



**CHE 311 - 001 : Organic Chemistry II
Spring 2014**

Instructor : Prof. K.C. Russell

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What you need: Organic Chemistry with Biological Applications, 2nd ed. McMurry (ISBN10 0-495-39144-1)

- A clicker for taking quizzes
- An OWL code

Prerequisite: A grade of "C-" or better in CHE 310

Course Times: Monday, Wednesday & Friday 11:00 - 11:50 AM; SC 308

Discussions: TBA

Office Hours: TBA
By appointment. I have an open door policy. Call, text, email, chat...

Learning Outcomes: At the end of this lecture course students should be able to

- 1) understand the types of reactions typical for compounds containing the C-X group (X = halide, OH, OR, NR₂), aldehydes, ketones, carboxylic acids, esters, acyl halides, amides, and aromatic rings.
- 2) analyze compounds based on their functional groups in order to predict chemical reactivity.
- 3) apply the principles of electron motion to provide mechanisms for a selection of fundamental organic reactions
- 4) evaluate simple organic molecules in order to create possible synthetic routes
- 5) analyze spectral data in order to predict the structures of the organic compounds which created them.

Grading Policy:

Points towards your course grade will be accumulated according to the following table:

| Activity | Points |
|---------------------------|------------|
| Exam #1 | 100 |
| Exam #2 | 100 |
| Exam #3 | 100 |
| ACS Final Exam | 200 |
| In-Class Quizzes | 30 |
| Explicit Revision Quizzes | 35 |
| OWL Homework | 35 |
| Total | 600 |

If you are within 1% of the next higher grade and have 100 % or better on your OWL homework and explicit revision quizzes individually you will receive the next higher grade.

Your final letter grade will be assigned based on the following curve:

| | | |
|----------------------|----------------------|----------------------|
| | A ($\geq 86.00\%$) | A- (83.00 – 85.99 %) |
| B+ (80.00 – 82.99 %) | B (76.00 – 79.99 %) | B- (73.00 – 75.99 %) |
| C+ (69.00 – 72.99 %) | C (64.00 – 68.99 %) | C- (60.00 – 63.99 %) |
| D+ (55.00 – 59.99 %) | D (50.00 – 54.99 %) | |
| | F ($\leq 49.99\%$) | |

However, under no circumstances can the homework be used to increase your final course grade beyond your best exam letter grade.

For example: E1 = 52, E2 = 56, E3= 54 and Final = 110. Your best letter grade on an exam is a 'D+'. You cannot receive a letter grade of 'C-' for the course even if your homework score = 100 and your final total is 61%.

Hour Exams: All exams will consist of short answer questions and will take place from 2:00 – 5:00 PM on the following dates at the following locations:

| | | |
|---------------|----------|------------------------------------|
| Hour exam I | CH 10-14 | Friday, February 14, 2014 (SC 201) |
| Hour exam II | CH 15-18 | Friday, March 21, 2014 (SC 201) |
| Hour exam III | CH 19-22 | Friday, April 18, 2014 (SC 201) |

Exam etiquette: Plan ahead! You will not be allowed to bring anything to exams except writing instruments and your student ID card, which you should place on your desk. You may not have any personal electronic devices on your person during the exam, with the exception of non-calculating wristwatches. Persons found in possession of electronic devices during the test will receive a zero for the exam and be reported to the Dean of Students. If you bring other items to the exam you may leave them in the front of the room for the duration of the exam. The instructor will not be responsible for items that may be lost or stolen. My advice is to bring nothing into the room except what you need to take the test. If you are cell phones in the front of the room, be sure to put them in silent mode.

Final Exam:

Monday May 5, 2014. 10:10 – 12:00 PM

The final will be the ACS exam, cumulative for the entire book.
A study guide for the final is available through the ACS

http://www4.uwm.edu/chemexams/guides/details_guides.cfm?ID=163

The Student Affiliates of the American Chemical Society may also have copies available for sale (at discounted rates) through my office. It is possible that a small component of the final exam may be taken directly through OWL. All OWL problems will involve 3-dimensional structural analysis (chemdoodle).

Missed Exams:

No make-up exams will be given. If you have an excused absence day of one of the three semester hour exams, you must notify me ***in advance***. The score for the missed exam will be half of your final exam score. You may only miss one exam. You will receive a score of zero and not be able to replace your score if no notification is given. You will be dropped from the class if you miss two exams.

Re-grades:

Any corrections in grading must be addressed within 48 hours of when an exam returned in class or a homework assignment is due. Re-grades must be requested in writing using the on-line re-grade form. You must clearly explain all errors and provide support for why your answer is correct. Requests not giving sufficient explanations will be dismissed. When a re-grade is requested, the entire exam or homework will be re-graded.

<http://www.nku.edu/~russellk/courses/regrade.pdf>

Old Exams

Exams for the following courses which I have taught are available on line: CHE 311 spring 2013, CHE 310 fall 2013.

<http://www.nku.edu/~russellk/courses/che311/311exam.htm>

Use of CHE 311 exams written prior to the spring 2012 is not allowed without the written consent of the instructor. Solutions for the old exams are not available. However, I would be more than happy to personally go over the old exam with you once you have attempted to answer questions.

OWL Homework:

Homework will be regularly be assigned during the semester using the OWL system. Assignments are due each Thursday at 11:55 PM. Students may make as many attempts as they wish before the due date.

Students who have completed assignments by the due dates are encouraged to take additional attempts since exam question may come from OWL homework assignments. Several of the homework assignments will require the ChemDoodle and jmol javascript applets. These applets can be downloaded through the OWL system. You will need to develop a proficiency in the use of these applets.

The home work component of you final grade will be calculated using the following equation:

$$HW = 35 * \left(\frac{\text{Your total OWL points}}{\text{Total possible OWL points}} \right)$$

**In-Class
Quizzes:**

Short, **closed-note** quizzes (60 seconds) will be given at the beginning of each class period. Quizzes will usually be three points. Answers will be recorded using clickers in most cases. Quizzes will reflect key concepts from the previous lecture or material that you should be familiar with from your reading of the lecture material for that class period.

There are absolutely no make-ups for quizzes. Your quiz component of your final grade will be calculated using the following equation:

$$Q = 32.5 * \left(\frac{\text{Your total quiz points}}{\text{Total possible quiz points}} \right)$$

Quizzes will begin at 11:00 AM promptly. Students taking the quiz will automatically receive one point.

Eligibility: In order to be eligible for quiz scores to be applied to your grade you must be in good standing in the class. Good standing is defined as a score of 60 or better on the previous exam or instructor approval for individuals with scores below 60. Instructor approval will only be granted after a one-on-one meeting with the instructor. Students with scores below 60 will have three business days from the date where the exam is returned to the class to meet with the instructor. The date that quizzes will not be counted will be retroactive to, and include, the date when the exam was returned in class.

**Explicit
Revision
Quizzes**

Explicit Revision (ER) quizzes may be given during selected class periods, but generally will be taken outside of class (office hours, appointment, drop by, etc.). After completing the quiz you will self-grade the quiz in **red pen** (required) and turn in the graded quiz to receive credit. **Quiz keys can only be copied directly onto ER quizzes that are being corrected. They cannot be reproduced in any other manner. Violation will be a serious breach of the NKU Student Honor Code and will be reported.** You will need a score of 85% to pass a quiz. There are four possible scores one can get for a passed mastery quiz: One or more bonus points will be given to individuals who pass mastery quizzes early; five points (standard score) will be given to those who pass quizzes by the appropriate exam date; three points will be given for quizzes passed within one week after the appropriate exam is given, and zero points after that. The dates when students must complete their mastery quizzes to receive extra credit will be announced as mastery quizzes become available. You may take each quiz as many times as needed to pass. However, one may only attempt a particular quiz once per day.

The ER quiz component of your final grade will be calculated using the following equation:

$$ER = 35 * \left(\frac{\text{Your total ER points}}{\text{Total possible ER points}} \right)$$

Posting Scores: Each student will adopt the name of a Chemistry Nobel Laureate. If you were enrolled in my course last semester, you will need to choose a new Laureate. I will use your chosen Laureate to post quiz and homework scores. Students may request not to have their scores posted, but they are still expected to adopt a Laureate. Laureates can be chosen through the course web page. Exam scores will be posted on Blackboard after the exams have been returned in class, and only for those who have received their exams. If you are not in class to pick up your exam it is your responsibility to make arrangements to pick up your exam from my office.

Email: I regularly contact the entire class through e-mail. By default I will use your NKU email address. If you wish to give me additional or alternate email addresses please let me know. I am not responsible for e-mails that are not received. When sending email please observe proper email etiquette. (<http://xrl.us/nkuetiquette>)

Please include a proper subject line and sign your name. No response will be given to emails containing coarse or other inappropriate language.

I generally reply to emails within 24 h, often sooner. If you do not hear from me, please try again. Do not hesitate to use the phone or text me.

Problems: In combination with your reading of the text, you should practice the problems within the chapters. Textbook problems will not be graded but I would be happy to go over any problems you have with you.

Tutorials: There are a number of Internet tutorials created for this class. These tutorials are designed to help you with many of the more difficult problems of organic chemistry, in particular those which are spatial.

On Reserve: The following are on reserve at the library (under Kempton):
1) Solution Manual for McMurry
2) Guide To Electron Pushing

What I recommend: Colored Pens: In my lectures I often use a color scheme to highlight different aspects of the material. Students are encouraged to also use colored pens when taking notes.
Three Notebooks: Use one notebook to take in class notes. Use a second notebook to critically recopy your notes while supplementing them with material from the textbook. Identify questions and get answers! Use the third notebook to work problems from the text and from OWL.
Model Kits: There are many types of models, but the models sold by the ACS Student Affiliates will be sufficient (\$20 cash – my office). You will be allowed to use these models on all exams this semester except the final.

Classroom Decorum: PDAs, cell phones, pagers, calculators, and mp3 players are not to be used during the period unless specifically requested by the professor. Electronic communication devices must be in a quiet mode during class. In addition, laptop computers are not to be used unless students are using them to view on-line overheads, follow the textbook or for other class-related activities. Students found using laptop computer for non-class activities during the class period will no longer be allowed to use their laptops in class. Faculty members reserve the right to dismiss or to have removed disruptive students from their classrooms.

Disability Services Students with disabilities who require accommodations (academic adjustments, auxiliary aids or services) for this course must register with the Office of Disability Services. Please contact the disability service office in University Center Suite 320 or by calling (859) 572-6373 for more information. Verification of your disability is required in the disability services office for you to receive reasonable academic accommodations. Visit the disability services website at <http://www.nku.edu/~disability>.

Attendance: *Students must attend 80 % of the lectures to remain enrolled in the course.* I will use quizzes as my record of attendance. If you miss the quiz, you may sign the late sheet at the end of class. Instructor initiated drops will not be executed until after the first exam. Class begins at 11:00 AM promptly. I use the Official US Time Clock (<http://www.time.gov/>). Tardiness is a distraction to the instructor and other students.

Academic integrity The work in this course is subject to The **Northern Kentucky University Student Honor Code**. The Honor Code is a commitment to the highest degree of ethical integrity in academic conduct, a commitment that, individually and collectively, the students of Northern Kentucky University will not lie, cheat, or plagiarize to gain and academic advantage over fellow students or avoid academic requirements.

<http://www.nku.edu/audience/current-students/honor.html>

The **Northern Kentucky University Student Honor Code** will be strictly enforced in this class. Cheating is an extremely serious offense and will not be tolerated! Any unauthorized assistance on an examination or homework is considered cheating. The use of previously graded OWL assignments (other than your own) is considered cheating. In accordance with the *Code of Student Rights and Responsibilities*, faculty members have the right to determine actions to be taken when a student is caught cheating. Penalties for cheating can range from but are not limited to scores of zero on individual assignments or exams to expulsion from the University and does include failure of the course.

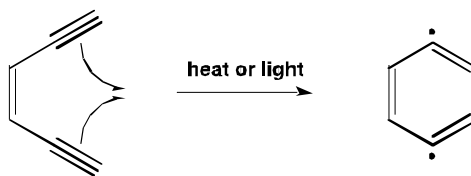
Course Evaluations:

Northern Kentucky University takes Instructor and Course Evaluations very seriously as an important means of gathering information for the enhancement of learning opportunities for its students. It is an important responsibility of NKU students as citizens of the University to participate in the instructor and course evaluation process. During the two weeks prior to the end of each semester classes, you will be asked to reflect upon what you have learned in this course, the extent to which you have invested the necessary effort to maximize your learning, and the role your instructor has played in the learning process. It is very important that you complete the online evaluations with thoughtfully written comments.

Student evaluations of courses and instructors are regarded as strictly confidential. They are not available to the instructor until after final grades are submitted, and extensive precautions are taken to prevent your comments from being identified as coming from you.

Student who does not complete the course evaluation (or opt out of doing so in the evaluation) should expect to incur a two week delay in access to his or her course grade beyond the university's official date for grade availability.

To complete online evaluations go to <http://eval.nku.edu>. Click on "student login" and use the same USERNAME and PASSWORD as used on campus.



The Bergman Cyclization

Note: This syllabus is subject to change.

Students are responsible for understanding all items on the syllabus. Any items not understood must be brought to the attention of the instructor within the first two weeks of class.