**Professor** Jeffrey D. Rudolf

Office: 302G Joseph Hernandez Hall

Phone: 352.294.7221

E-mail: jrudolf@chem.ufl.edu

**Lectures** Tuesday and Thursday, 4<sup>th</sup>–5<sup>th</sup> period (10:40 am – 12:35 pm)

109 Keene-Flint Hall

Office hours Monday, 10:40 am - 12:35 pm

Wednesday, 10:40 am – 12:35 pm

**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.

Optional Textbooks 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.

Additional materials will be made available on the course e-Learning site

(http://elearning.ufl.edu).

**Lecture Schedule** A tentative schedule of lectures is available at the course e-Learning site.

**Grading** There will be 3 in-class exams (100 points each) and one ~30 min

presentation (50 points).

The three examinations (100 points each) will be scheduled during the semester (in-class on Sept. 17, Oct. 15, and Nov. 14). 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.

For the presentation (during the final few class periods, schedule **TBD**), pick one recent (2019 calendar year) published paper on a topic of your choice in the field of chemical biology. Introduce the background of the paper using key concepts learned (or what you think should have been learned) during the semester, and present the paper highlighting the significance, innovation, methods, results/discussion, and conclusions. You will be graded on comprehension, organization, clarity,

presentation, and ability to answer questions. Students must attend and attentively listen and participate in discussions regarding other students'

presentations. Failure to do so may result in a reduced presentation score.

The three test scores will be added together with the presentation score and **compared to the distribution** of total points for the class in order to assign a final letter grade.

Letter grades will be curved with approximate grade ranges (subject to change):

Practice problems: I will recommend practice problems from both Van Vranken/Weiss and Lehninger textbooks and previous course materials. These will not be collected or graded. They are provided to facilitate thinking about the concepts discussed in class and give examples of types of exam questions.

**Class Attendance** 

100% attendance and class participation are expected, but not graded (with the exception of the student presentations). Any assigned readings from the textbook(s) serve as a starting point and the classroom lectures will explain and expand upon this material. Excused absences are consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation.

Make-Up Work

Make-up exams will only be allowed under extremely rare circumstances. Any make-up exams will need to be planned far in advance of the exam.

**Course Evaluation** 

Students are expected to provide feedback on the quality of instruction in this course by completing two evaluations. One anonymous informal mid-semester evaluation will give me an opportunity to improve during the semester and you a chance to benefit from your own evaluations. Final evaluations at https://evaluations.ufl.edu are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Class Demeanor

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating of loud, distracting foods. 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.

**Academic Honesty** 

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 the University of Florida,

the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

## **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.

## **Additional Information**

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 a friend 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.