

<b>Class meeting place and times</b>	213 Spencer Chemistry Building, Mon Tue Wed Thu 11:45 am-1:30 pm
<b>Instructor</b>	Prof. Ekaterina N. Kadnikova
<b>Phone</b>	816-235-5937
<b>Office</b>	Spencer Chemistry Building 109B
<b>Office hours</b>	Tue Wed Thu 10:30-11:30 am in SCB 109B or SCB 211 (conference room)
<b>E-mail</b>	<a href="mailto:KadnikovaE@umkc.edu">KadnikovaE@umkc.edu</a> (for private issues, put "CHEM 320" in subject) <a href="https://www.facebook.com/groups/CHEM320/">CHEM320@groups.facebook.com</a> (for course content questions)
<b>Tutors</b>	Sean Mark ( <a href="mailto:sjm898@mail.umkc.edu">sjm898@mail.umkc.edu</a> ) and Chris Wester ( <a href="mailto:cjwh27@mail.umkc.edu">cjwh27@mail.umkc.edu</a> ) Dates and times for tutoring sessions will be posted on Blackboard
<b>Discussion group</b>	Closed Facebook discussion group, monitored by tutors and Prof. Kadnikova. Go to <a href="https://www.facebook.com/#!/groups/CHEM320/">https://www.facebook.com/#!/groups/CHEM320/</a> and REQUEST TO JOIN

### Course objectives

The objective of the course is to provide the fundamentals of structure, bonding, and reactivity of organic compounds, organic reactions, and spectroscopic techniques used to identify organic compounds.

### Course impact

Biochemistry and pharmacology classes you will be taking later in your studies will rely heavily on your good command and understanding of the organic chemistry concepts. Life IS organic chemistry!

### Class materials

The required text is the 7th edition of *Fundamentals of Organic Chemistry* by McMurry and Simanek (Brooks/Cole, ISBN 978-1-4390-4971-6). Corrections and clarifications related to the textbook will be posted on the Blackboard.

Recommended resources: *Study Guide with Solutions Manual* (ISBN 978-1-4390-4972-3) and a molecular model kit.

These materials are available from many sources – use ISBN.

E-book versions are available only from the publisher (<http://www.cengagebrain.com/shop/ISBN/9781439049716?cid=APL1>)

### Study baskets

Study baskets can be checked out for in-library use at the Circulation Desk of the Miller Nichols Library (MNL) and at the Front Desk of the Oak Street Dorms. There are three baskets, each containing the following four books:

- *The Bridge To Organic Chemistry: Concepts and Nomenclature*, by Yoder, Leber, Thomsen (ISBN 978-0-470-52676-7)
  - also available as an e-book at <http://laurel.iso.missouri.edu/record=b8099876~S3>
- *Organic Chemistry I as a Second Language: Translating the Basic Concepts*, 2nd Edition, by Klein (ISBN 978-0-470-129296)
- *Organic Chemistry II as a Second Language: Second Semester Topics*, by Klein (ISBN 978-0-471-73808-4)
- *Arrow-Pushing in Organic Chemistry: An Easy Approach to Understanding Reaction Mechanisms*, by Levy (ISBN 978-0-470-17110-3)
  - also available as an e-book at <http://laurel.iso.missouri.edu/record=b7730719~S3>

\*\*\* Klein's *Organic Chemistry as a Second Language* books can also be checked-out individually for in-library use at MNL\*\*\*

### Internet resources

Internet access and a valid UMKC e-mail account are required for access to Blackboard content. Facebook discussion group may require Facebook account for full posting access

### Blackboard and course announcements

All course information, including all announcements, take-home assignments, the keys to quizzes and exams, old problem sets and exams, and your grades, will be posted only on the Blackboard ([blackboard.umkc.edu](http://blackboard.umkc.edu)).

### Discussion group

Your questions about this course and its content can be asked in the Facebook group (by posting or by e-mailing [CHEM320@groups.facebook.com](mailto:CHEM320@groups.facebook.com)). Questions about this course and its content e-mailed to Instructor directly ([KadnikovaE@umkc.edu](mailto:KadnikovaE@umkc.edu)) could also be answered in the Facebook group as well, if doing so would not violate FERPA.

### Class policies

This class shall be conducted in in compliance with UMKC and UM system policies <http://cat-edit.umkc.edu/Catalog/ViewCatalog.aspx> and [http://www.umsystem.edu/ums/rules/collected\\_rules/programs/ch200](http://www.umsystem.edu/ums/rules/collected_rules/programs/ch200). In this class, students may NOT make any audio or video recordings of course activity (except disability accommodations).

### Academic honesty

Cheating and other forms of academic dishonesty shall not be tolerated in this class. It is your responsibility to understand the facets of academic honesty and to uphold the UMKC rules of academic conduct (see General Catalog). Violators will receive an "F" grade for the course and will be reported to the Deans of their academic units (i.e., A&S, SBS, SOM, etc.) and will face disciplinary action from the University. Rarely, first-offense tainted work may instead receive a score of 0 (zero), which cannot be dropped.

### Regrade and grievance procedures

Regrade requests for the exams should be submitted to the Instructor as soon as possible, and no later than within one week of receiving the graded exam back. Regrade Request Form is available on Blackboard.

Any grievance about grading or conduct of the class should be taken first with the Instructor. After contact with the instructor, further comments and complaints may be addressed to the Chemistry Department Chair. The grade appeal procedure is available at <http://cas.umkc.edu/Forms/documents/GradeAppealProc.pdf>.

### Academic accommodations for students with disabilities and for student athletes

If you have a documented disability and desire academic accommodations, please contact the Office of Services for Students with Disabilities as soon as possible (<http://www.umkc.edu/disability/>).

If you are a student athlete, any official requests for possible academic accommodations should be submitted well in advance, and no later than one week before the scheduled conflict. Drop exam policy applies.

### Sexual harassment and discrimination

University of Missouri-Kansas City has a zero tolerance policy for sexual harassment, intimidation, or discrimination of any kind. If you (or our peers) have a question or experience anything of this kind, please talk with and/or report this conduct to the Departmental Chair, the Dean, and Affirmative Action Office. UMKC policy is online at <http://www.umkc.edu/helpline/forms/complaintprocess.pdf>.

### Texting

Texting during class is rude. You may be asked to leave. Texting (or similar activities) during the quizzes and exams is forbidden; it will be considered cheating regardless of the content of the messages.

### Class attendance

Lecture attendance is strongly encouraged, but will not be recorded. Keep in mind that there will be quizzes on most Thursdays. Changes to the schedule or to the assignments will be announced in class and posted on Blackboard. It is the responsibility of the student (not of the Instructor) to obtain the material covered in class and to be aware of the announcements.

### Grading

Class total is 600 points (quizzes (150) + regular exams (300) + final exam (150)).

The approximate grading scale will be as follows:

85-100 %	= A (the highest grade),
70-84 %	= B (work of distinction)
55-69 %	= C (average work)
40-54 %	= D (passing, but unsatisfactory)
0-39 %	= F (failure without credit)

The grade cut-offs will not be raised, but maybe slightly lowered, depending on the class performance. Plus/minus grading will be used sparingly.

The letter grade definitions above are taken from the *UMKC Undergraduate Catalog*

(<http://cat-edit.umkc.edu/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=98&chapterid=8331>).

### Quizzes

There will be 12 short in-class and/or take-home quizzes worth 15 pts each. There will be no make-up quizzes. Your two lowest quiz scores will be dropped. If you miss a quiz for any reason, this would be your drop quiz. Total is 150 pts.

### Examinations

Three hour examinations (100 pts each) will be given during the semester. There will be no make-up exams. If you miss one (*and only one*) exam with a valid documented excuse (such as an illness confirmed by a doctor's note or a documented family emergency), the weight of this exam will be transferred to the final (*i.e.*, your missed exam score will be your % score of the final). In all other circumstances, you will receive *zero points* for the missed exam. No scores will be dropped, but if you perform better on the final than on one of the hour exams, you can replace that exam's score with your % score on the final. *A comprehensive final exam (150 pts) will be given on the last day of class (August 1).*

### Extra credit

Small-molecule drugs and their use in medicine will be highlighted at the end of this course. Students may earn extra credit (up to 20 pts) by preparing a short PowerPoint presentation (up to 10 slides) on a certain drug or drug class. These presentations will be peer-reviewed. The best presentations will be selected for in-class talks (up to 10 minutes). The sign-up list will be distributed in early July.

Please review the syllabus before e-mailing or posting  
any questions about the class policies, especially those concerning grading

## Homework problems

It is impossible to learn organic chemistry just by reading the textbook and attending lectures. It takes practice, practice, and practice to understand the principles of the organic chemistry and to convert them into useful skills. It is thus paramount to solve a lot of problems. You should do all in-text problems while you are reading the material (except Ch 14, for which you can do only those listed below). If you cannot solve in-text problems, do not go forward, but reread the previous sections, until you understand how to do the problem. If are still having trouble, seek help from your study group, from your tutors, from Facebook discussion group, or from the Instructor.

Once you completed the chapter, do the problems at the end of the chapter. The list of the problems below aims to help you focus your attention on the problems most relevant to the topics discussed in class. These problems also serve as good examples of the exam questions.

You are encouraged to do as many problems as possible, including problems not on the list, and I, of course, would be happy to discuss any of them in Facebook discussion group or during the office hours.

For several topics, there are also additional problem sets posted on the Blackboard, and the contents of "study baskets" will provide you with even more problems.

Finally, check the "Book corrections" section on the Blackboard, to be aware of issues in the textbook and the solution manual.

Ch	Additional problems
1	in-text + 31, 34, 35, 39, 40, 42, 44, 45, 46, 49, 52, 55, 56, 57, 60, 61, 62, 63, 64, 65, 67, 68, 70
2	in-text + 34, 36, 37, 38, 39, 40, 43, 44, 45, 46, 47, 48, 50, 51, 54, 56, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 71, 72
3	in-text + 26, 28, 29, 30, 31, 32, 34, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 50, 51, 53, 54, 55, 56, 57, 58, 59, 61
4	in-text + 27, 28, 29, 30, 33, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 50, 51, 52, 53, 55, 60, 61, 62, 65
5	in-text + 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 39, 40, 42, 44, 45, 46, 47ac, 48, 49, 50, 51, 54, 55, 56, 57, 58, 60
6	in-text + 25, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 57, 58, 59, 60, 63; also see selected problems from Ch 14
14	Only 2, 3, 4, 5, 6, 7, 32, 33, 46, 47
13	in-text + 32, 33, 37, 39, 41, 42, 44, 49, 50, 51, 52, 53, 54, 57, 59, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 76
7	in-text + 25, 26, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 41, 44, 45, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 61, 63, 64
8	in-text + 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 44, 45, 47, 48, 51, 53, 54, 55, 58, 59, 60, 61, 63, 67
9	in-text + 25, 26, 27, 29, 30, 31, 33, 34, 37, 38, 39, 41, 42, 43, 45, 46, 48, 52, 53, 56
10	in-text + 33, 34, 35, 38, 39, 43, 44, 45, 47, 49, 50, 52, 53, 54, 55, 56, 57, 59, 60, 62, 64, 67, 68, 72
11	in-text + 22, 23, 25, 26, 28, 29, 30, 32, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 51, 53
12	in-text + 25, 26, 27, 28, 30, 31, 34, 35, 39, 43, 45, 47, 48, 50, 52, 54, 57
17	in-text + 12, 13, 14, 15, 16, 17, 18, 19, 23 (use Fig 17.4), 25, 26, 28 (cf. 25), 29, 30, 31, 33, 34, 40, 41 (you can look up amino acid structures for problems 9 and 26, since you are not expected to know them)

## Tutoring sessions

Two tutors were hired by the School of Medicine to help the CHEM 320 students in the 6-year MD program: Sean Mark and Chris Wester. Their excellent study skills have contributed greatly to their excellent performance in CHEM 320. Everybody is welcome to attend these twice-weekly sessions. Days and times will be posted on the Blackboard. Tutors would also monitor the Facebook discussion group, as time permits.

## Private tutors

Prof. Kadnikova may have a short list of private tutors who worked with her students before and who familiar with her teaching approach. Please ask, if you are interested in this information. No endorsements or guarantees are implied.

Department of Chemistry also maintains a list of all chemistry private tutors, for informational purposes only, and without endorsement. The list is posted outside of the Chemistry Department Office (Spencer Chemistry Building 205).

**TENTATIVE SCHEDULE (UPDATED 6/8/13)**

*This schedule is tentative and is subject to change during the course of the semester. Any changes will be announced in class and posted on Blackboard. It is the responsibility of the student to be aware of the changes.*

Mon	Lecture	Tue	Lecture	Tue quiz	Wed	Lecture	Thu	Lecture	Thu quiz
6/10	Syllabus, Ch 1	6/11	Ch 1,2	Q1	6/12	Ch 2	6/13	Ch 3	Q2
6/17	Ch 3,4	6/12	Ch 4	Q3	6/13	Ch 5	6/16	Ch 5	Q4
6/24 <sup>@</sup>	Ch 6	<b>6/25</b>	<b>Exam 1<sup>#</sup></b> (Ch 1-5)		6/26	Ch 6	6/27	Ch 13	Q5
7/1	Ch 13	7/2	Ch 7	Q6	7/3	Ch 8 assignment (no class)	7/4	Independence Day (no class)	Q7
7/8	Ch 8	7/9	Ch 9	Q8	7/10 <sup>@</sup>	Ch 9	<b>7/11</b>	<b>Exam 2<sup>#</sup></b> (Ch 6, 13, 7-8)	
7/15	Ch 10	7/16	Ch 10	Q9	7/17	Ch 11	7/18	Ch 11	Q10
7/22	M-in-M I	7/23	Ch 11	Q11	7/24 <sup>@</sup>	Ch 12	<b>7/25</b>	<b>Exam 3<sup>#</sup></b> (Ch 9-11)	
7/29	Ch 12, 17	7/30	Ch 17	Q12	7/31 <sup>@</sup>	M-in-M II	<b>8/1</b>	<b>Final Exam<sup>#</sup></b> (comprehensive)	

<sup>@</sup> Help sessions are in SCB 213, 4-5:30 pm on the eve of the exam.

<sup>#</sup> Exams are in Royall 111. Seats assignments will be displayed in the exam room. You may request a left-handed seat or a front-row seat in advance. All other accommodations need to originate from the Student Disability Services.

**Tips for success**

- **Work hard and daily!** Learning organic chemistry takes a lot of hard work and hours of studying (typically, 3 h per each lecture hour, so during the Summer semester 24 hours a week is a good start). There are no magic formulas or simple solutions. Don't wait until the last week or last night before an exam to start studying.
- Read the material before the lecture. The lecture should then be easier to follow and lecture notes easier to take. Re-read the material soon after the lecture, review and correct your lecture notes, if necessary.
- *How to do your homework.* Work the problems within the chapters as you come to them. If you are unable to solve the problem at the time, you have probably missed the key point of the section. Reread that section of the chapter and attempt to rework the problem. Work the assigned problems at the end of each chapter (it would be beneficial to work some of the unassigned ones as well). Only check the answer in the study guide after you have given the problem an honest effort.
- You are encouraged to do as many problems as possible, including book problems not on the list, additional problems posted on Bb, and study basket problems. I, of course, would be happy to discuss any of them during the office hours.
- Form study groups or get your own tutor early on, if you know that you will need extra help.
- Take advantage of the tutoring sessions and Facebook discussion group. They are there for your benefit.
- Take advantage of the help sessions before each exam to get your final questions answered. Do not come to the help sessions expecting to absorb some useful information without having studied the material beforehand. In that case, you are better off spending that time studying.
- Above all, do not fall behind and think that you will catch up later. In all likelihood, you will only fall further and further behind.
- Be prepared for the quizzes. They are designed to keep you from falling behind, so take your performance on them seriously.
- Come see the Instructor (during her office hours or make an appointment), especially you are having problems with this class.