



## Biochemistry 100 (Sections 101 and 102): Biochemistry Freshman Seminar

### **COURSE INFORMATION:**

**Course Credits:** 1

**Course Designations and Attributes:** None

**Course Description:** The Freshman Biochemistry Seminar will introduce freshmen to the discipline of biochemistry, to the UW Biochemistry Department, to some of the research projects the faculty are pursuing, to the University, and to the career options open to an individual with a biochemistry undergraduate degree.

**Requisites:** None

**Meeting Time and Location:** Thursdays, 9:55 am – 10:45 am,

**Section 101:** Room 2131, Biochemistry Building, 420 Henry Mall,

**Section 102:** Room 175, Biochemistry Laboratories Building, 433 Babcock Drive

**Instructional Modality:** In-person

**Instructor Contact Information:** (Office hours: by appointment):

Section 101: Dr. Erica Shu, Teaching Faculty I

2139A Biochemistry, 420 Henry Mall, [xshu32@wisc.edu](mailto:xshu32@wisc.edu)

Section 102: Dr. Mario Pennella, Teaching Faculty III

1142E Biochemistry, 420 Henry Mall, [mpennella@wisc.edu](mailto:mpennella@wisc.edu)

**Course Learning Outcomes:** By the end of the semester, students should:

1. Determine whether biochemistry is a major they want to pursue and defend that decision based on knowledge of the biochemistry major at UW-Madison.
2. Establish connections within the biochemistry department community including interacting with faculty.
3. Discuss the career opportunities available to individuals with biochemistry and/or life science backgrounds.
4. Identify resources available at the university that will support success at UW-Madison.
5. Describe the format and content of a scientific paper.

**Credit Hour Definition:** This class meets one 50-minute class period each week over the semester and carries the expectation that students will work on course learning activities for about 2 hours out of the classroom for every class period. Additional information about meeting times and expectations for student work are included below.

### **Regular and Substantive Student-Instructor Interaction**

Each unit instructor will be available for direct interaction 2-3 hours each week. This includes during scheduled class times and office hours (email for appointments).

## **INSTRUCTOR TO STUDENT COMMUNICATION:**

### **Grading:**

<b>Grade</b>	<b>Points</b>
A	90 – 100
AB	85 – 89
B	80 – 84
BC	75 – 79
C	70 – 74
D	65-69
F	Below 65

### **Course Assignments:**

*10 points – Attendance and Class Participation* – You are expected to attend all class meetings and actively participate in class. If you are ill, please notify a member of the teaching team prior to the start of class. You are responsible for submitting all assignments on time. If you are absent on the day of an in-class assignment, without prior arrangements, you will not receive credit for the activity.

*5 points – Life Science Major Group Project* – You will work with a group of students who are all interested in learning more about a life science major. You will answer a series of questions about this major and compare it to biochemistry. The project can be found on Canvas.

*10 points – Choice Assignments (1 reflection, 1 resume, each 5 points)* – You will complete a short reflection on a learning experience of your choice. You will prepare a resume. See Choice Assignment Guidelines on Canvas for options, writing prompts and guidelines.

*10 points – Biochemistry Problem Set* – You will complete a set of problems related to the lecture(s) from previous class period(s).

*20 points – Research Paper Questions (2 question sets, each 10 points)* – You will answer short questions regarding the assigned peer-reviewed research paper. See Canvas for the questions.

*10 points – Prepare an Integrated Four-Year Plan* - You will complete a tentative four-year plan of courses for your intended major. Out-of-classroom learning experiences will be integrated into your plan. See Guidelines, including examples, on Canvas.

*10 points – Research Experience Assignment (2 assignments, each 5 points)* – You will complete two assignments related to an in-class research experience. The first assignment will be to prepare for the research experience, and the second will be to analyze your results.

*25 points – Final Paper on Faculty Research* – With a group of students, you will interview a biochemistry faculty member about their research and their career. In addition, you will read scientific literature about the faculty member's research area. Based upon the information from the interview and the literature you will write a 3-page (double spaced) paper about the faculty member and his/her research program. Although you will conduct the interview as a group, your paper will be written individually. Guidelines and grading rubric can be found on Canvas. Five points of the total 25 are assigned for peer review of the faculty interview paper. You will review one of your classmate's papers and provide thorough feedback to help improve your classmate's interview paper. This review will happen digitally via the course website.

Course Schedule: **Click on links for more information about that Fair**  
**Combined sections meet in room 2131 that week**

Week	Class	Topic	Assignment Due	Links to Events/Notes
Sep 7	1	Course overview	Entrance Survey Due Sep 7	
Sep 14	2	Biochemistry 501/551 Dr. Pennella/ Dr. Shu		<a href="#">STEM Career Fair Sep 11-14</a> <a href="#">Student Org Fair Sep 12&amp;13</a> <b>Combined sections</b>
Sep 21	3	CALS Study Abroad and Student Services		<a href="#">Public Service Fair Sep 18</a> <a href="#">All-Campus Career &amp; Internship Fair Sep 20</a> <b>Combined sections</b>
Sep 28	4	In-class Biochemistry Problem Set <i>and</i> Life Science Majors	Choice Assignment 1 - resume	<a href="#">Food and Agricultural Student-Employer Connector Sep 27</a> <a href="#">Technology, Data &amp; Analytics Career Fair Sep 28</a>
Oct 5	5	Faculty Interview Prep	Majors Assignment Part 1 - 10/04 Part 2 - 10/05	<a href="#">Biotechnology Student- Employer Connector Oct 3</a> <b>Combined sections</b>
Oct 12	6	Faculty Interview	4-Year Plan	<a href="#">Equity &amp; Inclusion Career &amp; Internship Fair Oct 11</a>
Oct 19	7	Paper Discussion 1	Paper Questions 1	
Oct 26	8	Paper Discussion 2	Paper Questions 2	
Nov 2	9	Guest Faculty Talk Prof. Vatsan Raman	Choice Assignment 2 - reflection	
Nov 9	10	Research Experience 1	Pre-lab questions - quiz	Section 101 in room 2118 Section 102 in room 2144
Nov 16	11	Research Experience 2	First Draft - Faculty Interview Paper	Section 101 in room 2118 Section 102 in room 2144
Nov 23		No Class Thanksgiving break		
Nov 30	12	Pre-Health Guest Panel	Peer Review Research Assignment 2	<b>Combined sections</b>
Dec 7	13	Biochem Careers Guest Panel	Final Draft Due – Faculty Interview Paper	Zoom Online

## **ACADEMIC POLICIES AND STATEMENTS:**

**Course Accessibility:** The teaching team strives to provide everyone the opportunity to learn biochemistry. Please let Dr. Mario Pennella ([mpennella@wisc.edu](mailto:mpennella@wisc.edu)) or Dr. Erica Shu ([xshu32@wisc.edu](mailto:xshu32@wisc.edu)) know if you have additional learning considerations relating to the curriculum, instruction, or assessment of this course that will enable you to engage in the course more fully. We will keep any information you share with us confidential. *If you are a student requesting accommodations through the McBurney Center, see statement below and please contact the course coordinator to discuss your accommodations.*

**Teaching & Learning Data Transparency Statement:** The privacy and security of faculty, staff and students' personal information is a top priority for UW-Madison. The university carefully evaluates and vets all campus-supported digital tools used to support teaching and learning, to help support success through [learning analytics](#), and to enable proctoring capabilities. View the university's full [teaching and learning data transparency statement](#).

### **Privacy of Student Records & the Use of Audio Recorded Lectures Statement:**

View [more information about FERPA](#).

Lecture materials and recordings for this course are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record lectures without permission unless you are considered by the university to be a qualified student with a disability who has an approved accommodation that includes recording. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities, with the exception of sharing copies of your personal notes as a notetaker through the McBurney Disability Resource Center. Students are otherwise prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

### **Campus Resources for Academic Success:**

- [University Health Services](#)
- [Undergraduate Academic Advising and Career Services](#)
- [Office of the Registrar](#)
- [Office of Student Financial Aid](#)
- [Dean of Students Office](#)
- [Graduate Student Services](#)

### **Course Evaluations:**

Students will be provided with an opportunity to evaluate this course and your learning experience. We strongly encourage you to participate in the course evaluation.

**Digital Course Evaluation (AEFIS):**

UW-Madison now uses an online course evaluation survey tool, [AEFIS](#). In most instances, you will receive an official email two weeks prior to the end of the semester when your course evaluation is available. You will receive a link to log into the course evaluation with your NetID where you can complete the evaluation and submit it, anonymously. Your participation is an integral component of this course, and your feedback is important. I strongly encourage you to participate in the course evaluation.

**STUDENTS' RULES, [Rights & Responsibilities](#)**

**Diversity and Inclusion Statement:** [Diversity](#) is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

**Academic and Integrity Statement:** By virtue of enrollment, each student agrees to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. Examples of disciplinary [sanctions](#) include, but are not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

**Accommodations for Students with Disabilities:** The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy ([UW-855](#)) require the university to provide reasonable accommodations to students with disabilities to access and participate in its academic programs and educational services. Faculty and students share responsibility in the accommodation process. Students are expected to inform faculty of their need for instructional accommodations during the beginning of the semester, or as soon as possible after being approved for accommodations. Faculty will work either directly with the student or in coordination with the McBurney Center to provide reasonable instructional and course-related accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. (See: [McBurney Disability Resource Center](#))

**[Academic Calendar & Religious Observances](#)**