

Lectures: M-W-F 9:10 to 10:00 ----- Breakout Sessions: Th 5:30 to 6:45

Instructors:

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Office Hours by appointment

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Objective: The objective of this course is to introduce you to the chemistry of life and provide a basis for further studies in biological sciences. The course material includes the structure and function of biological molecules, enzymology, metabolism, and bioenergetics. The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Prerequisites: (CHEM 2211 or CHEM 2311H or CHEM 2411) and (CHEM 2211L or CHEM 2311L or CHEM 2411L or BIOL 2107H).

Course Format: The traditional lecture-based format will be used to present class materials. Lectures will also include student polling via TopHat using questions from previous Exams to acquaint students with the style and content of exam questions. A weekly Breakout session will provide a review of the previous week's material and Exam review.

Textbook: We will follow *Biochemistry a Short Course* by Tymoczko, Berg and Stryer (1st, 2nd, 3rd, or 4th edition).

We suggest that instead of buying a book, students purchase **Achieve** student companion from Macmillan Solutions ([ISBN 9781319495084](https://www.macmillan.com/achievetools)) which comes with a searchable e-book. Achieve also contains several learning aids, such as the [LearningCurve](#) (a self-paced quiz which can provide up to 1% of extra credit to your exam grades) as well as other review materials. Please see the eLC for more information.

In-class polling: We will be using the **Top Hat Student** response system for in-class polling during lectures and Breakout sessions. Top Hat will provide students with sample test questions and review materials as well as providing up to 1% extra credit to your exam scores. Please see the eLC for more information.

Class participation: We will use **Packback** to assess class participation. Class participation is not extra credit and will account for 2% of your final grade. Please see the eLC for more information.

Attendance: Attendance is mandatory. Exams questions will be taken from the information covered during the lectures and breakout sessions, as well as the assigned reading material. It is very important that you attend each lecture and take good notes. Lectures will be easier for you to understand if the section we are discussing is read prior to class. You will be responsible for all announcements made in class and the eLC. Arrive on time and avoid leaving early. *In the event of weather-related cancellation of classes, the schedule will pick up the sequence of

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lectures as classes resume. If we have covered all material for an exam, the exam will be given on the first day back.

Academic Honesty: All academic work must meet the standards contained in “A Culture of Honesty.” Students are responsible for informing themselves about those standards before performing any academic work. The policy can be found at <https://honesty.uga.edu/Academic-Honesty-Policy>. Academic dishonesty will not be tolerated, and minimum sanctions will be an F in the course and a transcript notation. An example of a violation of the UGA Academic Honesty Policy would be to copy the work of others during an exam.

Office Hours: Office Hours are by appointment only. Zoom meetings can be set up by emailing us at jprose@uga.edu or przybyla@uga.edu to determine a convenient time to meet.

Website and eLearning Commons: We will be using the UGA eLearning Commons throughout the semester. The syllabus, lecture notes, questions, course announcements and calendar dates will be posted on the eLearning course page. To get to the course page go to <http://www.elc.uga.edu>. Check the site often for important news.

Exams: There will be FOUR, 50-minute exams given throughout the semester and an optional Final Exam. Please see the course schedule below for dates.

Optional Final: The Optional Final Exam is structured in four sections, with each section covering the material presented in one of the four Exams. Students wishing to improve their score for ONE of their Exams can take the corresponding Final Exam section (1 – 4) corresponding to that Exam. The Final Exam score for that section will then replace the corresponding Exam grade (only in cases where the Final Exam grade is higher).

Makeup Exams: Students may make up a missed Exam (one only) by providing a valid excuse and documentation and taking the Final Exam section corresponding to the Exam missed. The Final Exam score for that section will then replace the missed Exam grade.

Regrades: Regrades are a courtesy extended by the instructors and should be considered as a privilege, not a right. If you believe there has been a grading error on your exam, you must put in writing the question/answer(s) you wish re-graded and clearly articulate the reason(s) you feel that additional credit should be given. You may give your exam paper and your written statement to the appropriate grader within seven (7) days of when the exam was returned. No grades will be changed after this date. Decisions made by the professor on re-grades are final.

Grades: Your grade will be based on the following:

Rose	2 Exams (100 points each)	200 points
Przybyla	2 Exams (100 points each)	200 points
Optional	Final Exam (100 points)	<u>Replaces</u> one Exam score
Class Participation	Up to 8 points	Added to your total points

Grades are determined by dividing the total points earned (including extra credit) by the total points possible (408).

Grading Scale: For an example, the Spring 2021 Grading Scale was as follows:

A 93 to 100	A- 90 to 92	
B+ 87 to 89	B 83 to 86	B- 80 to 82
C+ 77 to 79	C 65 to 76	
D 50 to 64	F below 50	

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Mental Health and Wellness Resources:

- If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu/>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://www.uhs.uga.edu/info/emergencies>).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.

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BCMB 3100 Lecture Schedule

Lectures will be in Room C127 on MWF beginning at 9:10 am
Breakout Sessions will be in Room C127 on Thursdays beginning at 5:30 pm

Rose Lectures					
L1	10-Jan	(M)	Chapter 2.	Water, Weak Bonds, Hydrophobic Effect #1	Rose
L2	12-Jan	(W)	Chapter 2.	Water, Weak Bonds, Hydrophobic Effect #2	Rose
BO1	13-Jan	(R)	Breakout	Welcome and Class Logistics	Rose
L3	14-Jan	(F)	Chapter 3.	Amino Acids, Primary Sequence #1	Rose
Holiday	17-Jan	(M)	No Class	Martin Luther King Jr Holiday	
L4	19-Jan	(W)	Chapter 3.	Amino Acids, Primary Sequence #2	Rose
BO2	20-Jan	(R)	Breakout	Review lectures 1 - 4	Rose
L5	21-Jan	(F)	Chapter 4.	Protein 3D Structure & Function #1	Rose
L6	24-Jan	(M)	Chapter 5.	Protein 3D Structure & Function #2	Rose
L7	26-Jan	(W)	Chapter 5.	Techniques in Protein Biochemistry	Rose
BO3	27-Jan	(R)	Breakout	Review Lectures 5 - 7	Rose
L8	28-Jan	(F)	Chapter 5.	Hemoglobin	Rose
L8	31-Jan	(M)	Chapter 9.	Biochemistry & Disease	Rose
L9	2-Feb	(W)	Chapter 9	Basic Concepts of Enzyme Action #1	Rose
BO4	3-Feb	(R)	Breakout	Review Lectures L1 – L8	
Exam 1	4-Feb	(F)	Exam	Exam 1 - Lectures 1 – 8	Rose
L11	7-Feb	(M)	Chapter 6.	Basic Concepts of Enzyme Action #2	Rose
L12	9-Feb	(F)	Chapter 7.	Kinetics and Regulation	Rose
BO5	10-Feb	(R)	Breakout	Review Lectures 9 -12	Rose
L13	11-Feb	(F)	Chapter 7.	Mechanisms and Inhibitors #1	
					Rose
L14	14-Feb	(M)	Chapter 7.	Mechanisms and Inhibitors #2	Rose
L15	16-Feb	(W)	Chapter 8.	Carbohydrates #1	Rose
BO6	17-Apr	(R)	Breakout	Lectures 13 -15	Rose
L16	18-Feb	(F)	Chapter 8.	Carbohydrates #2	
					Rose
L17	21-Feb	(M)	Chapter 10.	Lipids	Rose
L18	23-Feb	(W)	Chapter 10.	Membrane & Signaling	Rose
BO7	24-Feb	(R)	Breakout	Review Lectures 9 -18	Rose
Exam 2	25-Feb	(F)	Exam	Lectures 9 - 18	Rose

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Przybyla Lectures					
L21	28-Feb	(M)	Chapter 14	Digestion, uptake and storage of food	Przybyla
L22	2-Mar	(W)	Chapter 15.	Glucose uptake, storage, release	Przybyla
BO9	3-Mar	(R)			Przybyla
L23	4-Mar	(F)	Chapter 16.	Glycolysis	Przybyla
Break			No Class	Spring Break March 7 to March 11	Przybyla
L24	14-Mar	(M)	Chapter 18, 19.	Citric acid cycle	Przybyla
L25	16-Mar	(W)	Chapter 20, 21	The electron transport chain, ATP generation	Przybyla
BO10	17-Mar	(R)			Przybyla
L26	18-Mar	(F)	Chapter 22, 23.	Photosynthesis	Przybyla
L27	21-Mar	(M)	Chapter 27.	Energy generation from fat	Przybyla
L28	23-Mar	(W)	Chapter 17.	Gluconeogenesis	Przybyla
BO11	24-Mar	(R)			Przybyla
L29	25-Mar	(F)	Review	Lectures L21 – L28 Part 1	Przybyla
Deadline	25-Mar	(F)	Deadline	Withdrawal Deadline	Przybyla
L30	4-Apr	(M)	Chapter 27.	Energy generation from fat	Przybyla
L31	6-Apr	(W)	Chapter 17.	Gluconeogenesis	Przybyla
BO12	7-Apr	(R)			
L32	8-Apr	(F)	Review	Lectures L21 – L28 Part 1	Przybyla
L33	11-Apr	(M)	Review	Lectures L21 – L28 Part 2	Przybyla
Exam 3	13-Apr	(W)	Exam 3	Lectures L21 – L28	Przybyla
BO13	14-Apr	(R)			
L34	15-Apr	(F)	Chapter 33.	Nucleic acids and chromatin	Przybyla
L35	18-Apr	(M)	Chapter 34.	DNA replication	Przybyla
L36	20-Apr	(W)	Chapter 35.	DNA repair	Przybyla
BO14	21-Apr	(R)			
L35	22-Apr	(F)	Chapter 37.	Transcription #1	Przybyla
L36	25-Apr	(M)	Chapter 38.	Transcription #2	Przybyla
L37	27-Apr	(W)	Chapter 39.	The Genetic code	Przybyla
BO14	28-Apr	(R)			
L38	29-Apr	(F)	Chapter 40.	Protein synthesis #1	Przybyla
Exam 4	4-May	(M)	Exam 4	Lectures L31 – 38	Przybyla
Final Exam	1-May	(F)	Final Exam	Room C127 starts at 8:00 am	

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