

Senior Seminar in Biochemistry
BIOL 385
Spring 2019

Instructor information

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Office Hours: Mondays 1pm-3pm, Wednesdays 9-10am, Fridays 9-10am, or by appointment

Pre-requisites

Prerequisites: senior standing in Biology, Chemistry, or Biochemistry and CHEM 302 and CHEM 304 (1 credit).

Course Description

Discussion of current literature, recent advances, perspectives, or selected topics in Biochemistry.

Class meetings

Fridays 1.30pm-2.20pm, ISC 136

Learning Objectives

Students who complete this course successfully will be able to:

- (1) Find, understand, and analyze scientific literature, with an emphasis on current topics in biochemistry.
- (2) Understand and interpret data from scientific articles, and explain how it relates to the main hypothesis of the article.
- (3) Evaluate the strengths and weaknesses of a scientific article
- (4) Be able to present an original, written analysis of articles from the primary literature.
- (5) Create a formal presentation about your work, and respond to feedback from myself and your peers.
- (6) Analyze and be able to give thoughtful, constructive criticism to your peers

Grading

Assignment	Due Date	Points
Weekly Participation		15 points
Assignment 1 (article discussion questions)	2/1	3 points
Assignment 2 (find three articles related to topic)	2/8	3 points
Assignment 3 (paper topic)	2/15	3 points
Assignment 4 (group article discussion)	varies	10 points
Assignment 5 (draft of paper due for peer review)	3/1	6 points
Assignment 6 (comments of peer's draft)	3/15	10 points
Assignment 7 (presentation on topic)	varies	20 points
Assignment 8 (draft of paper due to me)	4/5	10 points
Assignment 9 (final version of paper)	4/26	20 points
Total		100 points

The following scale will be used to calculate final grades. Student point totals or grading scheme maybe adjusted to reflect course difficulty or section differences (instructor's discretion).

A = 100-93%	A ⁻ =92.9-90%	B ⁺ = 89.9-87%	B = 86.9-83%
B ⁻ = 82.9-80%	C ⁺ = 79.9-77%	C = 76.9-73%	C ⁻ = 72.9-70%
D = 69.9-60%	E = 59-0%		

Attendance and Participation

Attendance for this class is mandatory. **Missing class without permission of the instructor will result in a 2 points deduction from your participation grade for each absence.** For approved absences, students must make the arrangements with the instructor to make up any missed assignments.

Participation makes up a significant portion of your grade. Each week you can earn 1 point for participation by speaking during class – it is expected that you ask a question, answer a question, or speak up during a discussion at least twice during class every week (hopefully more!). I will be keeping track of participation, and will provide you with feedback midway through the semester on your current participation grade.

Academic Dishonesty & Plagiarism

Students are expected to adhere to the University's policy on academic dishonesty and plagiarism, located in the student handbook. Academic dishonesty and plagiarism have serious consequences, and if you're struggling in class, please ask for help rather than resort to academic dishonesty! Academic dishonesty will result in a zero on the assignment or exam. In addition, a report will be filed to the department chair and Dean of the College, and a record of academic dishonesty will be placed in the student's file at the Dean of Students Office.

Disability

Under the Americans with Disabilities Act and Section 504 of the Vocational Rehabilitation Act of 1973, all students, with or without disabilities, are entitled to equal access to the programs and activities of SUNY Geneseo. If you believe that you have a disabling condition that may interfere with your ability to participate in the activities, coursework, or assessment of the object of this course, you may be entitled to accommodations. Students should contact Dean Buggie-Hunt in the office of Disability Services (tbuggieh@geneseo.edu or 585-245-5112) and their faculty to discuss needed accommodations as early as possible in the semester.

Tentative Schedule

Date	Topic
<p>January 25th</p>	<p>Introduction:</p> <p>Description about course assignments and requirements</p> <p>Discussion about journals, types of scientific articles, and how to find articles</p> <p>Form groups and choose paper discussion date</p> <p>Sign up for individual article presentation date</p>
<p>February 1st</p>	<p>Article I: A bacterium that can grow up using arsenic instead of phosphorus by Wolfe-Simon, et al.</p> <p>Assignment 1 due – discussion questions for article 1 by Wolfe-Simon, et al.</p>
<p>February 8th</p>	<p>Article II: Structure of the TRPV1 ion channel determined by electron cryo-microscopy by Liao et al</p> <p>Assignment 2 due- Brainstorm paper topics, and find three articles related to your topic. List your potential paper topic and have a digital copy of at least one article available in class.</p>
<p>February 15th</p>	<p>Group #1: Article discussion</p> <ul style="list-style-type: none"> • Email me copy of paper you choose and accompanying discussion questions by Sunday, Feb 10th <p>Assignment 3 due. Choose paper topic.</p>
<p>February 22nd</p>	<p>Group #2: Article discussion</p> <ul style="list-style-type: none"> • Email me copy of paper you choose and accompanying discussion questions by Sunday, Feb 17th

March 1st	<p>Group #3: Article discussion</p> <ul style="list-style-type: none"> Email me copy of paper you choose and accompanying discussion questions by Sunday, Feb 24th <p>Assignment 5 due - turn in first draft of paper, for peer review</p>
March 8th	<p>Group #4: Article discussion</p> <ul style="list-style-type: none"> Email me copy of paper you choose and accompanying discussion questions by Sunday, March 3rd
March 15th	<p>Group #5: Article discussion</p> <ul style="list-style-type: none"> Email me copy of paper you choose and accompanying discussion questions by Sunday, March 10th <p>Assignment 6 due: turn in comments/peer review on draft 1.</p>
March 22nd	Spring Break-No classes
March 29th	<p>What makes a good presentation? Workshop and peer review, bring the current version of your slides with you to class</p>
April 5th	<p>Assignment 7: Student Presentations (#1 and #2)</p> <p>Assignment 8 due: Draft #2 Due for papers, turned in to me.</p>
April 12th	Student presentations (#3, #4)
April 19th	Student presentations (#5, #6)
April 26th	<p>Student presentations (#7, #8)</p> <p>Assignment 9 due: Final version of paper</p>
May 3rd	Student presentations (#9, #10)

The schedule may change at the discretion of the instructor based on class progression.