

## Course Syllabus for CHEM 2321 – 12390; Organic Chemistry I

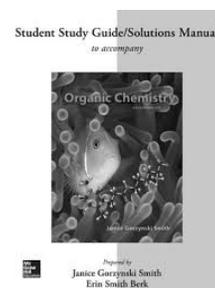
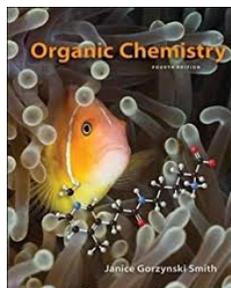
Fall Semester 2019; Lectures: MWF; 8:30 am – 9:20 am, Undergraduate Learning Center 216

**Instructor:** Dr. K. Michael; Office: CCSB 2.0414; Phone: 747-5240;  
**Office hours:** Email [kmichael@utep.edu](mailto:kmichael@utep.edu) (preferred method of contact)  
Fridays, 3:00 pm – 4:00 pm, or by individual appointment

**Text (required):** “Organic Chemistry” by Janice Gorzynski Smith, 4<sup>th</sup>, 5<sup>th</sup>, or 6<sup>th</sup> Edition and the Student Study Guide/Solutions Manual; Publisher: McGraw-Hill. The edition of the textbook and the edition of the Student Study Guide/Solutions Manual must match. For example, if you use the 4<sup>th</sup> edition of the textbook, then you need the matching 4<sup>th</sup> edition of the Student Study Guide/Solutions Manual. The same text book and Student Study Guide/Solutions Manual will be used for CHEM 2322 (Organic Chemistry 2) in the spring semester 2020, instructor: Dr. K. Michael

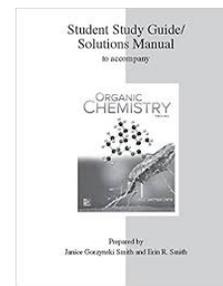
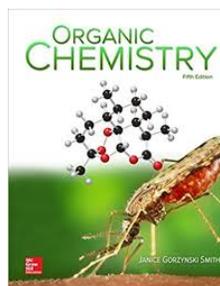
This is how the three different editions of the Smith text and the accompanying Student Study Guide/Solutions Manual look.

4<sup>th</sup> edition:



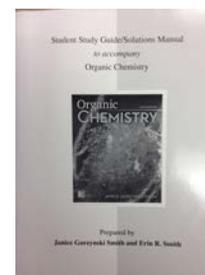
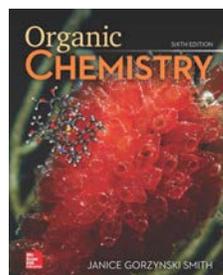
OR

5<sup>th</sup> edition:



OR

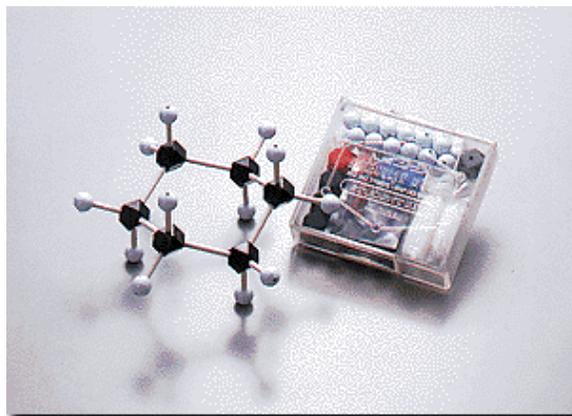
6<sup>th</sup> edition:



The UTEP bookstore sells the loose leaf version of the text (6<sup>th</sup> edition) for \$171.50. They also sell the digital version (6<sup>th</sup> edition) for \$232, but this does not contain the Student Study Guide/Solutions Manual. The Student Study Guide/Solutions Manual (6<sup>th</sup> edition) is sold for \$197.25. The bookstore also sells earlier editions of this book, please inquire about the price at the bookstore. You can also order this book and the Student Study

Guide/Solutions Manual on-line, and sometimes used copies are available for significantly lower prices.

**Additional material (required):** A molecular ball and stick model set. It can be purchased at the UTEP bookstore for < \$18.00. However, it doesn't have to be that particular brand and model. Any molecular model set for organic compounds will work. These models will help you visualize molecules in three dimensions, which is very important for understanding conformation and stereochemistry. You may bring your molecular models to all classes and exams in CHEM 2321 (Fall semester 2019) and CHEM 2322 (Spring semester 2020).



**Expected Learning Outcomes:** Students will acquire a firm foundation of basic organic chemistry, *i.e.*, the understanding of the properties, structures, interactions, transformations, and nomenclature of organic molecules.

**Curriculum:** This course will cover the first 12 chapters plus chapters A,B, and C of the 6<sup>th</sup> edition, or the first 14 chapters of the 4<sup>th</sup> or 5<sup>th</sup> edition of the introductory organic chemistry textbook "Organic Chemistry" by Janice Smith. The material to be covered includes chemical bond theory (chapter 1), acid-base reactions (chapter 2), functional groups (chapter 3), alkanes (chapter 4), stereochemistry (chapter 5), basics of organic reactions (chapter 6), nucleophilic substitutions (chapter 7), elimination reactions (chapter 8), alcohols, ethers, and epoxides (chapter 9), alkenes (chapter 10), alkynes (chapter 11), oxidation and reduction (chapter 12), mass spectrometry [chapter A (6<sup>th</sup> edition); chapter 13 (4<sup>th</sup> or 5<sup>th</sup> edition)], infrared spectroscopy and nuclear magnetic resonance spectroscopy [Chapters B and C (6<sup>th</sup> edition); chapter 14 (4<sup>th</sup> or 5<sup>th</sup> edition)].

The lecture will follow the textbook closely in the given order of the chapters. It is recommended that you bring your textbook (hard copy or electronic version) to each class, follow along, and take notes. The lecture materials will not be posted; all information needed is provided in the text book. If you prefer the hard copy text over digital, one advantage of the loose leaf version is that you can bring individual chapters to class rather than carrying the heavy text book.

**Attendance:** Attendance is required will be occasionally checked.

**Homework:** **Reviewing the material covered in each class in your textbook and practicing the assigned homework problems is essential for mastering the class material. VERY IMPORTANT: After each class homework problems will be posted in Blackboard for you to practice on your own or with other students in order to do well in the class.** The homework will not be turned in. **Practicing and understanding (not memorizing!) these homework problems is your best preparation for all exams. The exam questions will be very similar to the assigned homework problems.**

<b>Exam Dates:</b>	<b>1<sup>st</sup> Midterm Exam:</b>	Monday, Sept. 23, 2019 (chapters 1 – 4)
	<b>2<sup>nd</sup> Midterm Exam:</b>	Wednesday, Oct. 23, 2019 (chapters 4 – 8)
	<b>3<sup>rd</sup> Midterm Exam:</b>	Wednesday, Nov. 20, 2019 (chapters 8 – 12)
	<b>Final Exam:</b>	Monday, Dec. 9, 2019, 10:00 am – noon, [chapters 1-12, A, B, C (6 <sup>th</sup> edition; chapters 1-14 (4 <sup>th</sup> or 5 <sup>th</sup> edition)]

**Exam Policies:** Only two (not three) midterm exams and one final exam count toward your semester grade. Therefore, you only have to take two (not three) midterm exams, and the final exam. However, it is to your advantage to take all three midterm exams because the two best midterm exams (by letter grade) will count toward your semester grade. Of the three midterm exams, the one with the lowest letter grade (or the one you didn't take) will be dropped. It is your responsibility to bring:

- **A #2 pencil**
- **Your UTEP ID**
- **An Apperson form 29240** (not a scantron !!!!), see image attached. The bookstore sells these forms for \$0.25 each.

The final exam will be mostly cumulative and cannot be dropped. All exams are closed book exams. You can use your molecular model set in all exams. Written notes and electronic devices are not allowed. All exam questions will be in multiple-choice format. Each midterm exam has 20 questions; the final exam has 40 questions.

**Extra Credit:** Each midterm exam will have one additional question (question #21), and the final exam will have two additional questions (questions #41 and #42) for extra credit. The extra credit can only be applied to the exam in which this question appeared. For example, extra credit earned for midterm exam 1 can only be applied to your midterm exam 1 score, but not to any of the other exams.

**Make-up Exams:** In general, there are no make-up exams. Make-up exams will be granted in extraordinary situations, e.g. participation in a scientific conference, official travel of UTEP athletes, medical reasons with a doctor's note stating that you are unable to take the exam on the scheduled date. In all of these circumstances, make-up exams have to be requested in advance. Granted make-up exams are oral and will take place by appointment in Dr. Michael's office.

**Grading:** Your semester grade will be calculated based on:

- your two best midterm exams by letter grade (2 × 25%)
- your final exam by letter grade (50%)

**Other Policies:** The lecture will follow the textbook closely in the given order of the chapters. It is recommended that you bring your textbook (hard copy or electronic version) to each class and follow along, and take notes. The lecture materials will not be posted.

**Important Dates:**

First class:	Monday, August 26, 2019
Labor Day	Monday, September 2, 2019 (no classes)
Census Day:	Wednesday, September 11, 2019 (last day to drop class without W)
Course drop deadline:	Friday, November 1, 2019
	The College of Science will not approve any student- or faculty-initiated drop requests for a course after that date, except under circumstances of complete withdrawal of all courses due to medical or non-medical reasons.
Thanksgiving:	Thursday, Friday, November 28-29, 2019 (no classes)
Last CHEM 2321 class:	Wednesday, December 4, 2019

This is how the **Apperson form 29240** looks like. At the bottom of the form it says "#29240". The UTEP bookstore sells it. You can also get it at Kinley's House Coffee & Tea, 2231 N. Mesa Street, however, at Kinley's they want you to purchase a food/drink item.

Key (K)    Verify (V)    Rescore (R)

Name		Date	
Teacher		Class	
School		Period	
Test Name			

← THE NO. 2 PENCIL ONLY    • Example    (A)    (B)    (C)    (D)

Student ID Number										Test ID				
00	00	00	00	00	00	00	00	00	00	00	00	00	00	
01	01	01	01	01	01	01	01	01	01	01	01	01	01	
02	02	02	02	02	02	02	02	02	02	02	02	02	02	
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08	08	08	08	08	08	08	08	08	08	08	08	08	08	
09	09	09	09	09	09	09	09	09	09	09	09	09	09	

1.	(A)	(B)	(C)	(D)	(E)	35.	(A)	(B)	(C)	(D)	(E)	69.	(A)	(B)	(C)	(D)	(E)
2.	(A)	(B)	(C)	(D)	(E)	36.	(A)	(B)	(C)	(D)	(E)	70.	(A)	(B)	(C)	(D)	(E)
3.	(A)	(B)	(C)	(D)	(E)	37.	(A)	(B)	(C)	(D)	(E)	71.	(A)	(B)	(C)	(D)	(E)
4.	(A)	(B)	(C)	(D)	(E)	38.	(A)	(B)	(C)	(D)	(E)	72.	(A)	(B)	(C)	(D)	(E)
5.	(A)	(B)	(C)	(D)	(E)	39.	(A)	(B)	(C)	(D)	(E)	73.	(A)	(B)	(C)	(D)	(E)
6.	(A)	(B)	(C)	(D)	(E)	40.	(A)	(B)	(C)	(D)	(E)	74.	(A)	(B)	(C)	(D)	(E)
7.	(A)	(B)	(C)	(D)	(E)	41.	(A)	(B)	(C)	(D)	(E)	75.	(A)	(B)	(C)	(D)	(E)
8.	(A)	(B)	(C)	(D)	(E)	42.	(A)	(B)	(C)	(D)	(E)	76.	(A)	(B)	(C)	(D)	(E)
9.	(A)	(B)	(C)	(D)	(E)	43.	(A)	(B)	(C)	(D)	(E)	77.	(A)	(B)	(C)	(D)	(E)
10.	(A)	(B)	(C)	(D)	(E)	44.	(A)	(B)	(C)	(D)	(E)	78.	(A)	(B)	(C)	(D)	(E)
11.	(A)	(B)	(C)	(D)	(E)	45.	(A)	(B)	(C)	(D)	(E)	79.	(A)	(B)	(C)	(D)	(E)
12.	(A)	(B)	(C)	(D)	(E)	46.	(A)	(B)	(C)	(D)	(E)	80.	(A)	(B)	(C)	(D)	(E)
13.	(A)	(B)	(C)	(D)	(E)	47.	(A)	(B)	(C)	(D)	(E)	81.	(A)	(B)	(C)	(D)	(E)
14.	(A)	(B)	(C)	(D)	(E)	48.	(A)	(B)	(C)	(D)	(E)	82.	(A)	(B)	(C)	(D)	(E)
15.	(A)	(B)	(C)	(D)	(E)	49.	(A)	(B)	(C)	(D)	(E)	83.	(A)	(B)	(C)	(D)	(E)
16.	(A)	(B)	(C)	(D)	(E)	50.	(A)	(B)	(C)	(D)	(E)	84.	(A)	(B)	(C)	(D)	(E)
17.	(A)	(B)	(C)	(D)	(E)	51.	(A)	(B)	(C)	(D)	(E)	85.	(A)	(B)	(C)	(D)	(E)
18.	(A)	(B)	(C)	(D)	(E)	52.	(A)	(B)	(C)	(D)	(E)	86.	(A)	(B)	(C)	(D)	(E)
19.	(A)	(B)	(C)	(D)	(E)	53.	(A)	(B)	(C)	(D)	(E)	87.	(A)	(B)	(C)	(D)	(E)
20.	(A)	(B)	(C)	(D)	(E)	54.	(A)	(B)	(C)	(D)	(E)	88.	(A)	(B)	(C)	(D)	(E)
21.	(A)	(B)	(C)	(D)	(E)	55.	(A)	(B)	(C)	(D)	(E)	89.	(A)	(B)	(C)	(D)	(E)
22.	(A)	(B)	(C)	(D)	(E)	56.	(A)	(B)	(C)	(D)	(E)	90.	(A)	(B)	(C)	(D)	(E)
23.	(A)	(B)	(C)	(D)	(E)	57.	(A)	(B)	(C)	(D)	(E)	91.	(A)	(B)	(C)	(D)	(E)
24.	(A)	(B)	(C)	(D)	(E)	58.	(A)	(B)	(C)	(D)	(E)	92.	(A)	(B)	(C)	(D)	(E)
25.	(A)	(B)	(C)	(D)	(E)	59.	(A)	(B)	(C)	(D)	(E)	93.	(A)	(B)	(C)	(D)	(E)
26.	(A)	(B)	(C)	(D)	(E)	60.	(A)	(B)	(C)	(D)	(E)	94.	(A)	(B)	(C)	(D)	(E)
27.	(A)	(B)	(C)	(D)	(E)	61.	(A)	(B)	(C)	(D)	(E)	95.	(A)	(B)	(C)	(D)	(E)
28.	(A)	(B)	(C)	(D)	(E)	62.	(A)	(B)	(C)	(D)	(E)	96.	(A)	(B)	(C)	(D)	(E)
29.	(A)	(B)	(C)	(D)	(E)	63.	(A)	(B)	(C)	(D)	(E)	97.	(A)	(B)	(C)	(D)	(E)
30.	(A)	(B)	(C)	(D)	(E)	64.	(A)	(B)	(C)	(D)	(E)	98.	(A)	(B)	(C)	(D)	(E)
31.	(A)	(B)	(C)	(D)	(E)	65.	(A)	(B)	(C)	(D)	(E)	99.	(A)	(B)	(C)	(D)	(E)
32.	(A)	(B)	(C)	(D)	(E)	66.	(A)	(B)	(C)	(D)	(E)	100.	(A)	(B)	(C)	(D)	(E)
33.	(A)	(B)	(C)	(D)	(E)	67.	(A)	(B)	(C)	(D)	(E)						
34.	(A)	(B)	(C)	(D)	(E)	68.	(A)	(B)	(C)	(D)	(E)						

DataLink 3000 / Scantron (formerly Marktron)  
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