

Chemistry 325 Syllabus Fall 2021

My hope is that this semester, we can work together to build relationships and remain healthy as we study the exciting field of organic chemistry. To build relationships, I ask that you talk with each other in lab and when working on in class activities. To stay healthy, please follow the COVID-19 safety guidelines as directed by the University. Please respect one another's needs by properly wearing your face covering to cover your nose and mouth, sitting every other seat in the classroom, giving people space in lab when working with shared equipment, and using supplies to clean your area before and after use. Finally, if you are sick (have a fever, bad cough, loss or taste or smell, digestive issues), please stay home and recover. I will work with you about completing missed activities.

Instructor	Robin S. Tanke, Ph.D.
Phone:	715-346-4325
E-mail:	rtanke@uwsp.edu
Office:	CBB 447 (Lab: CBB 436 East end)
Office Hours:	Monday 1-2 PM, Thursday and Friday 10-11AM, by appointment

Class Sessions:

Lecture:	M, W, F	12 PM	CBB 105
Lab 1	T	11 AM – 2 PM	CBB 420 and CBB 426
Lab 2	R	2 PM – 5PM	CBB 420 and CBB 426

Exam Schedule:

- ☞ Exam 1: Friday, October 1, 2021
- ☞ Exam 2: Friday, October 22, 2021
- ☞ Exam 3: Friday, November 12, 2021
- ☞ Exam 4: Friday, December 3, 2021

Final Exam: Monday, December 13, 2021 10:15-12:15

Learning Outcomes

By the end of this course, students will

- ☺ predict the physical properties and chemical reactivity of simple organic molecules
- ☺ propose products and reasonable mechanisms for chemical reactions based on a fundamental understanding of organic chemistry.
- ☺ propose efficient syntheses of simple organic molecules.
- ☺ use a variety of characterization data to identify organic compounds.
- ☺ safely prepare, purify and characterize organic compounds and appropriately document and present their laboratory work.

Prerequisite: Chem 117, Chem 106 or equivalent

Required Materials:

- The text, available at text rental, is Organic Chemistry, Fifth Edition by Janice Smith
- You will need a bound laboratory notebook. The pages will need to be numbered; you may buy one with numbered pages or number the pages yourself.
- You will need to sign up for LabFlow – See details for how to sign up on CANVAS. This will be used for general prelab instructional videos and quizzes and for on-line labs in the unfortunate event we can no longer meet in person.
- You are required to obtain safety goggles (not glasses) to work in lab. Also please bring a Mask and hand sanitizer to lab.

Recommended Materials:

- Molecular Models (STRONGLY RECOMMENDED) Model kits are available from Indigo (www.indigo.com) for about \$32.00. The bookstore also has model kits available for you to purchase.
- Study Guide and Solutions Manual for Organic Chemistry, Fifth Edition by Smith and Smith (RECOMMENDED) This manual gives answers to all the problems in your text. A few copies are on reserve at the library.

Grading: The tentative letter grades will be given as follows: 'A' – 705 pts; 'B' – 622 pts; 'C' – 540 pts, 'D' – 488 pts. Please note that you must receive a grade of "C-" or better to take Chem 326.

General Chemistry Review	30 pts
Homework Assignments (4@ 25 points each)	100 pts
4 Exams (70 points each)	280 pts
Laboratory Grade ¹	185 pts
Final Exam	155 pts

Notes

1. Details of the laboratory grade are discuss in the Lab

LATE WORK POLICY: I expect work to be turned in at the designated time; however, if work must be late, you will receive a 10% grade reduction for material 1 day to 1 week late. Any work turned in more than 1 week late will not be accepted except under special circumstances.

Student Conduct:

Given the new state policies regarding attendance of students receiving financial aid, attendance will be taken at times throughout the semester.

You are required to attend exams and labs at the assigned time. Unexcused absences during these times are unacceptable. Excused absences will be granted under certain conditions; contact me as soon as possible if you need to miss an exam or lab.

Please be respectful of your classmates and be aware of everyone needs for personal space!

Students are reminded that they are to conduct themselves in accordance with the rules for academic conduct. Academic misconduct is described in Chapter UWSP 14 and is to be followed by all students, staff, and faculty. This document that may be accessed via the University Web site at <http://www.uwsp.edu/dos/Documents/CommunityRights.pdf#page=11>. An excerpt from it follows:

UWSP 14.03 ACADEMIC MISCONDUCT SUBJECT TO DISCIPLINARY ACTION.

Academic misconduct is an act in which a student:

1. Seeks to claim credit for the work or efforts of another without authorization or citation;
2. Uses unauthorized materials or fabricated data in any academic exercise;
3. Forges or falsifies academic documents or records;
4. Intentionally impedes or damages the academic work of others;
5. Engages in conduct aimed at making false representation of a student's academic performance; or
6. Assists other students in any of these acts.

Disabilities: If you have disabilities and need any special accommodations, you should contact the office of Disability Services during the first two weeks of the semester.

Accommodations for Religious Beliefs: Religious beliefs will be accommodated according to UWS 22.03 provided I am notified during the first three weeks of classes.

STEM Tutoring – Fall 2021 We will have Chem 325 group tutoring this fall; details will be given before week 3.

What	Location	Schedule	Cost
STEM Drop-In Tutoring	CBB 190	No appointment needed – stop by when tutors are available: https://www.uwsp.edu/tlc/Pages/dropInTutoring.aspx .	Free
STEM One-on-One Tutoring	ALB 018	By appointment. Visit ALB 018 (library basement) to make a request or complete online request form here: https://www.uwsp.edu/tlc/Pages/request-math-science-tutoring.aspx .	Free

Robin Tanke Fall Semester 2021

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00					
09:00	Research	375 Lec 01 261		375 Lec 01 261	375 Lec 01 261
10:00	Research		WC	Office hour	Office Hour
11:00	Research	325 Lab 02L1 420			
12:00	325 Lec 02 261	325 Lab 02L1 420	325 Lec 02 261		325 Lec 02 261
13:00	Office Hour	325 Lab 02L1 420			
14:00			375 Lab 01L1 420	325 Lab 02L2 420	Meeting or Seminar
15:00		Curriculum Committee	375 Lab 01L1 420	325 Lab 02L1 420	Meeting or Seminar
16:00		Curriculum	375 Lab 01L1 420	325 Lab 02L1 420	

Chemistry 325 Tentative Schedule Fall 2021

Week #	Topic	Assignment
1 (9/2)	Unit 1: Covalent Bonding and Organic Molecules First Class on 9/3	Review General Chemistry
2 (9/6)	Unit 1 Continued; Unit 2: Acids and Bases (Class on 9/8 and 9/10 – 9/6 is Labor Day)	Review Due Wednesday 9/10
3 (9/13)	Unit 2 continued, Unit 3: Functional Groups	
4 (9/20)	Unit 3: IR spectroscopy and Mass Spectrometry	Homework 1 due 9/24
5 (9/27)	Unit 4: Alkanes and Conformational analysis	Exam 1: Friday, 10/1
6 (10/4)	Unit 5: Chirality	
7 (10/11)	Unit 6: Reaction Mechanisms	Homework 2 due 10/15
8 (10/16)	Unit 7: NMR Spectroscopy (National Chemistry Week!)	Exam 2: Friday, 10/22
9 (10/25)	Unit 8: Substitution reactions	
10 (11/1)	Unit 8 continued, Units 9: Elimination Reactions	Homework 3 due 11/5
11 (11/8)	Unit 9 continued, Unit 10 Alcohols and Ethers	Exam 3: Friday, 11/12
12 (11/15)	Unit 10 and Unit 11 Alkenes	
13 (11/22)	Unit 11 and Thanksgiving (No Lab this week)	Homework 4 due Wednesday 11/24
14 (11/29)	Unit 12: Chemical Reactions involving Radicals	Exam 4: Friday, 12/3
15 (12/6)	Organic Syntheses and Review	
16 (12/13)	Cumulative Final Exam 10:15 – 12:15 Monday 12/13/21	