

Instructor

Jeff Rudolf
Office: 302G Scott Family Hall (SFH)
Phone: 352.294.7221
E-mail: jrudolf@chem.ufl.edu, or Canvas email

Class Periods

Tuesdays and Thursdays, Periods 3–4 (9:35 am – 11:30 am)
Classroom: FLI 109

Office hours

Mondays 8:30 am – 10:00 am
Instructor office hours will be offered in SFH 302G

Course Objectives

This class aims to review fundamentals from general, organic, and physical chemistry that form the framework for understanding biochemical systems, introduce the students to concepts, tools, and techniques commonly found in chemical biology, and advance the students' abilities to comprehend and apply these concepts through primary chemical biology literature. Topics will include the chemistry, structures, functions, interactions, and techniques associated with DNA, RNA, proteins, glycans, polyketides, and terpenes. Students will also learn to analyze and interpret key concepts from primary literature and gain experience in oral and written scientific communication.

Optional Texts

There is no required textbook for this course. Primary instructional resources will be papers and reviews from the current literature. These materials will be provided online on the course e-Learning site (<http://elearning.ufl.edu>). Some lecture material and practice problems will be based on:

Introduction to Bioorganic Chemistry and Chemical Biology, Van Vranken, D. and Weiss, G.

Lehninger Principles of Biochemistry, Sixth or Seventh Edition, Nelson, D. L. and Cox, M. M.

Prerequisites

PhD Chemistry student or permission of the instructor.

Class Meetings

Class meets Tuesdays and Thursdays 9:35 am – 11:30 am in Flint 109. A tentative course schedule is available at the course e-Learning site.

Grading

The final course grade will be based upon two exams, topics assignments and presentation, and participation during class. All topic assignments must be uploaded to Canvas as PDFs. If using paper & pen, you are required to SCAN your documents and upload a single PDF. Photos will not be graded and given a grade of 0. If your handwriting is poor, you will be asked to type up written assignments. Failure to do so may result in a grade of 0 if your handwriting cannot be read. Blank or corrupt submissions will result in a grade of 0. Here is a breakdown of the approximate total points in the course (subject to change):

<u>Assignment</u>	<u>Points (100 total)</u>
Exams	60 (30 each)
Topic assignments	21 (5 each, except topic selection = 1)
Topic presentation	14
Participation	5

Letter grades will be assigned based on the approximate grade ranges (subject to change):

Letter Grade	Percentage Points
A	>85.0
A-	80–84.9
B	70–79.9
B-	65–69.9
C	55–64.9
C-	50–54.9
E	<50

For more information on current UF grading policies, see [here](#).

Assignments

Exams: There will be 2 in-class, closed-note exams. The two exams are tentatively scheduled for Sept. 24 and Oct. 31. Concepts covered on all exams will be cumulative, although they will emphasize the material presented after the previous exam. After each exam, grade distributions will be posted so that you will have a feel for your performance relative to others in the class as the semester progresses.

Topic Assignments: This component of the course is a multi-part assignment in preparation of your in-class topic presentation. The five assignments will be individually graded. See the course schedule or course e-Learning site for assignment details and due dates.

Topic Presentation: Student presentations will be scheduled during the final few class periods. See the course schedule or course e-Learning site for assignment details and due dates.

Participation: Participation will be graded throughout the semester. Your participation grade will be assessed based on your attentiveness during lectures and student presentations, and involvement during in-class activities, question sessions, and group discussions.

Make-Up Policy

Late submission of assignments will result in the deduction of points. The respective grade will be reduced by 30% if submitted late and within 24 hours of the deadline. Each subsequent day late will result in an additional 10% deduction. The instructor may waive the late penalty to a student who presents legitimate circumstances. There is no excuse for failing to communicate prior to the deadline.

Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found on UF's Attendance Policies website. If an exam or assignment will be missed due to active military duty, religious holy days, or official University activities, the student is required to provide documentation of such absences at least two weeks in advance. Assignments that are missed due to pre-excused absences will not be counted against the student in the final grade.

Grading Errors and Regrades

Mistakes happen and grading errors can be especially frustrating. I will do my best to make sure that you are always kept up to date with your performance in the course and post your grades in a timely

manner. It is your responsibility to make sure that your grade on Canvas reflects the scores you receive on assignments and bring it to my attention ASAP when you notice a discrepancy. If you feel that a grading error was made on a particular assignment you have one week from the date the grade was posted to Canvas to request a regrade. Regrades will include a rescore of the entire assignment and may result in a lower score. To request a regrade you must personally inform me of the request, including the question that you believe was graded incorrectly and why you think your answer is correct.

Student Responsibilities

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor, assistants, and to fellow students. Opinions, questions, and answers given by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

In response to the potential of an urgent COVID situation, the following policies are encouraged to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.

- Masks or other approved face coverings are voluntary and welcomed in class if a student prefers to wear one during class and within buildings. Regardless of vaccination status, mask usage is a responsible and vital way of preventing transmission of COVID. Faculty may also ask for mask usage in their offices during office hours or one-on-one meetings (with a provision for remote office hours or meetings as an alternative).
- Keep eating and drinking to a minimum.
- If you have not been vaccinated, please [consider](#) starting the process immediately. You can schedule a vaccination appointment at ONE.UF. If you are vaccinated but have not had a booster shot, please consider getting it. Please keep in mind that being vaccinated for COVID-19 is the best way to protect yourself and others from the potentially life-threatening effects of the virus. Your action in this regard may help ensure the health and safety of yourself, your fellow students, and the faculty and staff with whom you interact (and their families).
- If you are experiencing COVID [symptoms](#), STAY HOME! Please do not come to an in-person class. Call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 to be evaluated. You will not be penalized, and your classmates, assistants, and instructor will thank you for helping to keep them and their families safe. Excused absences are consistent with [university policies](#) in the undergraduate catalog and require appropriate documentation.

Privacy Statement

If any classes are on Zoom, students who participate with their camera and microphone engaged, or utilize a profile image, are agreeing to have their video, audio, and/or image recorded. If you are unwilling to consent to the recording of any of these, be sure to keep your camera off and do not use a profile image, and solely use the chat function. The chat will not be recorded or shared. Recording will not normally be made during breakout sessions.

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and

delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor (or any students/assistants on the recording) is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Academic Honesty

UF students are bound by The Honor Pledge, which states: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” On all work submitted for credit by students at UF, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The [Conduct Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions.

Proper and Ethical Use of ChatGPT and Other AI Programs

(this section was ironically written by ChatGPT and approved by Jeff)

In this course, you are encouraged to explore various tools, including AI programs like ChatGPT, to enhance your learning experience. However, it is crucial to use these tools responsibly and ethically. Here are the guidelines you must follow:

Supplementary Tool, Not a Replacement: AI programs should be used as supplementary tools to assist your understanding and learning. They should not be used to replace your own work or original thought. Ensure that you fully understand any content generated by AI and can explain it independently.

Attribution and Acknowledgment: If you use ChatGPT or any other AI program to help generate ideas, draft text, or answer questions, you must clearly indicate that AI was used. This includes citing the AI tool in your assignment or paper, similar to how you would cite any other source.

Originality of Work: All assignments and papers must be your original work. While AI can help with brainstorming or drafting, the final submission must reflect your understanding and effort. Plagiarism, including presenting AI-generated content as your own without proper acknowledgment, will not be tolerated and will result in disciplinary action.

Accuracy and Reliability: AI-generated responses may not always be accurate or up-to-date, particularly in a field as complex and evolving as Chemical Biology. Always verify information obtained from AI with reliable sources before including it in your work.

Ethical Considerations: Use AI ethically and responsibly. Do not use AI to create or propagate misinformation, engage in academic dishonesty, or violate the principles of academic integrity.

Consultation with Instructor: If you are unsure about how to properly use AI tools in your work, consult with me before proceeding. I am here to help you navigate these new technologies in a way that supports your learning and adheres to academic standards.

By adhering to these guidelines, you can leverage AI as a powerful learning tool while maintaining the integrity and originality of your work in this course.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is [available](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or [here](#). Summaries of course evaluation results are available [here](#).

Classroom Environment

We welcome all ethnicities, races, genders, sexual orientations, cultures, faiths, ages, disabilities, and identities with respect. Each student is unique and brings their individual perspectives to our classroom and program. We are committed to maintaining an environment where each student is welcomed, respected, and supported during their educational and scientific journey and in preparation to enter a diverse workforce.

Students with Disabilities

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester (i.e., the first week).

Health and Wellness

Your well-being is important to the University of Florida. The *U Matter, We Care* initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or someone you know is in distress, please contact umatter@ufl.edu so that the *U Matter, We Care* Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352.392.1575. The *U Matter, We Care* Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.