

Chemistry 341 B and C – Biochemistry I
Course Syllabus
Fall 2017

Instructor:

Dr. Alice Suroviec
asuroviec@berry.edu
Office: Science Building 304A
Phone: (706) 238-5869

Office Hours:

Tuesday 8:30–10:30am; 1:30–4:30pm
Thursday 8:30–10:30am; 1:30–4:30pm

Lecture: Section B MWF 10:00 – 10:50am, Science Building Room 119.
Section C MWF 11:00 – 11:50am, Science Building Room 119.

Course Description: Introduction to the chemistry of life, providing a general overview of biomolecular structure and function with emphasis on proteins/enzymes, lipids and membranes and an introduction to metabolism. This course is an introduction to biochemistry, a study of the chemistry that drives biological systems. Prerequisite: Chemistry 222. The course is 3 semester hour credit (3-0-3).

Purpose of the Course: The goal is for the student to have a thorough understanding of the topics in biochemistry presented in this course. Biochemistry is a science that ties together many courses that students may have already taken, such as general chemistry, analytical chemistry, organic chemistry, physical chemistry, cell biology and molecular biology. Successful completion of this course will prepare the student for future biochemistry courses as well as entry into post-baccalaureate programs such as graduate school, medical school and veterinary school.

Student Learning Outcomes: The student will understand basic biochemistry, develop scientific writing skills, critical thinking and problem-solving skills through lecture and assignments outside of class. Although some memorization will be required, a special emphasis will be placed upon demonstration of principles learned and application to problems in biochemistry.

Assessment Measures: Upon satisfactory completion of this course, the student will demonstrate competency in the biochemical sciences by their performance on quizzes, laboratory reports, evaluated group work and exams. It is expected that upon completing their course with a C or higher you will be prepared similar to other biochemical majors from accredited colleges/universities.

Method of Instruction: Biochemistry I will be a lecture based course (using Power Point, white board and handouts) with a textbook that the majority of the material comes from. Students are expected to come to class have read the material assigned the previous class that will be covered that day's lecture. Questions in class as well as visits to office hours are encouraged.

Requirements:

Text: *Biochemistry* by Miesfeld and McEvoy, 1st edition, Norton, 2017.

Online Homework: Smartworks5 <https://digital.wwnorton.com/biochem>

Calculator: A scientific calculator is required. I recommend a Texas Instruments model TI-83 or higher. **No sharing of calculators will be allowed on exams or quizzes.**

Course Webpage: The course webpage can be found at www.facultyweb.berry.edu/asuroviec
The page contains links to the course syllabus, PowerPoint slides, grade books as well as other pertinent information. Every effort is made to keep this page as up to date as possible

Cell phones: Even though cell phones now function as calculators, cell phones are NOT allowed during quizzes or exams. Additionally, cell phones need to be silenced during lecture for the consideration of those around you as well as myself.

Attendance Policy: It is expected that class attendance will be 100% and that full attention will be given to any subject while present in class. The student will be held responsible for the material presented and any assignments made during a class session s/he was not able to attend. While attendance is not part of the grade in this course, it is necessary to do well. A student who has been absent continuously for one week will be reported to the Registrar.

Grades: The course grade will be based on the total points accumulated from the 3 regular exams, the final exam, quizzes, homework assignments and the general chemistry lab. Each of these are weighted as follows:

Exams 1-3	45% (15% Each)
Final Exam	20%
Quizzes	15%
Homework	15%
<u>Project</u>	<u>5%</u>
TOTAL	100%

Total points accumulated and weighted by the table above will determine final grades. Students obtaining 93–100 points total for the course (total points [rounded to the nearest whole number in the standard mathematically correct manner] as above for exams, final exam, problem sets and lab grade), will be afforded an "A" as a final grade. Students obtaining 90–92 points total will be afforded an "A-" as a final grade. Students obtaining 87–89 points total will be afforded a "B+" as a final grade. Students obtaining 83–86 points total will be afforded a "B" as a final grade. Students obtaining 80–82 points total will be afforded a "B-" as a final grade. Students obtaining 77–79 points total will be afforded a "C+" as a final grade. Students obtaining 73–76 points total will be afforded a "C" as a final grade. Students obtaining 70–72 points total will be afforded a "C-" as a final grade. Students obtaining 67–69 points total will be afforded a "D+" as a final grade. Students obtaining 60–66 points total will be afforded a "D" as a final grade. Students obtaining 59 points total or less will be afforded an "F" as a final grade.

Examinations: There will be three regular examinations plus a final exam. The dates for the three regular exams are: **Wednesday, September 20th, Wednesday, October 25th and Wednesday, November 15th**. These dates are firm, and exams will be given during class time. Make-up exams will only be allowed for well-documented illnesses or absences approved in advance. Excuses must be presented in writing. Exams will not be moved so plan ahead.

Final examination: A cumulative final will be given on Section B: **December 4th at 11:00am**; Section C: **December 5th at 11:00am**.

Quizzes: At the *end* of some class periods, a short 10-point quiz will be given, except on exam days, and the days following mid-semester break and Thanksgiving break. These quizzes will be closely related to the problems assigned as homework.

I will allow you to take the quiz early, with my approval, but **NO** late quizzes will be given. At the end of the semester the lowest quiz score will be dropped and the remainder of the quiz scores used to compute the quiz grade. The thrown out quiz are intended to make-up for illnesses, emergencies and/or absences due to scheduled Berry events.

Homework: There is assigned homework and reading for each chapter.

Reading: The reading assignment will be based on the material to be covered in the next lecture.

Problem Sets: Problems will be assigned daily from the material that is being covered in class. These problems will be graded on the web with the website Smartworks (<https://digital.wwnorton.com/biochem>). These problems will be worth varying points and you will have multiple chances to enter the correct answer to receive full credit. Problems can be attempted late, but with a 10% penalty per day. Quiz and test problems will be closely related to these questions so it is in your best interest to do them and come to class with questions about them.

Grading of homework: You are welcome and encouraged to work on the all the homework problems together. However, each of you must still submit your own work to receive credit.

Seminar attendance: There are several seminars given throughout the semester, these will be seminars on current topics in natural science. It is required for Chemistry 341, that each student attends one seminar. Attending one seminar is worth 1 quiz grade (10 points). Therefore, it is in your best interest that your attendance is properly recorded. The attendance is recorded at the seminar.

Project: You will be asked to complete a project and turn in the report as a word document. The assignment available for download on VikingWeb. Further instructions will be given at that time. The project will be due **December 1st**.

Extra Credit: If you attend more than one seminar in the College of Mathematical and Natural Sciences, you will receive extra credit points. For every two (2) seminars you attend beyond the one required (i.e. number 3, 5) your lowest quiz score will be dropped. The maximum number of quizzes that may be dropped is 2. You will need to sign in at the end of the seminar to have your attendance recorded. **THIS IS THE ONLY EXTRA CREDIT THAT IS AVAILABLE IN THIS COURSE.**

FERPA: Berry College's statement of compliance with the 1974 Federal Family Educational Rights and Privacy Act (FERPA or the Buckley Amendment) states: "Grades should not be distributed or posted in any fashion that permits identification of the student by anyone other than the student." Since many quizzes are group quizzes, those will be handed back to the group as a whole. Exams are taken as an individual, so I will always hand these back personally.

Additional Accommodations: Students with disabilities who believe that they may need accommodations in this course are encouraged to contact the Academic Support Center in Evans 106 (ext. 4080) as soon as possible to ensure that such accommodations are implemented in a timely fashion.

Academic Integrity: Each student is expected to adhere to the policies outlined in the college's academic handbook. Cheating of any kind will not be tolerated. As in all of my classes, students will be asked to sign an integrity pledge on each quiz/exam. The pledge reads as follows:

"I affirm that I have neither committed nor witnessed a violation
of academic integrity in the completion of this quiz/examination."

Any student found to have violated academic integrity will be subject to the following:

First Offense: No credit for the particular quiz/exam and a report filed to the Academic Dean's office.

Second Offense: Removal from the course, automatic failure in the course and a report filed to the Academic Dean's office.

Tentative Course Schedule

Month	Date	Material to be Covered	Assignment Due
August	21	Intro/Review (CH 1) Physical Biochemistry (CH 2)	Chapter 1 HW/ Quiz
	23		
	25		
August	28	Protein Structure (CH 4)	Chapter 2 HW Quiz
September	30		
	1		
September	4	Labor Day – no class	Chapter 4 HW Quiz
	6	Protein function (CH 6)	
	8		
September	11		Quiz
	13		
	15		
September	18	Exam I Enzyme Mechanisms (CH 7)	Chapter 6 HW
	20		
	22		
September	25		Quiz
	27		
	29		
October	2		Quiz
	4		
	6		
October	9	Fall Break	Chapter 7 HW Quiz
	11	Carbohydrates (CH 9)	
	13		
October	16		Quiz
	18		
	20		
October	23	Exam II Citric Acid Cycle (CH 10)	Chapter 9 HW
	25		
	27		
October November	30 1 3		Quiz
November	6		
	8		
	10		
November	13	Exam III Oxidative Phosphorylation (CH 11)	Chapter 10 HW
	15		
	17		
November	20	Thanksgiving Break Thanksgiving Break	
	22		
	24		
November December	27 29	Intro to DNA and RNA (CH 3)	Chapter 11 HW Quiz/Project Due
	1		
December	4	10 am class: Final Exam	Chapter 3 HW
	5	11 am class: Final Exam	