

# Biochemistry II (CHEM 318)

Spring 2020

Instructor: Kelli M. Slunt  
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Office Hours: 11:00 am – 11:50 am M, W (Jepson 437) 9:00 am – 10:00 am W (Jepson 437)  
10:00 am – 11:00 am W, F (Jepson 437)  
and by appointment through EAB (Guide or Campus)  
<https://umw.campus.eab.com/>

Office hours are subject to change – when possible, changes will be announced in advance.

Lecture 1:00 – 1:50 pm MWF, Jepson 451

- Course Materials (required)
- David L. Nelson and Michael M. Cox, *Lehninger Principles of Biochemistry*, Worth Publishing, Seventh Edition, 2017.
  - access to Canvas – lecture materials will be posted on Canvas  
it is expected that you check Canvas and your umw email regularly
  - smart phone, computer or tablet connected to the internet with the Socrative app or website – you will be required to access the app or website periodically for inclass exercises
  - non-programmable scientific calculator
- (highly recommended)
- Mary Osgood and Karen Ocoor, *The Absolute, Ultimate Guide to Lehninger Principles of Biochemistry*, Seventh Edition, Study Guide and Solutions Manual
  - money for printing on your Eagle One card or access to a printer – you may want to print lecture materials and assignments

## Course Description

This yearlong course in biochemistry is designed to provide an understanding about the molecular and mechanistic characteristics of biological systems. Last semester the course focused on the structures of proteins, sugars, nucleic acids, and lipids and how these structures affect the functions of these essential molecules. This semester, the course will examine the metabolic pathways and regulatory processes occurring in biological systems.

After completing this course, a student should

- Demonstrate an understanding of metabolic pathways occurring in biological systems
- Be able to explain the thermodynamic principles related to metabolic reactions
- Gain an understanding of the regulation of cellular pathways and reactions

## Grading

The grade in the course will be based on the number of points accrued throughout the term.

Grade Component	Points
Examinations (3, 175 points each)	525
Quizzes (4, variable 60-95 points each)	275
Cumulative Final Examination – ACS Biochemistry yearlong final	200
Total possible points for course	1000

The tentative dates for the quizzes and exams are given on the schedule. No cellular phones or other personal electronic devices (other than a non-programmable calculator) will be permitted during a quiz or exam. Quizzes will occur in the first 20 minutes of class on the assigned date, except for quiz 4, which is a take-home quiz and will be due at 1 pm on the indicated date.

The final grade in the course will be calculated out of 1000 points and will be based on the following point scale:

Points accrued	Letter grade	Points accrued	Letter grade
≥ 930 points	A	769-730 points	C
929-900 points	A-	729-700 points	C-
899-870 points	B+	699-670 points	D+
869-830 points	B	669-600 points	D
829-800 points	B-	≤ 599 points	F
799-770 points	C+		

A mid-semester report of unsatisfactory (U) will be reported if you have a C or below in the course thus far.

Any student who fails to complete the final examination in the course will automatically receive an "F" in the course.

The departmental policy for incomplete grades can be found on the chemistry department website, <http://cas.umw.edu/chemistry/academic-procedures/>.

### **Class Participation Points**

Class attendance is important to your success in this course. The lectures will be interactive and a lot of material is covered each day. Lateness to the lecture is distracting to others and students should attempt to be on time. You are responsible for all materials covered in class during your absence. Periodically during the lecture period, questions will be presented using the socrative app (<https://www.socrative.com/>). Each question will be worth 0.25 points and any points gained by correct answers will be added to the point total for the course. Any class participation exercises completed during an absence are not eligible for make-up unless you have approved documentation for your absence. (See make-up policy.)

### **Make-Up Policy**

Make-up class participation, quizzes, and exams will only be arranged for exceedingly unavoidable circumstances that are documented (death in family, hospitalization, graduate school, professional school, or job interview, athletic competition, disability related absence accommodation, etc.). For obligations that are not of an emergent nature, a make-up quiz/exam must be scheduled at least one week in advance of the scheduled quiz or exam. In the case of emergency, you need to notify Dr. Slunt as soon as possible about the emergency. It is at the discretion of the instructor (with consultation of the chair) to schedule or allow any make-ups. Absences without appropriate documentation do not qualify and will result in a zero for the class participation, quiz or exam. Unless otherwise noted in the make-up arrangements, the make-up must occur within one to two business days of the missed class

period. If the make-up is scheduled after 1 pm on the lecture day on which the corrected assessments are returned to the class, the student will complete an alternative assessment.

### **Quiz and Exam Recaps**

Quizzes and Exams will be reviewed and returned to students with a check mark for 100% correct or an x indicating some part of the question is incorrect or incomplete. If a student correctly answers 100% of the questions correctly, the assessment will be returned with a grade and the student will not complete the recap assignment.

It has been my experience that many students simply look at the final grade on the assignment and do not consider the written comments or critically think about their performance. A recent study showed that students who receive returned work with feedback rather than a grade ultimately performed better than students who receive returned assessments with grades.

Details on the recap assignment are posted on *Canvas*. Students can earn points added to the final assignment grade by reviewing their answers, correcting the work, and identifying skills that need to be honed for the next assignment. The score on the recap questions will be averaged with the score on the original assessment and the average score will serve as the final score for the assessment. Recaps must be completed individually and pledged as your own work.

All assessments are scheduled on a Monday. As long as there are no extenuating circumstances impacting the faculty member or weather delays, the corrected assessments will be returned to the students on Wednesday in class and the recaps will be due on the Friday following the return of the corrected assessments.

### **Cumulative Final Examination**

The final examination in this course is a cumulative year-long standardized final examination developed by the American Chemical Society for biochemistry that will assess your knowledge about the biochemistry topics covered in the two-part course sequence. Currently, no official study guide for the exam exists. A brief overview of the major topics of biochemistry will be provided on Canvas as a review for the final exam.

**NOTE: A student who has not taken a required final examination has not completed the course requirements and therefore fails the course.** Please see the academic policies section of the academic catalog for the procedure for rescheduling a final exam.

### **Canvas and Socrative**

You must have access to Canvas and Socrative. I will post annotated lecture notes, assignments, copies of old quizzes and examinations, course materials, and announcements on Canvas. Students must make sure to check Canvas daily for updates on the course. Socrative will be used for the daily in-class participation exercises. Students need to bring an electronic device to class to submit their answers through the Socrative app.

### **Family Educational Rights and Privacy Act (FERPA)**

FERPA is a Federal law that protects student educational records. To retain confidentiality, the grade on assignments will be placed on a back page. If you do not feel comfortable having

your papers returned during class, please indicate to me in writing you would like to retrieve your papers during office hours.

### **Honor System Statement**

In accordance with the University's Honor Code, all work submitted for grading must be your own and be pledged as such by writing at the end of the work, "I hereby declare upon my word of honor that I have neither given nor received any unauthorized help on this work. (your signature)" It is your duty as students and ours as faculty to uphold the Honor Code, which is described in detail in the [Guidebook & Constitution](#). Suspected violations of the Honor Code will be addressed according to the policy established by the Honor Council.

### **Disability Resources Statement**

Students who require or feel they may require accommodations due to a disability should visit the Office of Disability Resources online (<http://academics.umw.edu/disability/>) for information about available resources. You will need to request appropriate accommodations through this office as soon as possible and then make an appointment to see your instructor to discuss your approved accommodation needs (you will need the letter issued you by the office at this meeting). If you have allergies to any chemicals or other emergency medical information, or have any other special needs, please notify your instructor ASAP.

### **Title IX Compliance Statement**

University of Mary Washington faculty are committed to supporting students and upholding the University's *Policy on Sexual and Gender Based Harassment and Other Forms of Interpersonal Violence*. Under Title IX and this Policy, discrimination based upon sex or gender is prohibited. If you experience an incident of sex or gender based discrimination, we encourage you to report it. ***While you may talk to your instructor, understand that as a "Responsible Employee" of the University, they must report to UMW's Title IX Coordinator what you share.*** If you wish to speak to someone confidentially, please contact the below confidential resources. They can connect you with support services and help you explore your options. You may also seek assistance from UMW's Title IX Coordinator. Please visit <http://diversity.umw.edu/title-ix/> to view UMW's *Policy on Sexual and Gender Based Harassment and Other Forms of Interpersonal Violence* and to find further information on support and resources.

### **Classroom Recording Statement**

Classroom activities in this course may be recorded by students enrolled in the course for the personal, educational use of that student or for all students presently enrolled in the class only, and may not be further copied, distributed, published or otherwise used for any other purpose without the express written consent of the course instructor. All students are advised that classroom activities may be taped by students for this purpose. Distribution or sale of class recordings is prohibited without the written permission of the instructor and other students who are recorded. **Distribution without permission is a violation of copyright law.** This policy is consistent with UMW's [Policy on Recording Class and Distribution of Course Materials](#).

## Tentative Schedule

Monday	Wednesday	Friday
1/13 course intro., Chapter 10	1/15 Chapter 10	1/17 Chapter 11 <i>Last day to add classes</i>
1/20 No Classes – MLK, Jr. Day	1/22 Chapter 11	1/24 Chapter 11
1/27 Chapter 11, <b>Quiz 1</b>	1/29 Chapter 12	1/31 Chapter 12 <i>Last day to drop class without a grade of W</i>
2/3 Chapter 12	2/5 Chapter 13	2/7 Chapter 13
2/10 <b>Exam 1</b>	2/12 Chapter 13	2/14 Chapter 13
2/17 Chapter 14	2/19 Chapter 14	2/21 Chapter 14
2/24 Chapter 14, <b>Quiz 2</b>	2/26 Chapter 14	2/28 Chapter 15
3/2 <i>Spring Break</i>	3/4 <i>Spring Break</i>	3/6 <i>Spring Break</i>
3/9 Chapter 15	3/11 Chapter 15	3/13 Chapter 15
3/16 Chapter 16, <b>Quiz 3</b>	3/18 Chapter 16	3/20 Chapter 16 <i>Last day to change to/from pass/fail or withdraw from class– Note - cannot take major/minor requirements pass/fail</i>
3/23 <b>Exam 2</b>	3/25 Chapter 16	3/27 Chapter 17
3/30 Chapter 17	4/1 Chapter 18	4/3 Chapter 18
4/6 Chapters 18	4/8 Chapter 19	4/10 Chapter 19
4/13 Chapter 19, <b>Quiz 4</b> (take-home due at 1 pm)	4/15 Chapters 19 and 21	4/17 Chapter 21
4/20 <b>Exam 3</b>	4/22 Chapter 21	4/24 No class (Research and Creativity Day) <i>Last day to withdraw from University</i>
4/27 <i>Final exams</i>	4/29 <i>Final exams</i> <b>Cumulative Final Exam for CHEM 318 - noon</b>	5/1 <i>Final exams</i>

