportunity to list your top 3 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. Therefore assignments should be completed BEFORE coming to class.

¹ <https://blackboard.angelo.edu/>

² <https://www.angelo.edu/current-students/student-handbook/>

³ <https://www.angelo.edu/academics/catalog/>

⁴ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

⁵ <https://www.angelo.edu/current-students/disability-services/>

⁶ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁷ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

⁸ https://www.angelo.edu/current-students/writing-center/academic_honesty.php

⁹ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

¹⁰ <https://www.angelo.edu/incident-form>

¹¹ <https://www.angelo.edu/title-ix>

¹² <https://www.angelo.edu/covid-19/>

Student Agreement Sheet-BIOLOGY 4181 Seminar

I, _____, (print your name) have read the information contained in the biology 4181 Seminar Syllabus for the **FALL 2021 semester** at Angelo State University and fully understand the expectations and requirements for completing this course successfully. In addition, I pledge to maintain the highest standards of academic honesty, integrity, communication, and discipline while I am enrolled in this course.

LECTURE section (day & time) _____.

Academic Major _____.

Academic Classification _____.

ASU ID # _____.

ASU Email address and other email address you check regularly (required):

_____.

Phone # (optional) _____. In some rare cases I have found it necessary to contact a student.

I acknowledge I have received and am responsible for the material contained in the syllabus.

SIGNATURE: _____.

DATE: _____.

Tell me about yourself:

1. Tell me a little about yourself. Where are you from?

2. What do you want to do with your degree?

3. What are you most proud of and why?

4. What are your goals in life?

