Biology 4181-Seminar in Biology
Spring 2020

INSTRUCTOR CONTACT INFORMATION:
Dr. Russell Wilke
Email: rwilke@angelo.edu (preferred contact)
Office: Cavness 108-A
Phone: 325-486-6638
Office hours: T 2-330, W 130-330, R 930-1130, 2-330
Appointments at mutually convenient times may be made via email

COURSE OVERVIEW: In the professional world of biology compiling, organizing, and presenting information to our peers is a vital necessity. 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. I expect you to read and follow directions, participate in discussions, and come to class prepared. You are always invited to ask questions.

COURSE MATERIALS: There is no textbook required for this course.
- Internet access to use Blackboard (Bb) and turnitin.com.
- Flash (USB) drive or ASU P drive
- ASU email account that is checked at least once daily

COURSE STUDENT LEARNING OUTCOMES:
- 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

STUDENT LEARNING OUTCOMES: By the end of this course, successful students should 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.

METHOD OF ASSESSING STUDENT LEARNING OUTCOMES AND EVALUATION CRITERIA:
The 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).

<table>
<thead>
<tr>
<th>Grading Scheme</th>
<th>Grading Scale</th>
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<tr>
<td>Literature Review Article and Associated Assignments</td>
<td>40%</td>
</tr>
<tr>
<td>Oral Presentation and Associated Assignments</td>
<td>40%</td>
</tr>
<tr>
<td>Class participation and Outside Assignments</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Grading Scale:
- A = 90-100 %
- B = 80-89 %
- C = 70-79 %
- D = 60-69 %
- F = 0-59 %

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)
MORE ABOUT ASSESMENT OF STUDENT LEARNING OUTCOMES:

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.*
   b. **Topic Selection Due – February 5th**: 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 – February 12th**: 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 – February 19th**: 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 – March 4th**: 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 – March 17th**: 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 – March 25th**: 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 10% of the total value for each 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 March 25th - May 4th**. 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. If you don’t know what that means, you’ll have to do some studying on that as well. 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.

Will you 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 to provide in order for your audience to follow your talk?

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
Angelo State University Catalog

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 Statement of Academic Integrity. Any form of cheating or plagiarism in this course will result in a zero on the assignment for all involved.
PLAGIARISM
Plagiarism is a serious topic covered in ASU’s Academic Integrity policy 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 be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

A NOTE ABOUT LITERATURE REVIEW DRAFTS
Many students assume that a draft of their work constitutes little more than "what they have ready" at the time. To this end, many drafts that I’ve received are slapdash documents with numerous errors. This could not be more wrong. A draft should be a complete document containing all of the essential elements of your literature review. Further, a draft should be free of spelling and grammatical errors and have consistent formatting. Drafts should also have been subject to numerous revisions by you and your peers. Finally, if you've done all of the above, a draft should be a document that you can take pride in knowing that you've done your very best.

Any draft that I receive that fails the fatal error policy (see below) will be returned and resubmission will be required. Resubmissions will not be eligible for the full point value for the assignment.

FATAL ERROR POLICY
Fatal errors are spelling, grammar, 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. 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.

DUE DATES
Due dates are firm. Assignments are due at the beginning of class. Assignments turned in after class has begun will not be eligible for the full point value. 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 you final average. More than 4 absences will result in automatic failure of the course. Participation points lost due to absences may not be made up.

STUDENT ABSENCE 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 for more information.

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 at www.angelo.edu/ADA. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Ms. Dallas A. Swafford  
Director of Student Disability Services  
325-942-2047  
dallas.swafford@angelo.edu  
Houston Harte University Center 112  

TITLE IX AT ANGELO STATE UNIVERSITY  
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  
325-942-2022  
michelle.boone@angelo.edu  

You may also file a report online 24/7 at www.angelo.edu/incident-form. If you wish 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.
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<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>TOPIC</th>
<th>Assignments</th>
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<tr>
<td>1</td>
<td>Jan. 15th</td>
<td>Introduction, Understanding a Literature Review Article, Sources of Information, and Clarifying Topic Selection Criteria</td>
<td>None</td>
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<tr>
<td>2</td>
<td>Jan. 22nd</td>
<td>Review Searching Primary Literature; Evaluating Primary Literature Sources</td>
<td>TBA</td>
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<tr>
<td>3</td>
<td>Jan. 29th</td>
<td>MEET IN LIBRARY – ROOM 110. (Glass area on first floor). Using research tools for finding primary/peer reviewed articles for literature review paper</td>
<td>TBA</td>
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<tr>
<td>4</td>
<td>Feb. 5th</td>
<td>Writing for clarity, flow and content: Critiquing Scientific Writing Pt. 1</td>
<td>Due: Topic Selection Form Due (On Blackboard)</td>
</tr>
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<td>5</td>
<td>Feb. 12th</td>
<td>Writing for clarity, flow and content: Preventing Plagiarism</td>
<td>Due: 3 primary articles; perform summary critique of one (per student)</td>
</tr>
<tr>
<td>6</td>
<td>Feb. 19th</td>
<td>Writing for clarity, flow and content: Outlines Due at end of class.</td>
<td>Due: Outline of lit. review with citations</td>
</tr>
<tr>
<td>7</td>
<td>Feb. 26th</td>
<td>Writing—assistance as needed</td>
<td>None</td>
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<tr>
<td>8</td>
<td>Mar. 4th</td>
<td>Critiquing Scientific Writing Pt. 2 – Critical analysis of writing and addressing reviewer comments</td>
<td>Due: Final Draft of Lit. Review Paper (3 hard copies and 1 emailed); In-Class Critiques</td>
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<td>Mar. 11th</td>
<td>SPRING BREAK – NO CLASSES</td>
<td>Critiques if necessary</td>
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<td>9</td>
<td>Mar. 17th</td>
<td>Planning, Preparing, and Critiquing Oral Presentations</td>
<td>Due: Critiques of Peer’s Literature Review</td>
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<tr>
<td>10</td>
<td>Mar. 25th</td>
<td>Student presentations (2)</td>
<td>Due: Revised Final Draft: incorporate reviewer comments (1 hard copy; 1 emailed)</td>
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<td>11</td>
<td>Apr. 1st</td>
<td>Student presentations (2-3)</td>
<td>Review and Critique Presentations</td>
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<tr>
<td>12</td>
<td>Apr. 8th</td>
<td>Student presentations (2-3)</td>
<td>Review and Critique Presentations</td>
</tr>
<tr>
<td>13</td>
<td>Apr. 15th</td>
<td>Student presentations (2-3)</td>
<td>Review and Critique Presentations</td>
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<tr>
<td>14</td>
<td>Apr. 22nd</td>
<td>Student presentations (2-3)</td>
<td>Review and Critique Presentations</td>
</tr>
<tr>
<td>15</td>
<td>Apr. 29th</td>
<td>Student presentations (2-3)</td>
<td>Review and Critique Presentations</td>
</tr>
<tr>
<td>16</td>
<td>May 4th</td>
<td>Final Exam Week – Late Presentations if needed 1-3pm</td>
<td>Review and Critique Presentations</td>
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*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.
Assignments should be completed BEFORE coming to class.
Student Agreement Sheet-BIOLOGY 4181 Seminar

I, ________________________________, (print your name) have read the information contained in the biology 4181 Seminar Syllabus for the SPRING 2020 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. Where are you from?

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

3. What are you most proud of and why?

4. What are your goals in life?