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Chemistry 112, Introduction to Organic and Biochemistry
Spring 2024, CRN 33641
Dr. Joshua Mandir
jmandir@utk.edu

Lecture: TuTh 11:20 AM – 12:35 AM Alumni Memorial Building Auditorium

Office: 416 Buehler Hall

Office Hours: Tuesdays 10:00 AM – 11:00 AM
Thursdays 1:15 PM – 2:15 PM
Mondays 1:00 PM – 3:00 PM in Strong Hall 308

or by appointment, please send me an email to schedule an appointment.

Email: jmandir@utk.edu Given the amount of email I receive, you must include a subject that is informative and *your name with course number*. Please don't hesitate to email me with updates, questions, or concerns. I will respond to all emails usually in no more than 24 hours.

Lecture TA: Mason Jones, mjone307@vols.utk.edu

Course Description: A course that provides an introduction to organic and biochemistry. Students will learn functional groups and basic reactions. They will also learn about carbohydrates, lipids, proteins, and enzymes.

Textbook: Bettelheim et al. *Introduction to General, Organic, and Biochemistry*, 12th Edition. OWLv2 online homework systems is required for this course. With your purchase of OWLv2 you receive a built-in electronic copy of the aforementioned textbook. This means that you do not need to purchase a hard copy of the textbook unless you wish to. OWLv2 and the e-text are included with your Inclusive Access purchase.

Canvas: Class announcements, lecture notes, course documents, and grades will be posted on Canvas (utk.instructure.com). Students are responsible for monitoring their UTK e-mail account and the course site.

Clicker: A clicker is required for the course. There will be clicker questions in many lectures. I will count the clickers two different ways: 1) Attendance 2) As participation points. All questions will be worth 2 points for the correct answer and 1 point for the incorrect answer. You do not need to purchase a physical clicker since you can use a laptop or your mobile device as a clicker. Please register your clicker online (<https://oit.utk.edu/teachingtools/clickers/>). There are no make-up points for clickers. You do not need a physical clicker, there is an app for your phone.

Technical Support: For technical issues, contact the OIT HelpDesk by phone at (865) 974-9900 or at the [Walk-in HelpDesk](#). For IT and Computing issues, use the online [Contact Form](#)

I expect from you the following:

- Be prepared for all classes
- Be respectful of others
- Actively contribute to the learning activities in class
- Abide by the UT Honor Code

Grading:

Three exams:	45% (Exam 1: 15%; Exam 2: 15%; Exam 3: 15%)
Online Homework assignments	15%
Quizzes	15%
Participation (Clicker & Attendance)	5%
Final Exam (comprehensive)	20%

Grading Scale:

- 93.0 and above: A
- 88.0 – 92.9 A-
- 84.0 – 87.9 B+
- 80.0 – 83.9 B
- 76.0 – 79.9 B-
- 72.0 – 75.9 C+
- 68.0 – 71.9 C
- 64.0 – 67.9 C-
- 60.0 – 63.9 D+
- 56.0 – 59.9 D
- 52.0 – 55.9 D-
- 51.9 and below F

Note: These letter grade assignments are subject to change, but only in the direction beneficial to the students.

Exams: There will be three (3) 90-minute regular exams and one (1) two-hour Final exam. No make-up exams will be given. If one of the three exams is missed due to excused absence, then the final exam will count as the excused exam grade. An excused of missed exam or absence will only be considered with the support of written documentation. **The re-grading of an exam** must be requested within 5 school days of receiving the graded exam. All regular exams will be scanned and uploaded to Canvas after being graded. To request a re-grade, e-mail a detailed explanation of what should be re-graded. With regrades, the entire exam will be regraded. The final exam will be comprehensive and will count for 20% of the final grade and will be given during final exam week. Every student is required to take a comprehensive final exam during the scheduled exam period. *If the final exam is a higher grade than the lowest exam grade then the final exam grade will replace the lowest exam grade as long as all 3 regular exams are taken.*

Always bring your student ID to all lectures, and exams. Keep your cell phone off during lectures, and exams.

Exam Schedule (All dates are tentative, all exams will be during normal class times in Buehler Hall 555)

Exam 1: Tuesday, February 20th, 7:00 PM – 9:00 PM

Exam 2: Tuesday, March 26th, 7:00 PM – 9:00 PM

Exam 3: Tuesday, April 23th, 7:00 PM – 9:00 PM

Final Exam: Friday, May 10th, 10:30 AM – 12:45 PM

Calculator policy: Calculators are not allowed on exams.

Quizzes: There will be five online quizzes that you will access through OWLv2. You will be able to access these quizzes from 9 am to 9 pm on the day that the quiz is available. The quizzes will be timed at 20 minutes and will be comprised of five questions worth 5 pts each. Your lowest quiz grade will be dropped at the end of the semester.

Online Homework: We will be using OWLv2 electronic homework systems. Due dates for ALL assignments can be found on OWLv2 and in each Chapter Module. Each homework set is comprised of a set of mastery assignments with three questions apiece. You only need to answer 2 of the 3 mastery questions correctly in order to master a group. For each mastery group, you get 10 attempts. Late homework is not accepted unless it is due to an extenuating circumstance and proper documentation is provided.

Extra Help: In addition to my office hours, two other resources are available for you:

- 1) TAs will have office hours that will be announced during the first week of class.
- 2) There is drop-in help at the Chemistry Tutorial Centers (Buehler Hall 513, Strong Hall 303, and Zoom), with hours to be announced on Canvas. It's free and staffed by Graduate Teaching Assistants.
- 3) Student Success Center. A supplemental Instruction (SI) is also free for all the students who want to improve their understanding of the course content. For more information please see <https://studentsuccess.utk.edu>
- 4) Use the textbook resources: OWLv2 has the textbook, videos, and extra assignments that are not due that are intended to help you learn the assignments.

ACADEMIC DISHONESTY: An act of academic dishonesty may lead to such penalties as reduction of grade, probation, suspension, or expulsion from the University. I reserve the right to assign a grade of zero for actions involving violations of the following University of Tennessee Honor Code:

"An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity."

IN summary, this course has a zero tolerance policy on cheating. Individual cases will be prosecuted to the full extent possible.

Generative AI Tools: In this course, it is expected that all submitted work is produced by the students themselves. Students must not seek the assistance of Generative AI Tools like ChatGPT. Use of a Generative AI Tool to complete an assignment constitutes academic dishonesty.

Disability Services: please contact the Office of Disability Services (ODS) at 2227 Dunford Hall, phone 974-6087 or use <http://ods.utk.edu>, if you require course adaptations or accommodations due to a disability, or if you have emergency information to share. The disability must be documented. ODS will work with the students and the faculty to coordinate reasonable accommodations for students with documented disabilities.

Learning Objectives for Chemistry 112:

1. Be introduced to organic chemistry and understand what organic chemistry encompasses.
2. Learn how to identify and name different functional groups on organic compounds, as well as learn the IUPAC system for naming organic compounds.
3. Become familiar with basic organic reactions.
4. Learn the basics of biochemistry.
5. Be able to identify and name monosaccharides and oxidation reactions of saccharides.
6. Learn how to classify lipids based on structures and properties.
7. Identify and name amino acids. Understand the properties and characteristics of amino acids.
8. Understand the structure of proteins and the role that amino acids play in proteins.
9. Learn how to study and not just memorize material, but instead be able to apply it and gain a sound understanding of the material.

Chem 112 Tentative Schedule

Week	Day	Lecture	Homework	Quizzes/Exams
1	1/23	Intro/Ch. 10		
	1/25	Chapter 10		
2	1/30	Chapter 11		
	2/1	Chapter 11	Review and Ch. 10 due 2/4	
3	2/6	Chapter 12		Quiz 1 on 2/6
	2/8	Chapter 12	Chapter 11 due 2/11	
4	2/13	Chapter 12		
	2/15	Chapter 12	Chapter 12 Part A due 2/18	
5	2/20	Review		Exam 1 (Ch. 10-12) 2/20
	2/22	Chapter 13	Chapter 12 Part B due 2/25	
6	2/27	Chapter 13		Quiz 2 on 2/27
	2/29	Chapter 14	Chapter 13 due 3/3	
7	3/5	Chapter 14		
	3/7	Chapter 15	Chapter 14 due 3/17	
	3/12	Spring Break		
	3/14			
8	3/19	Chapter 16		Quiz 3 on 3/19
	3/21	Chapter 16	Chapter 15 due 3/24	
9	3/26	Review		Exam 2 (Ch. 11-12) 3/5
	3/28	Spring Recess - No Class		
10	4/2	Chapter 16		
	4/4	Chapter 17	Chapter 16 due 4/7	
11	4/9	Chapter 17		Quiz 4 on 4/9
	4/11	Chapter 18	Chapter 17 due 4/14	
12	4/16	Chapter 18		
	4/18	Chapter 19	Chapter 18 due 4/21	
13	4/23	Chapter 19		Exam 3 (Ch. 13-15) 4/23
	4/25	Chapter 20	Chapter 19 due 4/28	
14	4/30	Chapter 20		Quiz 5 on 4/30
	5/2	Review	Chapter 20 due 5/5	
15	5/7	Review	Final Prep due 5/7	
	5/9	Final Exam - 10:30 AM - 12:45 PM		

The instructor reserves the right to revise, alter, or amend this syllabus as necessary. Students will be notified in writing / email of any such changes.