

## Chemistry 342-Organic Chemistry II Summer 2019

**Instructor:** Dr. Rui Zhang      **Classroom:** Snell 4114  
**Office:** COHH 2110      **Meeting Time:** M to F 9:00 am -11:30 am  
**Office Tel:** 745-3803      **Office Hour:** Walk-in or by appointment  
**Email:** [rui.zhang@wku.edu](mailto:rui.zhang@wku.edu)      **Text:** "Organic Chemistry, 11<sup>th</sup> or 12<sup>th</sup> edition" by Solomons  
**Online Homework:** Sapling registration is required with a cost of \$40.  
**Supplemental Text:** "ACS Organic Chemistry Exam (Study Guide)" and "Organic Chemistry (II) as a Second Language" by David R. Klein  
**Prerequisites:** CHEM 340 with a grade of "C" or better. **Corequisites:** CHEM 343

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### Important Dates

**Monday, July 8:** Classes begin.

**Friday, July 19,** Last day to drop with a W. Last day to change a course from credit to audit.

**Friday, August 2, 9 am-11:00 am:** ACS Final Exam in Snell 4114.

**Course Description:** CHEM 342 is the second semester of a two-semester sequence, which will focus on providing broader insights into the reactions and mechanisms of organic compounds and their chemical reactivity. Fundamentals of general chemistry and organic chemistry, nomenclature, as well as spectroscopy methods will be reinforced.

### Course Outline and Sequence

**Chapter 10:** Radical Reactions  
**Chapter 11:** Alcohols and Ethers  
**Chapter 12:** Alcohols from Carbonyl Compounds  
**Chapter 13:** Conjugated Unsaturated System:  
**Chapter 14:** Aromatic Compounds  
**Chapter 15:** Reactions of Aromatic Compounds  
**Chapter 16:** Aldehydes and Ketones: The Carbonyl Group  
**Chapter 17:** Carboxylic Acid and Their Derivatives  
**Chapter 18:** Reactions at the *alpha* Carbon of Carbonyl Compounds  
**Chapter 19:** Condensation and Conjugate Additions of Carbonyl Compounds

### Grading

This course will be graded on a *curve*. Approximate grade cut-offs will be announced after each exam. You will be graded on a relative, subjective scale in this course, and the points will be distributed as follows (subject to minor modification):

Homework (10 × 10)	100
Quiz Section (10 × 10)	100
Midterm Exams (4 × 100)	400
ACS Exam (mandatory)	100
Total	700 points

**Exams:** Midterm Exams 1 and 3 (1 hour test time) will be given at regular class meeting time in Snell 4114 on the following specified dates listed below. Exam 2 and 4 will be take-home. *The exam dates may be subject to change based on actual teaching pace.*

Examination Dates:    Wednesday, July 17, Exam 1 (**Ch 10-12**); In class  
                                 Wednesday, July 24, Exam 2 (**Ch 13-15**); *Take-Home*  
                                 Monday, July 29, Exam 3 (**Ch 16, 17**); In class  
                                 Thursday, August 1, Exam 4 (**Ch 18, 19**); *Take-Home*  
                                 Friday, August 2, ACS Final Exam (**cumulative**)

**Quizzes**-10 quizzes will be given throughout the course. They will last only ca. 10 minutes. Quizzes will be administered either at the start of lecture or take-home format. There are no make up for quizzes. **10**-Points may be earned for each quiz.

**Online Sapling Homework** (10 × 10 points): After each chapter, you will be assigned a set of problems from the Sapling online homework. Please go to the Sapling Learning page at [macmillanlearning.com](http://macmillanlearning.com) and click US Higher Ed to log in or create an account.

**Extra Credit:** Significant improvement (> 20 points) in the course of study, reflecting from your latest Test's score (10 points). Bonus questions (up to 15 points) from each midterm exam.

### Blackboard

We will use the Blackboard web-based system in the course. Teaching notes, tutorial materials, assignments, practice problems, answer keys, and grade distributions will be posted at that site in PDF files.

### Attendance Policy

Poor attendance reflects a poor scholastic attitude. Excessive and non-excused absences (4 or more) will result in a **failing** grade. Three absences will drop your grade by one letter. A sign-in sheet will be passed around for your signature in each class. No excuse is accepted for more than four absences.

### Study Tips

Because over 10 million organic compounds exist, memorizing the structure, properties, and reactivity of all of them would be almost impossible. Luckily, **a few** fundamental ideas underlie all organic reactions. By **understanding** these themes and trends (*not by memorizing them!*), you should be able to rationalize unfamiliar reactions and mechanisms through analogy.

- **Prepare for class!** Read the chapter scheduled to be covered before coming to lecture. Understanding will not occur on the first exposure to new material, therefore if the lecture presentation is your second sighting of the concepts, your understanding will be much better. You will also be prepared to ask questions about complex ideas.
- **Lectures are important!** Skipping lecture will guarantee failure. The lecture and the textbook serve complementary roles. The lectures are meant to highlight concepts, simplify difficulties and expand on implications. In lecture you should be attentive. A mature student will transcribe not only what the instructor writes on the board, but also what the instructor says.

- **Apply your knowledge!** Doing problems is the quickest way to discover whether your understanding is incomplete or incorrect.
- **Study regularly and actively!** Consistent study of chemistry is essential for success. Simply studying two days before the exam will make failure likely.
- **Ask questions!** There is no such thing as a bad question. You pay good money to attend this school, so take advantage of the instructor's understanding and availability.

**Students with Disabilities:**

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in DUC A-200 of the Student Success Center in Downing University Center. Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

Although I will make every effort to follow this syllabus exactly, I reserve the right to make changes, as I deem necessary throughout the course.
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