ANOKA-RAMSEY COMMUNITY COLLEGE COURSE SYLLABUS

Course:	Chemistry 2061 — Organic Chemistry I, 5 credits, Fall 2005
Lectures:	MWF 10:00-10:50 am, S245
	Th 1:00-1:50 pm, S235 (note the different room)
Prerequisite:	Grade of C or better in Chemistry 1062 or equivalent
Instructor:	Professor Andrew Aspaas, Office S202
Telephone:	763-422-3481
E-mail:	andrew.aspaas@anokaramsey.edu
Course Webpages:	http://webs.anokaramsey.edu/aspaas/2061/
	http://webs.anokaramsey.edu/chemistry/Chem2061
Office Hours:	M 11:00-12:00 am, 2:00-3:00 pm (Note: Office hours subject to change)
	W 11:00-12:00 am, 2:00-3:00 pm
	F 11:00-12:00 am
Chem Lab Manager:	Office S221, 763-422-3394
Science Secretary:	Bonnie Witte, Office S201, 763-422-3484, bonnie.witte@anokaramsey.edu

COURSE OUTCOMES

This is the first semester course of a year-long organic chemistry sequence. Upon completion of the course, the student should be able to:

1. Name and draw organic molecules
2. Understand concepts of stereochemistry and conformation
3. Predict synthesis and reactions of alkanes, alkyl halides, alkenes, alkynes, and alcohols
4. Make use of infrared, nuclear magnetic resonance, and ultraviolet spectroscopy, and mass spectrometry
5. Learn common organic laboratory techniques such as separation, extraction, distillation, chromatography

MATERIALS REQUIRED

- Textbook: Organic Chemistry, 6th Edition, L.G. Wade, Jr.
- Lab Text: Operational Organic Chemisry, 3rd Edition, John W. Lehman
- WebAssign Cards, available at the ARCC bookstore checkout
- Scientific calculator
- Outside-class access to an internet-connected computer at home ***or*** using the ARCC computer labs

OPTIONAL RESOURCES

- Solutions manual
- Prentice hall molecular modeling kits
- Website Links: Available at http://webs.anokaramsey.edu/chemistry and http://webs.anokaramsey.edu/aspaas/
- On-Campus Tutoring: Schedule will be posted at http://www.anokaramsey.edu/StudentServices/cr_chemistry.cfm and at the Academic Support Center

LABORATORY

Laboratory attendance is mandatory and experiments must be performed at the assigned time. If you must be absent, including for an illness, notify the professor in advance. Make-up labs may be arranged during other scheduled lab periods, *on a space-available basis, during the same week only*, by consulting with the professor If you miss a lab, or are unable to make it up during one of the other lab periods, it will count as a ZERO. However, the lowest laboratory score for the semester will be dropped. Students missing three labs will have their grade reduced by one full letter grade. Students missing four labs will have their grade reduced by two full letter grades. Students missing five or more labs will fail the course.

For safety reasons, it is essential that you read and comprehend the experiment and all related operations before lab. You must also fill out your laboratory notebook with the pre-experiment materials (experiment name and date, purpose, hypothesis, any equations involved, a table of physical properties for reactants and products, calculations required for quantities, list of materials, experimental outline or flowchart, safety hazards, and waste disposal)

Laboratory reports will be ordinarily be due at the start of your assigned lab period, one week after the laboratory is performed, unless announced otherwise by the professor. Students will either work individually or in pairs.

It is crucial that you arrive to laboratory on time, as discussions will start immediately. Safety glasses and goggles will be provided for you to wear whenever chemicals are being used in the laboratory.

CONDUCT AND ATTENDANCE

In order for this class to be successful, we must all work together to make the classroom environment one that's amenable to concentration and learning. The classes will start and end promptly at the times listed, so please make sure to find your seat a few minutes early, and do not start packing up your materials before the class is finished. If you arrive late, please use the back door and find a seat near the back of the class, being as minimally disruptive as possible. While I strive to maintain a fun and relaxed classroom environment, disrespectful behavior like interrupting the professor or other students, socializing during the class period, use of cell phones or other disruptive devices, or anything else which impedes on any other student's ability to focus and learn, will not be tolerated. Please remember to turn off your cell phones before lecture starts – we can make it a habit as I need to remember to turn mine off as well!

Disruptive students may be removed from class with or without warning, and may not return until meeting with Karen Kraft, Dean of Educational Services, and meeting the guidelines set forth in the Student Code of Conduct.

While I do not take attendance, class attendance is expected by college policy. Students are responsible for all information and assignments given in class. The easiest way to fall behind and ultimately fail a class is to be absent multiple times. Material moves relatively quickly in this course, so even one absence can put you behind. Please contact the professor in advance in person or by email if you know you will be absent.

ASSIGNMENTS AND QUIZZES

Reading assignments are given later in this syllabus. You should briefly skim the reading assignment before it is covered in class, and work through it in detail after the lecture.

Approximately **4 quizzes** will be administered as either in-class, take-home, or online quizzes in this course. The in-class quizzes may be unannounced, and may be open-notes, but will not be open-book. Take-home quizzes will be

announced in class but must be downloaded from the course website. Online quizzes will be available through Webassign (http://www.webassign.com). All quizzes will be worth approximately 10 points each. Make-up quizzes for excused absences *may* be available. See the professor.

Textbook practice problems will also be assigned. ***These are critical to your success in this course! Organic chemistry is learned with a pencil and paper.*** The problems assigned should be considered a bare minimum. If extra practice is needed, you should work more appropriate problems. Problems will not be collected.

WebAssign problems will be assigned for every chapter. These will generally be a series of short multiple-choice problem sets which can be answered on a website as instructed in class. These assignments will be scored electronically and are worth 5 points each. More information on these assignments will be given to you in the first two weeks of class. A WebAssign card is required to access these problems—these are available at the cashier in the ARCC bookstore.

Classroom participation is important to be successively engaged in the material. Approximately 50 points will be awarded over the course of the semester for in-class participation. Absences from lecture will also be reflected in this grade. Part of this grade will be assessed through your participation on the WebAssign message boards, an online collaboration environment where you can converse with your classmates and the instructor by posting messages. I think you'll find this to be a very useful way to get clarifications or alternative explanations on difficult concepts presented in this class.

EXAMS

Only those topics covered in lecture, laboratory, in the reading assignments, or the problem assignments will appear on the exams. Exams must be taken at the scheduled time. *Make-up exams may only be given in the case of documented emergencies, and must be completed before the exams are returned to the class (1-2 class periods following the exam).* The professor has the right to refuse a make-up exam. Exams may be arranged to be taken early, see the professor as soon as possible if you may need this option.

The lowest one-hour exam score will be dropped. If you miss an exam, that exam will count as a *zero* and will be the dropped exam. You should try your very best for each exam, since you never know when unplanned events may prevent you from taking a future exam. There will be four one-hour exams plus the final. Make-ups may be allowed for the final exam if the professor has been consulted in advance.

Alternative testing situations can be arranged for those students with a documented learning disability. Please notify the professor well in advance of the exam if you elect for this service. *The alternative exam time may not be later than the assigned exam time.*

STUDYING

Practice and studying in organic chemistry is critical to your success in this class. The concepts in this class will not be fundamentally more difficult than those in other science courses, but they will most likely require significantly more practice and self-study. Rote memorization of reactions and concepts in organic chemistry is tempting, but this is not an effective way to learn this type of material. The exams will test your ability to apply the fundamental principles learned to new situations—they will not simply ask to you regurgitate the material.

ACADEMIC DISHONESTY

Cheating or plagiarism of any kind will not be tolerated. Students will be given one warning upon the first instance of any cheating or plagiarism. Any incidents after the warning will result in the exam, quiz, or assignment in question to be given a grade of zero, which cannot be made up. Care will be taken to discuss proper formats for citing sources in written projects as needed throughout the semester. Many lab reports and group projects involve sharing of data and collaboration between several students; these instances do not constitute plagiarism as long as all contributors are listed on the assignment.

GRADES

These are the tentative point distributions for this course. Any significant changes to this policy will only occur in items 1 and 2.

1.	Laboratory	about 175 points
2.	Quizzes/Homework/Participation	about 125 points
3.	Three highest one-hour exam scores	300 points
4.	Final Exam	200 points
	Total	**about 800 points**

The final grade will typically be based on a total point system with the following letter grades:

A 88.0 % and above
B 76.0 - 87.9 %
C 64.0 - 75.9 %
D 52.0 - 63.9 %
F below 52.0 %

These letter grade percentages may be lowered but will not be raised.

CHEMISTRY 2061 ASSIGNMENTS

The problem assignments listed below should be considered the ***minimum*** number of end-of-chapter problems that should be completed in your studies. You should do as many in-chapter problems as possible while you are closely studying the chapter. For questions with several parts, do as many as you feel necessary to fully understand the material (and always do the most difficult last few parts). Additional practice should make you more proficient with the course material. As this is a new textbook edition, this table will be completed and posted to the website over the course of the semester.

Chap	Title	Reading Assignments	Suggested Problem Assignments
1	*Introduction and Review*	All sections	22, 23, 26, 27, 29, 31, 32, 34, 36, 37, 40, 41, 42, 45, 46
2	*Structure and Properties of Organic Molecules*	All sections	24, 25, 27, 29, 31, 32, 34, 35, 37, 39, 40, 41, 42, 43
3	*Structure and Stereochemistry of Alkanes*	All sections	33, 34, 37, 39, 40, 42, 43, 44, 45, 46
	Exam 1		
4	*The Study of Chemical Reactions*	4.1-4.4, 4.10, 4.12, 4.16	TBA
5	*Stereochemistry*	All sections	TBA
12	*Infrared Spectroscopy and Mass Spectrometry*	All sections	TBA
	Exam 2		
13	*Nuclear Magnetic Resonance Spectroscopy*	All sections	TBA
6	*Alkyl Halides: Nucleophilic Substitution and Elimination*	All sections	TBA
7	*Structure and Synthesis of Alkenes*	All sections	TBA
	Exam 3		
8	*Reactions of Alkenes*	All sections	TBA
9	*Alkynes*	All sections	TBA
10	*Structure and Synthesis of Alcohols*	All sections	TBA
	Exam 4		
11	*Reactions of Alcohols*	All sections	TBA

Chemistry 2061 Tentative Lecture, Exam, and Lab Schedule

Changes and updates to this schedule will be announced in class and posted at http://webs.anokaramsey.edu/aspaas

Lab	Monday	Tuesday	Wednesday	Thursday	Friday
Checkin/Safety **Expt 1** Effect of pH	Aug 22 Intro, Ch 1	23 Ch 1	24 Ch 1	25	26 Ch 1
Expt 2 Separation of Panacetin	29 Ch 1	30 Ch 2	31 Ch 2	Sept 1	2 Ch 2
Expt 3 Identifying comp. of Panacetin	5 No Class Labor Day	6 Ch 3	7 Ch 3	8	9 Ch 3
Minilab 4 **Q/A**	12 Ch 3	13 Ch 3	14 **Exam 1** Ch 1-3	15	16 Ch 4
Expt 4 Salicylic acid	19 Ch 4	20 Ch 4	21 Ch 4	22	23 Ch 5
Expt 18 Stereoisomers	26 Ch 5	27 Ch 5	28 Ch 5	29	30 Ch 12
Expt 5 Banana oil 1	Oct 3 Ch 12	4 Ch 12	Ch 12	6	7 **Exam 2** Ch 4-5, 12
Expt 5 Banana oil 2	10 Ch 13	11 Ch 13	12 Ch 13	13	14 Ch 13
NMR Field trip	17 Ch 6	18 Ch 6	19 Ch 6	20 No Class Education MN	21 No Class Education MN
Expt 6 Separation of hydrocarbons	24 Ch 6	25 Ch 6	26 Ch 6	27	28 Ch 7
Minilab 16 **Q/A**	31 Ch 7	Nov 1 Ch 7	2 Ch 7	3	4 **Exam 3** Ch 13, 6-7
Expt 7 Camphor	7 Ch 8	8 Ch 8	9 Ch 8	10	11 No Class Veterans Day
Expt 9 Lycopene	14 Ch 8	15 Ch 9	16 Ch 9	17	18 Ch 9
Expt 10 Clove oil	21 Ch 9	22 Ch 10	23 Ch 10	24 No Class Thanksgiving	25 No Class Thanksgiving
Expt 31 Grignard 1	28 Ch 10	29 Ch 10	Last Day 30 To Withdraw Ch 10	Dec 1	2 **Exam 4** Ch 8-10
Expt 31 Grignard 2 Clean-up	5 Ch 11	6 Ch 11	7 Ch 11	8	9 Ch 11
No Lab	12	13	14	15 **Final Exam** 4:10-6:10	16

Note: In the event the professor misses a class, the entire lecture schedule mayor may not be adjusted.

Name_____ Phone_____

Email Address_____
(Important information will be sent to this email address, so please make every effort to check it daily! Let me know if your email changes, as I will only reply to the address provided here to messages regarding any academically sensitive information.)

High School Attended_____ H.S. Graduation Date_____

College Year (circle one): PSEO Freshman Sophomore Other Student I.D. Number _____

College Major (if known)_____

Law requires that grades posted online must not reference your student ID number in whole or part. Please provide a 4-8 digit number which the professor will use to identify you in online grade postings. Please do **NOT** use your ID number, birthdate, Social Security number, phone number or any other number which can be easily traced back to you. The number cannot start with 0.

Unique number: _____ ☐ Do **NOT** post my grades online (check box)

Please list all math, physical science, and chemistry courses completed (high school and college):

Course Name or Number	Year	Location

Are you taking this course as a prerequisite for another course? If so, which one(s)?

What do you hope to attain from this course?

Please write down any questions or concerns you have regarding this course. Also, write down any information that you think may be helpful for the professor to know about you (visual or hearing impairment, planned absence, etc.)

What is something interesting about yourself that you'd like to share? (This helps me learn names)

I have received and read the course syllabus. I have read and understood the sections on the Laboratory, Conduct and Attendance, Assignments, Exams, and Grades and understand the information in these sections. Sign below.

Signature_____ Date_____ Course_____

(The data collected on this form will be used to provide the instructor information about each individual and the class as a whole. The instructor does not require that you provide any of this information. Information collected by the instructor will remain strictly confidential.)