

**50:160:104: GENERAL, ORGANIC & BIOCHEMISTRY II**

**Spring 2024**

**15 WEEKS, 1/16-5/3**

**Sections: 01**

**Instructor: Christina Nase, Ph.D.** [christina.nase@rutgers.edu](mailto:christina.nase@rutgers.edu)

Tuesday/Thursday 9:35am-10:55am PEN 401

**Office Hours:** Tuesday/Thursday 11:00-12:00 am SCI B5

**Virtual Office Hours:** By appointment

**REQUIRED Course Materials:**

- **Calculator:** Basic, scientific (non-graphing) calculator
- **Canvas account:** use to access all course materials and communications at <http://canvas.rutgers.edu>- use your Rutgers net ID to access course content

**OPTIONAL Course Materials**

- **Raymond, Kenneth W.; General, Organic & Biological Chemistry, 4th Ed.** e-text directly through Wiley Publishers or B&N bookstore.

**General Information, Course Description, and Prerequisites:**

General, Organic and Biochemistry (GOB) II is designed for students who are majoring in health sciences or an allied health field. It will concentrate on some of the fundamental principles of chemistry introduced in General, Organic, and Biochemistry I and their application to health-related fields. *Prerequisite: 50:160:103. Corequisite: 50:160:105.*

**EVALUATION AND ASSESSMENT**

**Grading Distribution**

<ul style="list-style-type: none"> <li>• Quizzes, 10 @ 20 pts. each (in class, drop lowest quiz)</li> <li>• Exams, 4 @ 200 pts. each (in class)</li> </ul>	200 points <u>800 points</u> 1000 points
Optional final exam will replace lowest exam score	

**Grading Scale**

The following grading scale will be used in this course:

900-1000 pts. = A	700-749 pts. = C
850-899 pts. = B+	600-699 pts. = D
800-849 pts. = B	Below 600 pts. = F
750-799 pts. = C+	

**Learning Objectives:** Students will:

1. Gain interest in the fields of general chemistry, organic chemistry and biochemistry
2. Develop a broad knowledge base in these fields
3. Develop skills in communication, teamwork, and quantitative analysis
4. Become proficient in problem solving through engaging in the process of science
5. Make connections to other disciplines
6. Make connections to societal issues, especially those involving medicine and health care.

**Serious Emergencies and Absences:**

If a serious emergency or problem (hospitalization, serious automobile accident, or death of a close family member, for example) occurs that will cause you to be absent from school, please advise the **Office of Student Affairs, 856-225-6050**. That office will notify all your professors of your absence. **Emergencies need to be documented to be excused from quizzes and exams.**

**Academic Integrity:**

*Every student is prohibited from engaging in violations of academic integrity.* Note that every instructor is ethically bound to follow certain procedures once a student is caught, or suspected of, breaching academic integrity (see *Rutgers University Academic Integrity Policy*). Any material submitted by a student in this course for academic credit (i.e., grading) must be that student's own work. Also, all students should strictly adhere to the rules governing any quiz, exam or homework that is assigned.

The Rutgers University Academic Policy is found at <http://academicintegrity.rutgers.edu>. All students are expected to show respect to everyone both on and off campus and to abide by this policy.

**Course material copyrights.** Any course materials (including quizzes, lectures, and exams) are protected by copyright. You may not (and you may not allow others to) reproduce or distribute these course materials publicly (whether or not a fee is charged) without the copyright holder's (i.e., the course instructor's) express written consent.

**Attendance Policy for Lectures:**

Attendance to lectures is essential as it will help you prepare for exams, quizzes, and homework. The Learning Center can provide individual tutoring for this class.

**Student Accommodations:**

**Rutgers University welcomes students with disabilities** into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form at <https://webapps.rutgers.edu/student-ods/forms/registration>. Accommodations are not retroactive and are effective only upon submission of the LOA to the instructor.

Week	Tuesday	Thursday
1 (1/16-1/21)	Chapter 1: Science and Measurements	Chapter 2: Atoms and Elements
2 (1/22-1/28)	Chapter 2: Atoms and Elements <b>Quiz 1 In class 1/23</b>	Chapter 3: Compounds
3 (1/29-2/4)	Chapter 3: Compounds	Chapter 4: Solutions <b>Quiz 2 In class 2/1</b>
4 (2/5-2/11)	<b>Exam 1 (Ch 1-4) In class 2/6</b>	Chapter 5: Acids and Bases
5 (2/12-2/18)	Chapter 5: Acids and Bases <b>Quiz 3 In class 2/13</b>	Chapter 6: Buffers and Titrations
6 (2/19-2/25)	Chapter 6: Buffers and Titrations <b>Quiz 4 In class 2/20</b>	Chapter 7: Organic Reactions
7 (2/26-3/3)	Chapter 7: Organic Reactions <b>Quiz 5 In class 2/27</b>	<b>Exam 2 (Chapters 5-7) In class 2/29</b>
8 (3/4-13/10)	Chapter 8: Nucleic Acids	Chapter 8: Nucleic Acids <b>Quiz 6 In class 3/7</b>
3/11-3/17	<b>Spring Break</b>	
9 (3/18-3/24)	Chapter 9: Amino Acids and Proteins	Chapter 9: Amino Acids and Proteins <b>Quiz 7 (Ch 8) In class 3/21</b>
10 (3/25-3/31)	Chapter 10: Enzymes	Chapter 10: Enzymes <b>Quiz 8 In class 3/28</b>
11 (4/1-4/7)	<b>Exam 3 (Ch 8-10) In class 4/2</b>	Chapter 11: Carbohydrates
12 (4/8-4/14)	Chapter 11: Carbohydrates <b>Quiz 9 In class 4/9</b>	Chapter 12: Lipids and Membranes
13 (4/15-4/21)	Chapter 12: Lipids and Membranes <b>Quiz 10 In class 4/16</b>	Chapter 13: Metabolism
14 (4/22-4/28)	Chapter 13: Metabolism <b>Quiz 11 In class 4/23</b>	<b>Exam 4 (Ch 10-12) In class 4/25</b>
15(4/29-5/8)	Final Exam Review	