

BIOL 385: Senior Seminar in Biochemistry
Spring 2019, Wed 10:30-11:20 ISC 137

Instructor

Hristina Nedelkovska
Office: ISC 139B
Phone: 585-245-6396
Email: nedelkovska@geneseo.edu
Office hours:
Monday 12:30-1:30
Tuesday 2:30-3:30
Thursday 10:00-11:00
Also by appointment

Course Description

Discussion of current literature, recent advances, perspectives, or selected topics in Biochemistry. Prerequisites: senior standing in Biology, Chemistry, or Biochemistry and CHEM 302 and CHEM 304. (1 credit)

Course Objectives

By the end of this course you will be able to:

- (1) Find and identify relevant primary scientific papers in the field biochemistry.
- (2) Understand and analyze scientific literature, with an emphasis on current topics in biochemistry.
- (3) Effectively read, interpret and critically evaluate peer reviewed scientific journal articles.
- (4) Present an original, written analysis of articles from the primary literature.
- (5) Deliver a clear and focused oral presentation for a broad scientific audience based on your research topic.
- (6) Respond to feedback and constructive criticism from your peers, as well as instructor, which is critical since peer review is an essential part of the scientific process.
- (7) Peer review your classmates' work and give constructive criticism.
- (8) Further develop your teamwork and collaborative skills.

Grading

Weekly Participation	14 pts
Weekly Assignments	14 pts
Paper Presentation	16 pts
Draft 1 – Peer review	10 pts
Draft 2 of paper	10 pts
Final Paper	20 pts
Final Presentation	16 pts
Total:	100 pts

The following scale will be used to calculate final grades.

A (93-100%)	A- (90-92%)	
B+ (87-89%)	B (83-86%)	B- (80-82%)
C+ (77-79%)	C (73-76%)	C- (70-72%)
D (60-69%)		
E (<60%)		

- Grade disputes must be initiated within one week from when the assignment was handed back.

Group Presentations:

Students will work in groups of two to select a **primary literature paper (must be 2015 or later and cannot be a review or an opinion paper)** in biochemistry and present it in class making sure to focus on generating discussion. Each group must select a paper the latest by Sunday (please refer to schedule below for dates) before their presentation and email it to me along with a worksheet of 6-10 discussion questions. The rest of the class must read the assigned papers and be prepared to discuss it in class. Participating in lively discussions are a key to success for this portion of the course!!! In addition each student must answer the questions on the discussion sheet (will be available on Canvas along with the paper for that week) and select which figure they believe is the most important figure of the paper along with an explanation behind their choice. These assignments will be collected in class.

The group presentations will be graded by your professor and your peers. Below I'm including the marking guide that will be used to assess the presentations.

Peer Evaluation Form for Biochemistry Seminar Presentations

Presenters:

Title:

Date:

Rate each of the following areas on a scale from 1-5

1 = poor 2 = fair 3 = good 4 = very good 5 = excellent

Category	Rating	Comments
<p>CONTENT Topic introduced well, identified rationale/hypothesis, advanced understanding of the experimental approach and significance, conclusions, content appropriate and accurate, in logical order</p>		
<p>ORGANIZATION Presentation easy to follow, divided into appropriate sections, good transitions between slides, coherent, flowed logically</p>		
<p>DELIVERY Good eye contact with audience, spoke clearly, uses proper terminology, all members prepared well, did not just read from notes</p>		
<p>CREATIVITY/VISUAL AIDS Kept audience engaged, used visual aids, well placed images, very little text on slides, all figures labeled properly, original presentation</p>		
<p>CRITICAL EVALUATION OF DATA Critically evaluated results and conclusions, Group analysis of paper not just what authors discuss, understanding implications of data</p>		
<p>GROUP DISCUSSION AND QUESTIONS Understood audience questions, thoroughly responded to questions, led discussion well, interacted with audience</p>		

Attendance: Class attendance is mandatory. For excused absences, if you are missing a paper presentation you will have to turn in a **1-2 page summary of the paper discussed in addition to that week's assignment**. This has to be completed by the following class in order for full credit to be received. For unexcused absences you will lose both participation as well as that week's assignment points as you will not be allowed to make it up. Unexcused absences where you miss a classmate's presentation will count double.

Disability Accommodations SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional, or cognitive disabilities. Accommodations will be made for medical conditions related to pregnancy or parenting. Requests for accommodations

including letters or review of existing accommodations should be directed to the Office of Disability Services in Erwin 22 (Ms. Heather Packer in the Office of Disability Services (disabilityservices@geneseo.edu or 585-245-5112). Students with accommodation letters should contact their faculty members as early as possible in the semester to discuss specific arrangements. Additional information on the Office of Disability Services is available at www.geneseo.edu/dean_office/disability_services.

Well-Being Prioritizing well-being can support the achievement of academic goals and alleviate stress. Eating nutritious foods, getting enough sleep, exercising, avoiding drugs and alcohol, maintaining healthy relationships, and building in time to relax all help promote a healthy lifestyle and general well-being.

Concerns about academic performance, health situations, family health and wellness (including the loss of a loved one), interpersonal relationships and commitments, and other factors can contribute to stress. Students are strongly encouraged to communicate their needs to faculty and staff and seek support if they are experiencing unmanageable stress or are having difficulties with daily functioning. The Dean of Students (585-245-5706) can assist and provide direction to appropriate campus resources. For more information, see www.geneseo.edu/dean_students.

Mental Health As a student, you may experience a range of challenges that can impact your mental health and thus impact your learning; common examples include increased anxiety, shifts in mood, strained relationships, difficulties related to substance use, trouble concentrating, and lack of motivation, among many others. These experiences may reduce your ability to participate fully in daily activities and affect your academic performance. SUNY Geneseo offers free, confidential counseling for students at the Lauderdale Center for Student Health and Counseling, and seeking support for your mental health can be key to your success at college. You can learn more about the various mental health services available on campus at health.geneseo.edu.

Academic Integrity and Plagiarism Milne Library offers frequent workshops to help students understand how to paraphrase, quote, and cite outside sources properly. These sessions are meant to educate about the importance of using original ideas and language, and how to incorporate paraphrases and quotes into writing. The complete list of library workshops can be found at www.geneseo.edu/library/library-workshops.

Academic dishonesty includes cheating, knowingly providing false information, plagiarizing, and any other form of academic misrepresentation. College policies and procedures regarding academic dishonesty are available at www.geneseo.edu/handbook/academic-dishonesty-policy.

Tentative Schedule of Topics (subject to change):

Jan 23 Introduction, description of course assignments and requirements
Types of scientific articles and where to find them

Assignments for next week:

- **Assignment 1:** Read Assigned Paper and answer discussion questions
 - Decide on a presentation topic
-

Jan 30

Assignment 1 due.

Discussion of paper & the peer review process
Selection of dates both for group and individual presentations

Assignments for next week:

- Read paper #2
 - Assignment 2: Find at least three articles relating to your potential paper/presentation topic
-

Feb 06

Assignment 2 due.

Discussion of paper #2

Assignments for next week:

- Read paper #3 for workshop
 - Assignment 3: Choose a topic for your paper/presentation and formulate a hypothesis
-

Feb 13

Assignment 3 due.

Workshop: How to properly read a journal article.

Assignments for next week:

- Make a power point presentation on paper #3 bring it to class
-

Feb 20

Assignment 4 due.

Workshop: How to effectively present/discuss a journal article.

Assignments for next week:

- Turn in first draft of paper next week, for peer review
 - Read paper for next week and answer discussion questions. Also pick the most important figure from the paper and explain your rationale.
 - Group #1 email me a copy of your chosen paper and discussion questions by Feb. 24th.
-

Feb 27

Assignment 5 due.

Group Paper Presentation #1

Draft #1 due, for peer review

Assignments for next week:

- Read paper for next week and answer discussion questions. Also pick the most important figure from the paper and explain your rationale.
 - Group #2 email me a copy of your chosen paper and discussion questions by March 3rd.
-

Mar 06

Assignment 6 due.

Group Paper Presentation #2

Assignments for next week:

- Comments back to peers on draft 1
- Read paper for next week and answer discussion questions. Also pick the most important figure from the paper and explain your rationale.
- Group #3 email me a copy of your chosen paper and discussion questions by March 10th.

Mar 13 **Assignment 7 due.**
Group Paper Presentation #3
Turn in comments/peer review on draft 1

Assignments for next week:

- Read paper for next week and answer discussion questions. Also pick the most important figure from the paper and explain your rationale.
- Group #4 email me a copy of your chosen paper and discussion questions by March 24th.

Mar 18-22 **Spring Break, no class**

Mar 27 Group Paper Presentation #4

Assignments for next week:

- Read paper for next week and answer discussion questions. Also pick the most important figure from the paper and explain your rationale.
- Turn in second draft of paper next week, for peer review

April 3 Workshop: Making and giving an effective presentation
Draft #2 due

April 10 Student presentation #1 and #2

April 17 **GREAT DAY**

April 24 Student presentation #3 and #4

May 1 Student presentation #5 and #6

May 8 Student presentation #7 and #8
Final Draft of paper due in class

May 14 **Final Exam 8:00-10:30AM**