CH 310M/318M **Dr. Brian M. Bocknack**
TTh 12:30–2:00 p.m. **Fall 2009**
WEL 1.308

Organic Chemistry I
(Unique # 53680/53840)

Instructional Staff:

Role	Name	Office Hours	Location
Lecturer	Dr. Brian M. Bocknack	M 10:00-11:30a Tu 2:00-3:00p W 1:00-2:30p F 10:00-11:30a **No office hours on Thursdays, M 9/7, F 9/25, F 10/23, F 11/20, W 11/25, F 11/27**	WEL 5.239
TA	Tom Barton	F 9:00-10:00a	Cubicle A outside WEL 1.308
TA	Derric Borthwick	Th 10:00-11:00a	Cubicle A outside WEL 1.308
TA	Jeremy Glass	TBA	TBA
TA	Himali Hewage	W 11:00a-12:00p	Cubicle A outside WEL 1.308
TA	Julie Lin	Tu 1:00-2:00p	Cubicle B outside WEL 1.308
TA	Pedro Metola	F 8:00-9:00a	Cubicle B outside WEL 1.308
TA	James Roberts	M 2:00-3:00p	Cubicle B outside WEL 1.308
TA	Matt Sanderson	W 10:00-11:00a	Cubicle A outside WEL 1.308

Fall 2009 office hours begin on Monday, August 31 and run through Friday, December 4

Course E-Mail:

All e-mail related to CH 310M/318M should be sent to the following address:

carbocation310@yahoo.com

E-mail sent to the instructor via Blackboard will be forwarded to this address. E-mail sent to other addresses will most likely not be answered! Please include the word "BOCKNACK" in the subject line for e-mail that requires Dr. Bocknack's attention. Please include the word "GRADING" in the subject line for e-mail related to any grading concerns. We will not respond to e-mail questions that can be answered via reference to this course syllabus! We will make every effort to respond to e-mail queries within 24 hours (longer during weekends and breaks). In general, questions about the course material are best asked in person at office hours – we will refer you to office hours if it is not possible to answer your question conveniently via e-mail.

Blackboard Course Web Site:

This course uses Blackboard, a Web-based course management system in which a password-protected site is created for each course. Student enrollments in each course are updated each evening. Blackboard will be used to distribute course materials, to communicate online, and to post grades.

You will be responsible for checking the Blackboard course site regularly for class work and announcements. As with all computer systems, there are occasional scheduled downtimes as well as

unanticipated disruptions. Notification of these disruptions will be posted on the Blackboard login page. Scheduled downtimes are not an excuse for late work.

Blackboard is available at:

http://courses.utexas.edu

Support is provided by the ITS Help Desk at 475-9400 Monday through Friday 8 am to 6 pm, so plan accordingly.

The lecture notes, homework, and exam answer keys that will be posted on Blackboard are for the benefit of students who are currently enrolled in Dr. Bocknack's Organic Chemistry I course. All of these materials will be removed from Blackboard shortly after the end of the Fall 2009 semester – course materials are not archived.

Course Materials:

Textbook (required): Brown, Foote, Iverson, & Anslyn, *Organic Chemistry*, 5th Ed., Brooks/Cole, 2008.
Study Guide (recommended): Iverson & Iverson, *Student Study Guide and Solutions Manual for Organic Chemistry*, 5th Ed., Brooks/Cole, 2008.

Effective Fall 2008, the 5th edition of the "Organic Chemistry" textbook by Brown, Foote, Iverson, and Anslyn will be required for Organic Chemistry I. All reading and textbook problem assignments will be made from the 5th edition of the text. Students who choose to use an earlier edition of the text do so at their own risk, and it will be their responsibility to check that they are doing the relevant readings and problem assignments.

Purchase of a molecular models kit is also highly recommended. Although use of models will not be allowed during exams, most students find them to be extremely helpful when first learning how to visualize the 3-dimensional structures of organic molecules. Inexpensive models kits can be purchased online at the following website: http://www.darlingmodels.com
Kits #1, 1A, 1B, or 3 should be perfectly suitable for this course. The student section of the American Chemical Society typically sells reasonably priced models kits (along with safety goggles and lab notebooks) at the beginning of the semester – look for their table in the Grand Hallway of Welch. You can also find models kits at local bookstores, but these tend to be a bit more expensive.

Prerequisites and Corequisites:

CH 302 with a grade of at least C, and credit or registration for CH 204 or CH 317. Additionally, students enrolled in CH 318M must have earned credit for or be currently enrolled in CH 118K.

Adds, Drops and Withdrawal:

Important Note: The instructor has no control over registration, and CANNOT add students into the course or to the waitlist for the course. All questions related to enrollment in the course should be directed to the Chemistry Lower Division Office in WEL 2.212.

Monday, August 31: Last day of the official add/drop period. After this date, changes in registration require the approval of the department chair and usually the student's dean.

Friday, September 11: Last day an undergraduate student may add a course except for rare and extenuating circumstances. Last day to drop the course for a possible refund.

Wednesday, September 23: Last day to drop the class without possible academic penalty.

Wednesday, October 21: Last day a Q drop can/will be assigned by the instructor. You will need the approval of Dr. Bocknack, your academic adviser, and your college's dean to drop the course at this point. After this date, withdrawal from the course requires a substantial non-academic reason, and can only be approved by your college's dean. Please note that only the results of the first midterm exam will be available before this deadline.

Attendance:

Although attendance will not be monitored, the lectures are the heart of this course. Attendance at all lectures is expected! Students will be responsible for all information and announcements presented in lecture. Cell phones, pagers, watch alarms, etc. should be turned off during all lectures.

Office Hours:

Please take advantage of office hours if you have any questions about the course content (lecture notes, textbook readings, homework assignments). Although e-mail has become increasingly important as a means of communication in modern society, it does not provide a convenient forum to discuss a visual subject like organic chemistry. You'll need to visit us in person to have your chemistry questions answered so that we can draw structures! **The complete schedule of office hours is available on the first page of this syllabus, and is also posted on the "I Need Help!!!" page of the Blackboard course website.** Any changes to this schedule will be announced as far in advance as possible on Blackboard, and if possible in lecture. Occasionally, last-minute cancellations of office hours are unavoidable due to illness or other emergencies. We will make every effort to post a sign at the office hours location if an unavoidable cancellation occurs.

Optional Weekly Discussion Sessions:

The teaching assistants will conduct several optional weekly discussion sessions, starting the week of September 7. During these sessions, the material covered during the previous week's lectures will be reviewed, and strategies for solving problems in organic chemistry will be explored. The times and locations of the discussion sections will be published on the Blackboard course website as soon as scheduling is finalized – click on the "I Need Help!!!" link. It is strongly recommended that you find one discussion session that fits nicely into your schedule, and attend it every week (not just before exams)!

Homework:

The exams in this class will ask you to solve problems. The best way to prepare for the exams, then, is to work as many practice problems as you possibly can! To encourage this good habit, two different types of homework will be assigned on a regular basis:

(1) Several homework problems from the textbook will be suggested at the beginning of just about every lecture. These assignments will also be posted on Blackboard – click on the "Textbook Assignments" link. The textbook problems will typically be related to the material discussed in lecture that day. You should attempt to work these problems after you study your lecture notes and the related sections of the textbook. Assigned problems from the textbook will not be collected or graded, but you'll want to

work through as many of them as possible so that you can develop the problem-solving skills you'll need in order to do well on the exams!!! Students who make an effort to work through and understand the textbook problems generally perform significantly better on exams than students who do not!!!

(2) Two graded homework problems from outside of the text will also be assigned each week (20 total over the course of the semester). These problems will be posted on the Blackboard course website every Monday and Thursday, and you will be responsible for downloading them from Blackboard. The deadline for submitting your answer to a graded homework problem will be 1 week after the problem is posted, at 3:00 p.m. In other words, a "Graded Homework Problem" posted on Monday must be turned in no later than 3:00 p.m. the following Monday. A "Graded Homework Problem" posted on Thursday must be turned in no later than 3:00 p.m. the following Thursday. Answers to all graded homework problems must be submitted to the collection box located outside of the Chemistry Lower Division Office (WEL 2.212). "Electronic" submission of homework via e-mail is not allowed – you must submit a "hard copy" of your homework to the collection box. **Homework must be turned in before the deadline, or it will not be graded!!!** Late homework, or homework deposited in the wrong slot of the collection box, will automatically receive a grade of 0. There will be no exceptions to this policy! It your responsibility to submit the homework on time and in the right place – no excuses for late homework will be accepted. Only the best 15 out of 20 homework grades will count in the calculation of your final course grade. **You may therefore miss up to 5 graded homework assignments without penalty.**

Each "Graded Homework Problem" will be worth 20 raw points. Your best 15 out of 20 homework grades will be added together, and this sum will be divided by 3 to give a final homework grade on a 100 point scale. Unlike exam grades (see below), your final homework grade will not be curved. The graded homework problems are worth 10% of your final course grade.

The "Graded Homework Problems" are "open book and open note". Although you are free to discuss the homework problems with other students in the class, the written work you submit should be your own. Be aware that students who "copy" their answers from other students without attempting to solve the problems on their own typically perform very poorly on exams, where this option is not available! **Since you will be graded on these homework problems, don't expect the TA's to do your homework for you in office hours!** To do well on the exams in this course, you will ultimately need to develop the ability to solve challenging problems on your own – a major objective in assigning these homework problems is to give you an opportunity to develop your independent problem solving skills. The TA's will be happy to answer general questions about the related chemistry, but they will not answer specific questions about the graded homework assignments.

Homework grades will be posted in Blackboard (click on the "My Grades" link). After the grade for a particular homework assignment has been posted, the graded homework will be placed in the "cubbyhole" shelves located outside WEL 2.224 (this location is subject to change) so that you can pick it up at your convenience. It is important that you pick up your graded homework on a regular basis – and in particular to check that the score recorded on the assignment matches the score recorded in Blackboard. If your grade was entered into the computer incorrectly, please bring your graded assignment to lecture or to office hours and show it to Dr. Bocknack. Once the correct score has been confirmed, the grade will be corrected in the computer.

If you see a grade of "0" entered in Blackboard, and you cannot find your graded assignment outside WEL 2.224, then it was not received by the TA for grading. This is typically because it was not turned in, it was turned in after the deadline, it was turned in to the wrong slot in the box, or it was turned in without a name or UTEID. There is no way that we can give you a grade for homework that was not received prior to the deadline, so if this happens, the assignment in question will be counted as one of your five "dropped" homework scores.

Evening Midterm Exams:

Three evening midterm exams will be given during the semester. These exams are scheduled from 7:00 to 9:00 p.m. on the Thursday evenings listed below. These dates were published in the Fall 2009 course schedule, so you should have been aware of them when you signed up to take this course! Each exam will be cumulative, and will test your understanding of all assigned textbook and lecture material covered from the beginning of the term through the previous Friday. Room and seating assignments for the exams will be posted in Blackboard and announced in lecture approximately one week before each exam.

Exam	**Coverage**	**Date** (exam time is 7–9 p.m.)
Midterm #1	All textbook & lecture material covered through Friday, 9/18	Thursday, 9/24
Midterm #2	All textbook & lecture material covered through Friday, 10/16	Thursday, 10/22
Midterm #3	All textbook & lecture material covered through Friday, 11/13	Thursday, 11/19

Please bring your valid UT ID card to all exams, since you will need to show it to the proctors when you turn in your exam. Unless otherwise announced, all exams will be "closed book", and you will not be allowed to use molecular models, calculators, books, or notes. Personal belongings (textbooks, notes, food and beverages, cell phones, PDA's, iPOD's, etc.) **WILL NOT** be permitted at your seat during the exam – you will be asked to place all personal belongings besides writing instruments and your photo ID in the aisles or at the front of the room before the exam begins.

Exams will commence promptly at the published starting time. Students arriving late **WILL NOT** be provided with extra time to complete the exam. Students arriving more than 15 minutes after the exam begins **WILL NOT** be allowed to take the exam!!! When time is called at the end of the exam, all writing must stop immediately, and all exams and answer sheets must be turned in promptly. A student who does not stop writing immediately when time is called will not have his or her exam graded, and a grade of 0 will automatically be recorded for the exam. "Writing" includes bubbling in the Scantron answer sheet – please bubble in Scantron answers as you work through the exam since you **WILL NOT** be allowed to bubble in answers after time is called! Instances of academic dishonesty will be handled according to university policy, and will likely result in failure of the course.

Each exam will be divided into two parts. Part I will be comprised of a series of multiple choice questions. Your answers to the Part I questions must be submitted on a Scantron "bubble" sheet (which will be provided), and you must use a #2 pencil to bubble in your answers. Only Part I answers submitted on the Scantron "bubble" sheet will be graded – the graders **WILL NOT** look at answers marked on the exam form itself. Part II will be comprised of a series of "free response" questions, and will be hand-graded by the TA's. Part II answers written in pencil or in pencil with ink overlay **WILL NOT** be eligible for regrades. Pages on which "whiteout" is used to cover mistakes **WILL NOT** be eligible for regrades. If you use ink, only blue or black ink is acceptable. Answers written in red ink **WILL NOT** be graded.

Each midterm exam will be worth a total of 300 raw points (this provides the graders with maximum flexibility in assigning partial credit). Your raw score (out of 300) will then be converted into a raw percentage (out of 100), which in turn will be converted into a standard T-score. **The T-score represents your "curved" grade on the exam, on a 100 point scale.** T-scores will be calculated using the following formula:

$$T = [((x - X)/s) \cdot 10] + 80$$

where
x = your raw percentage (out of 100)
X = the raw percentage average for the class = Σ x/N
N = number of exam scores recorded
s = standard deviation = $[\Sigma (x-X)^2/(N-1)]^{1/2}$

Use of standard T-scores allows an effective averaging of grades without introducing a bias in favor of tests with the greatest standard deviations. Since it is based on a normal (Gaussian) distribution, it generally represents the fairest way of grading. (Nearly all national exams such as the SAT, MCAT, and GRE use a similar form of Standard T-scores.)

*****Important Notice****** **In general, using T-scores increases everyone's grades compared to using absolute percentages. Nevertheless, we will keep track of your absolute percentage scores on every test. If your absolute percentage is ever higher than your T-score, we will use the absolute percentage score for your course grade calculation. Thus, if everyone does extremely well in this course, no grade will be lowered by using a curving system!**

Combined, the midterms will account for 55% of your overall course grade. **The lowest of your three midterm exam T-score grades will automatically be dropped. If you miss an exam for any reason, the missed exam will automatically be counted as the exam that is dropped.** Failure to take two of the midterm exams without a valid, documented excuse will automatically result in a failing grade for the course.

Since T-scores are used to calculate exam grades, it is not possible to take an exam late, after the rest of the class has taken it, even if you were ill or have another valid excuse. For the T-scores to be valid, everyone in the class needs to take exactly the same exam. Once the class takes an exam, its contents are essentially "public" knowledge. It is also unfair to the majority of students enrolled in the class if some students are allowed to take an exam late, and therefore have "extra" time to prepare.

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Exam File and Keys:

Exams from Dr. Bocknack's Fall 2008 and Spring 2009 CH 310M/318M classes will be made available on Blackboard (click on the "Exams" link and go to the "Old Exams" folder). The format of the exams this semester will be similar, although the exact material covered on each exam will likely differ (due to differences in the lecture schedule and the pace at which we move through the material). Answer keys to all graded materials (homework and exams) will also be posted on Blackboard, after the deadline for submitting the assignment has passed.

Conflict Exams:

Only those students having an excusable, documented conflict are eligible to take the conflict exams which will be offered before each midterm. An excusable conflict is another regularly scheduled class or lab (published in the Fall 2009 course schedule) which meets on Thursday evening between 7:00 and 9:00 p.m., an evening exam in another class scheduled at the same time as our exam (please be prepared to provide documentation, e.g. a copy of the syllabus from the other class), or a religious observance. **An organizational meeting or a job is not an excusable conflict!!!** If you have a job and you normally work on Thursday evening, plan now to change your work schedule so that you can be present for the midterm exams. Students who qualify to take the conflict exams must bring the conflict to the attention of Dr. Bocknack by filling out the appropriate paperwork at the Chemistry Lower Division Office (WEL 2.212) on or before Friday, September 11. The conflict exams will be given from 4:00 to 6:00 p.m. on the same date as the regular exam, in a location to be announced. Since we need to reserve

appropriate classroom space well in advance, September 11 is the deadline for all conflict exam requests for the semester! If you have a conflict for **ANY** of the midterm exams, you need to sign up for the conflict exam **BEFORE** September 11!!! Students who do not sign up for the conflict exams in advance **WILL NOT** be allowed to take the early exam!! Please check your assignment schedule for your other classes **NOW** to see if you have any conflicts with the exam schedule in the class so you can sign up for the conflict exam if necessary.

If you have an excusable conflict for the evening exams, and you also have an excusable conflict for the 4:00 to 6:00 exam, it will be necessary for you to take each exam even earlier in the day on Thursday. Students who find themselves in this situation will need to speak in person with Dr. Bocknack before September 11 to make appropriate arrangements.

Excused Absences:

If you miss one midterm exam, for any reason, the grade for that exam will automatically be dropped. It is not necessary to inform us of your absence, and you do not need to provide us with an excuse (in fact, we prefer that you NOT contact us with an excuse). Failure to take **two** midterm exams, however, will result in an automatic F (or, in the case of justifiable excuse, an X) being assigned in 310M/318M. Personal problems, family vacations, weddings, oversleeping, etc. are not valid reasons to receive an excused absence for an exam. If you do miss more than one exam, appropriate written documentation of a serious medical problem or family emergency must be provided in order to have the absence excused. Dr. Bocknack will contact students who miss more than one exam directly at their official university e-mail address with further instructions for providing this documentation. If an excused absence is granted, the T-score earned on the comprehensive final exam will be substituted for the missing exam score.

Final Examination:

The final exam is mandatory, and will be given at the time scheduled by the university registrar (Thursday, December 12, from 2:00–5:00 p.m., location to be announced). Since the final exam dates and times were published in the Fall 2009 course schedule, you should have been aware of the final exam schedule when you signed up to take this class, and planned your end of term travel accordingly! Due to grade submission deadlines and exam room seating capacity, it **WILL NOT** be possible for students enrolled in the TTh 12:30 section to take the final exam with another section of CH 310M/318M.

The final exam will be comprehensive. Material from the entire semester will be fair game. The final exam will be worth 400 raw points, and will account for 35% of your overall grade in the course. Standard T-scores will be calculated in the manner described above.

There will be no make-up or conflict exam for the final. Since final exams are scheduled according to class meeting times, and since you cannot enroll in two classes that meet at the same time, you cannot possibly have an academic conflict for the final exam. Failure to take the final exam at the scheduled time and place without an approved, documented excuse will automatically result in a failing grade for the course. If an extreme medical emergency or justifiable nonacademic excuse prevents you from taking the final exam at the scheduled time, the symbol “X” (incomplete) will be assigned when final grades are reported at the end of the semester. (The procedure for making up an incomplete will be worked out on an individual basis, but almost always requires a student to take the final exam when it is given at the end of the next long semester.) In general it is best for students to see a counselor in their Dean's Office regarding nonmedical excuses for missing the final.

Students with Special Needs:

Any student with a documented disability who requires academic accommodations should contact Services for Students with Disabilities at 471-6259 (voice) or 1-866-329-3986 (Video Phone) as soon as possible to request an official letter outlining authorized accommodations. This letter should be presented to the instructor as soon as it is available, and accommodations needed should be discussed in person at that time. Five business days before an exam it is the student's responsibility to remind the instructor of any testing accommodations that will be needed.

See following website for more information: **http://deanofstudents.utexas.edu/ssd/providing.php**

Grading Policy:

Your final course grade will be calculated as a weighted numerical average, on a 100 point scale, as described below. Remember, you can miss any one midterm exam for any reason, since only your best 2 out of 3 midterm exam T-scores will be used in the calculation of your final weighted numerical average. Also remember that only the best 15 out of 20 graded homework scores will count.

Weight	Graded Item (max. score = 100)
35.0%	Final Exam Grade
27.5%	Highest Midterm Grade
27.5%	Second Highest Midterm Grade
10.0%	Graded Homework

Remember, if your raw percentage score for any exam is higher than your T-score for that exam, the raw percentage score will be used for the calculation of your grade. Also note that the T-score for each exam represents your curved grade for that exam. Since individual exam grades are curved, no additional curve will be applied at the end of the semester. Finally, remember that homework grades will not be curved.

The following conversion table will be used to determine final course letter grades:

A	$93.00 \leq T$
A-	$90.00 \leq T \leq 92.99$
B+	$87.00 \leq T$ 89.99
B	$83.00 \leq T \leq 86.99$
B-	$80.00 \leq T \leq 82.99$
C+	$77.00 \leq T \leq 79.99$
C	$73.00 \leq T \leq 76.99$
C-	$70.00 \leq T \leq 72.99$
D+	$67.00 \leq T \leq 69.99$
D	$63.00 \leq T \leq 66.99$
D-	$60.00 \leq T \leq 62.99$
F	$T < 60.00$

Please note that letter grades in this course are based entirely on demonstrated performance on the exams and graded homework. I will only look at these numbers at the end of the term. I cannot and will not consider personal problems or other nonacademic issues which may have impacted your academic performance (trained counselors are available in each college's dean's office to assist with nonacademic issues). I will not "give" you a grade at the end of the course. You will earn your grade, and I will report the grade that you earn to the registrar. Whereas effort probably counted in your previous life ("So what if

you struck out, you took a good swing at the ball!"), in the cruel "real" world, only accomplishment matters. It may seem unfair, but unfortunately that's the way it is. Grade boundaries do need to be established somewhere, and the unavoidable consequence is that some students end up just "a point" (or even a few hundredths of a point) away from a higher grade. **Since everyone is graded according to exactly the same standards, for reasons of fairness, the policy in this course is to NOT adjust students' grades in such circumstances.** Final grades reported according to the scheme described above will indeed be final, and will only be adjusted in the event that a calculation error was made. Requests to raise borderline grades for any other reason will not be considered!!!

Regrade Policy:

Requests for midterm exam regrades must be submitted in writing to the Lower Division Office (WEL 2.212) within one week after the return of the graded material (the specific deadline for each exam will be announced in lecture and on Blackboard). The regrade procedure is outlined below. Students who do not follow these instructions will have their regrade request denied!

For simple errors in adding up points or in recording of exam grades (be sure to check Blackboard to confirm that each exam score was recorded correctly!), it is not necessary to follow the formal regrade procedure described below. Simply send a message to the course e-mail account (**carbocation310@yahoo.com**) describing the problem. Be sure to include the word "GRADING" in the subject line. You will be contacted with further instructions.

Part I of each exam is not eligible for regrades. Only answers recorded on the Scantron answer sheet will be graded. The correct responses to the Part I questions will be included in the answer key that will be posted on Blackboard once exam scores have been uploaded to the grade center. If you feel that a Part II question was graded incorrectly, please follow the steps outlined below.

1. Regrades WILL NOT be considered for:
   a) Part II answers written in pencil, or in ink that is not blue or black.
   b) Pages on which "whiteout" is used to cover mistakes.
   c) On questions that refer to "see back of page," or that give similar instructions to graders.
   d) For less than a 5 point change in the exam raw score, except for mistakes in addition.
2. If you submit a regrade request, we will review all of Part II, and not just the problem in question. Although it rarely happens, this could potentially result in a lower score, so consider your options carefully before requesting a regrade.
3. Regrade requests must be submitted in writing at the Lower Division Office. The staff will provide you with the appropriate paperwork. You'll need to attach this form to the front of your exam. The perceived problem must be explained clearly and concisely. Do not write directly on your exam, as altering your graded exam will nullify your request for a regrade. **Submission of an altered exam for a regrade is considered to be a violation of this University's academic integrity policies and will be treated as such.** If you are caught cheating in this manner, the likely result will be automatic failure of this class, and possibly expulsion from the University. Please be aware that a random sample of exams is photocopied before exams are returned to students.
4. To demonstrate that you have reviewed the "official" answer key, please attach a copy of the relevant page(s) from the posted answer key to your regrade request form. Answer keys will be posted on Blackboard – click on the "Exams" link, and then go to the "Fall 2009 Exam Answer Keys" folder.
5. The specific deadline to submit regrade requests for each exam will be announced in lecture and posted in Blackboard. Requests for regrades will not be accepted after the announced deadline, **NO EXCEPTIONS**.

There will be no regrades possible for the final exam – there is simply not enough time to allow you to pick up and review your graded final exam before the registrar's grade submission deadline**.** Dr.

Bocknack will look carefully at all "borderline" exams to determine if each exam was graded correctly and according to his instructions.

There is no formal regrade procedure in place for the "Graded Homework Problems." If you have a question about how a homework assignment was graded, please visit Dr. Bocknack or a TA during scheduled office hours.

Letters of Recommendation:

I am happy to provide a recommendation for a student, if I feel that I can provide a strongly positive evaluation that will be helpful to the application. After completion of the course, requests for letters of recommendation will be considered only from students who have earned a final letter grade of A. These requests should be directed to Dr. Bocknack **IN PERSON** (not via e-mail or over the telephone).

Graduate/professional schools and scholarship committees generally prefer that students request recommendations from instructors who know them very well! Please bear in mind that well over 800 students are enrolled in the 3 sections of CH 310M/318M that I am teaching during the Fall 2009 semester! For this reason, letters of recommendation that I write will only discuss your final course grade, your final ranking in the class, and your level of participation as judged by completion of the graded homework problems and all three midterm exams. I generally only respond to questions on forms that may be answered based on earned grades.

Since the people receiving a recommendation letter can judge your academic performance based on your transcript, a letter that is limited in scope to the areas mentioned above is generally not very helpful to them! For this reason, if you would like me to provide a letter that includes additional comments about your background (i.e. a letter that might actually help your cause), you will need to make an effort to introduce yourself to me by visiting my office hours several times throughout the semester. If you won't need a letter from me for another year or two, you'll also need to keep in touch after the course ends, so I don't forget who you are. Once again, if I do not know you well through interactions outside of lecture, I cannot (and will not) comment on aspects of your background outside of your grades! If I do not even know your name when you approach me to write a letter, it would probably be better for you to ask somebody else to provide you with a recommendation!

If a recommendation form must be submitted along with the letter, please be sure to sign the form in the area that indicates that you waive your right to view the letter – I will not provide a recommendation unless it is confidential. You should also be prepared to provide me with a brief resume, a short statement indicating what you are applying for and why, and an envelope addressed to the recipient of the letter (with postage included) if electronic submission of the letter is not possible.

Academic Dishonesty:

I expect each of you to conduct yourselves honorably. Students who violate the University rules on scholastic dishonesty are subject to disciplinary penalties including the possibility of failure in the course and dismissal from the University. ***The university policies on scholastic dishonesty will be strictly enforced.***

How to Do Well in Organic Chemistry: IMPORTANT, SO READ CAREFULLY!!!

Organic chemistry is conceptually very different from other subjects you may have encountered, and can only be mastered through very disciplined study. It will be virtually impossible to do well in this class if you do not attend the lectures faithfully, prepared to learn. Study the material presented in each lecture as soon as possible (preferably right after lecture), do as may of the assigned problems as possible (and even more, if you have time), and try to relate new concepts and ideas to what you have already learned. Knowledge in organic chemistry is cumulative. You have to learn how concepts relate to each other, because then the larger picture is easier to understand. Rote memorization will typically not lead to success in this course!

In general, you should expect to spend at least 4 hours of study time outside of class for every hour spent in lecture. Given the large quantity of information that we will cover in a relatively short amount of time, it is critical that you make a DAILY effort to study and work problems. Cramming only before exams is not a recipe for success in this class! Most "A" students employ the following study strategies:

1. **Skim the textbook material before a topic is covered in lecture.** I will post the suggested "preview" reading on the announcements slide at the beginning of each lecture, and also on the "Textbook Assignments" page in Blackboard. Don't attempt to learn everything at this stage; rather, try to get a general sense of what the important topics are. Even a brief prior exposure to the main ideas will help to focus your attention in lecture to make it a more worthwhile learning experience.

2. **Listen carefully in lecture.** Most lectures will be given using a "chalk talk" format, meaning that I will write out structures and important points as I lecture. At some point after the lecture (typically within a day or two; possibly longer during busy periods) I will post scanned images of the "slides" that I generate on the Blackboard website. Since you'll have access to these lecture slides, you shouldn't have to worry about frantically copying everything that appears on the screen. Rather, make an effort to listen, and pay close attention, because unless otherwise indicated, you will be expected to understand all of the material presented in lecture. Jot down any questions or points for clarification as they arise, so you don't forget them. I view the lectures as being the most important component of the course. The textbook is best used as a supplement to your lecture notes, and as a convenient source of practice problems. We will occasionally cover material in lecture that is not presented in your textbook.

3. **Take good notes during lecture, and review them as soon as possible after lecture**, preferably later the same day. Although "slides" will eventually be posted, it may take several days, so I strongly discourage students from relying only on the posted notes! Don't just stare at your notes as you study, however. You should study actively with pen or pencil in hand. The act of rewriting and summarizing your notes will help you to reinforce your understanding of the important concepts. When we begin to discuss organic reaction mechanisms, you'll be in trouble unless you spend significant time on your own, learning how to write them! As you study your notes, refer to the relevant sections of the textbook for clarification or alternative explanations of the important concepts. Once again, jot down questions as they arise, since you have to realize what you don't understand before you can seek help!

4. **After you spend no more than an hour or two studying the concepts presented in a particular lecture, TAKE A BREAK!!!** Spend some time studying for a different class, go to the gym to exercise your body, or relax for a while. Research has shown that long term recall is facilitated when information is learned in small chunks. Your brain needs time to process the information it has taken in. Give the part of your brain that processes organic chemistry a rest and allow it some time to process what it has learned subconsciously.

5. **After your break (for instance, the next day), test your understanding of the concepts you studied by working related homework problems.** Working lots and lots of problems is the best

way to prepare for exams in this course. Think about it – the exams will ask you to solve problems, and the only way you will develop the skills necessary to do this is with extensive practice!!! **The TA's will spend a considerable amount of time during the optional discussion sessions discussing strategies for solving organic chemistry problems.** The problems that I suggest at the beginning of each lecture (also posted on Blackboard) will typically be related to the material that I expect to discuss that day in lecture. Do not consult the study guide/answer key until you have spent considerable time (at least 15 minutes) attempting to work through a problem on your own. Simply looking at answers developed by someone else will generally not lead to understanding that is sufficient for adequate performance on exams. If you get completely stuck, you haven't mastered the key concepts yet. Go back to your notes and the text to study some more on your own. If you are still stuck, visit office hours to get help!

6. **Don't be afraid to ask for help if you need it!** We are here to help you learn organic chemistry. If you are struggling, we will try our best to help you figure out what you are doing wrong, and what you can do to fix the problem. The only way we can help you is if you ask for help, however! Admitting that you need help in a challenging subject like organic chemistry is not a sign of weakness – rather it is a sign of maturity. Please take advantage of all of the discussion sessions and office hours that we will make available to you, throughout the semester (not just before exams).

7. **Students who find themselves in trouble generally end up there because they fall behind.** Organic chemistry is a cumulative subject. We will encounter a tremendous amount of material this semester, and a thorough understanding of the early material will be critical for understanding more advanced topics. For this reason, cramming right before exams is generally not an effective strategy for learning organic chemistry. You simply won't have enough time to learn the material at the level you will be expected to understand it, and you certainly won't have enough time to work through lots and lots of practice problems. Remember, it is better to keep up than to catch up!

Tentative Schedule of Lecture Topics and Textbook Readings

We will cover the material in Chapters 1 through 11 (excluding selected sections) during this course. The order in which we will cover the material is reflected below, although the dates are subject to change. It is recommended that you skim the relevant textbook sections before lecture. You **WILL** be responsible for the textbook sections highlighted in **BOLD** below, although we **WILL NOT** discuss this material in detail during lecture! Homework deadlines are subject to change.

Lect	Date	Tentative Lecture Topics	Text Sections
1	Th 8/27	Overview of Course; Historical Perspective	
	M 8/31	**OFFICE HOURS BEGIN TODAY!!!**	
2	Tu 9/1	Intro to Constitutional Isomers; Review of Lewis Structures and VSEPR Theory	**1.1**, 1.2, 1.4
3	Th 9/3	Electronegativity; Polar and Nonpolar Molecules; Resonance **HW#01 DUE @ 3:00 PM**	1.5, 1.8
	M 9/7	**LABOR DAY HOLIDAY – NO CLASSES**	
4	Tu 9/8	Valence Bond Theory and Hybridization; Functional Groups **HW#02 DUE @ 3:00 PM; TA DISCUSSION SESSIONS BEGIN TODAY!!!**	1.3, **1.6**, 1.7, **1.9**, **1.10**
5	Th 9/10	Line-Angle Structures; Degree of Substitution; Constitutional Isomers Revisited **HW#03 DUE @ 3:00 PM**	2.1, 2.2
	F 9/11	**DEADLINE TO SIGN UP FOR ANY MIDTERM'S CONFLICT EXAM!!!**	
	M 9/14	**HW#04 DUE @ 3:00 PM**	
6	Tu 9/15	Nomenclature and Conformational Analysis of Acyclic Alkanes	2.3, 2.5A
7	Th 9/17	Conformational Analysis of Acyclic Alkanes (continued); Nomenclature and Stereochemistry of Cycloalkanes **END MIDTERM EXAM #1 COVERAGE** **HW#05 DUE @ 3:00 PM**	2.4, 2.5A, 2.6
	M 9/21	**HW#06 DUE @ 3:00 PM**	
8	Tu 9/22	Cycloalkane Conformations	2.5B
9	Th 9/24	Physical and Chemical Properties of Alkanes; Intro to Stereochemistry; Chirality **MIDTERM EXAM #1, 7:00-9:00 PM, LOCATIONS TBA**	**2.7**, **2.8**, **2.9**, 3.1, 3.2
10	Tu 9/29	Midterm Exam #1 Results; Optical Activity: (*R*)/(*S*) Configurations of Chiral Centers: Diastereomers	3.3, 3.4, 3.5, 3.7
11	Th 10/1	*Meso* Compounds; Organic Reaction Mechanisms and the Curved Arrow Formalism; Intro to Acids and Bases **HW#07 DUE @ 3:00 PM**	3.6, **3.8**, 4.1, 4.2, 4.7
	M 10/5	**HW#08 DUE @ 3:00 PM**	
12	Tu 10/6	Acid-Base Equilibria; K_a and pK_a; Structural Factors that Influence Acid/Base Strength	4.3, 4.4, 4.6
13	Th 10/8	Structural Factors that Influence Acid/Base Strength; Acid-Base Chemistry in the Resolution of Enantiomers; Intro to Alkenes; Unsaturation Number **HW#09 DUE @ 3:00 PM**	4.6, 3.9A, 5.1
	M 10/12	**HW#10 DUE @ 3:00 PM**	
14	Tu 10/13	Nomenclature and Stereochemistry of Alkenes; Electrophilic Addition Reactions of Alkenes – Addition of HX	5.2, 5.3, 6.1, 6.3A
15	Th 10/15	Regioselectivity and Stereoselectivity of HX Addition to Alkenes **END MIDTERM EXAM #2 COVERAGE** **HW#11 DUE @ 3:00 PM**	4.5, 6.2

Lect	Date	Tentative Lecture Topics	Text Sections
	M 10/19	**HW#12 DUE @ 3:00 PM**	
16	Tu 10/20	Hydration of Alkenes; Addition of X_2 to Alkenes; Halohydrin/Haloether Formation	6.3B, 6.3C, 6.3D, 6.3E
	W 10/21	**"Q" DROP DEADLINE**	
17	Th 10/22	Oxymercuration-Reduction of Alkenes; Hydroboration-Oxidation of Alkenes; Ozonolysis of Alkenes **MIDTERM EXAM #2, 7:00-9:00 PM, LOCATIONS TBA**	6.3F, 6.4, 6.5B
18	Tu 10/27	Midterm Exam #2 Results; Dihydroxlyation of Alkenes; Catalytic Reduction of Alkenes; Structure and Nomenclature of Alkynes	6.5A, 6.5, 6.7, 7.1, 7.2, 7.3
19	Th 10/29	Acidity of Terminal Alkynes; Preparation of Alkynes; Hydration Reactions of Alkynes **HW#13 DUE @ 3:00 PM**	7.4, 7.5, **7.6**, 7.7
	M 11/2	**HW#14 DUE @ 3:00 PM**	
20	Tu 11/3	Reduction Reactions of Alkynes; Synthesis Problems in Organic Chemistry; Introduction to Radical Halogenation of Alkanes	7.8, 7.9, **8.1**, **8.2**, **8.3**, 8.4
21	Th 11/5	Regioselectivity and Stereoselectivity of Radical Halogenation **HW#15 DUE @ 3:00 PM**	8.5
	M 11/9	**HW#16 DUE @ 3:00 PM**	
22	Tu 11/10	Allylic Halogenation of Alkenes; The "Peroxide Effect" in the Addition of HBr to Alkenes; Intro to Nucleophilic Substitution Reactions of Alkyl Halides	8.6, **8.7**, 8.8, 9.1, 9.2
23	Th 11/12	Nucleophilic Substitution Reactions of Alkyl Halides (continued…) **END MIDTERM EXAM #3 COVERAGE** **HW#17 DUE @ 3:00 PM**	9.3, 9.4
	M 11/16	β-Elimination Reactions of Alkyl Halides **HW#18 DUE @ 3:00 PM**	9.5, 9.6, 9.7
24	Tu 11/17	β-Elimination Reactions of Alkyl Halides; Nucleophilic Substitution vs. β-Elimination	9.5, 9.6, 9.7, 9.8
25	Th 11/19	Nucleophilic Substitution vs. β-Elimination (continued); Introduction to Alcohols **MIDTERM EXAM #3, 7:00-9:00 PM, LOCATIONS TBA**	9.8, **9.9**, **10.1**, **10.2**, 10.3, 10.4
26	Tu 11/24	Midterm Exam #3 Results; Nucleophilic Substitution Reactions of Alcohols	10.5
	W 11/25	**NO OFFICE HOURS TODAY!!!**	
	Th 11/26	**NO CLASS TODAY - HAPPY THANKSGIVING!!!**	
	F 11/27	**NO OFFICE HOURS TODAY!!!**	
	M 11/30	**HW#19 DUE @ 3:00 PM**	
27	Tu 12/1	β-Elimination Reactions of Alcohols; Oxidation of Alcohols; Preparation of Ethers	10.6, 10.7, 10.8, **10.9**, **11.1**, **11.2**, **11.3**, 11.4, 11.5, 11.6
28	Th 12/3	Reactions of Ethers; Preparation and Reactions of Epoxides **HW#20 DUE @ 3:00 PM**	11.7, 11.8, 11.9, **11.10**
	F 12/4	**LAST DAY OF CLASSES**	
	Th 12/10	**FINAL EXAMINATION, 2:00-5:00 PM, LOCATIONS TBA**	