

## Syllabus for Chemistry 320N, Spring 2013

**Class:** Introductory Organic Chemistry, Part II  
Welch 2.224  
TTh 12:30 – 2:00pm  
Unique #: 52375

**Instructor:** Eric V. Anslyn  
NHB 5.114  
Office Hours – Monday 1:45-2:45pm, and Thursday 2:00pm – 3:00pm.  
In the common area outside of NHB 5.202  
[anslyn@austin.utexas.edu](mailto:anslyn@austin.utexas.edu) – The instructor's and TAs' e-mails are to be used only for organizational questions about the class. We will not respond to e-mails about questions on organic chemistry, material on the exams, homework answers, or questions about the chemical content of the notes. You must go to office hours and recitation sessions or inquire on the course Facebook page to get chemistry questions answered.

**Web Site:**

<http://courses.cm.utexas.edu/eanslyn/ch320n/>

Lecture TA notes, syllabus, old exams (and keys only if we have them), exam keys for this class (after administering the exams), course material, and other stuff to help you out.

<http://www.facebook.com/AnslynCH320N>

You can post questions related to lectures, exams, homeworks, etc. on the course Facebook page. It will be checked daily.

**Teaching Assistants (TAs):**

Shagufta Shabbir [s.shagufta@cm.utexas.edu](mailto:s.shagufta@cm.utexas.edu)  
Office hours: Wednesday 3-4pm Cubicle A

Brette Chapin [bmchapin@utexas.edu](mailto:bmchapin@utexas.edu)  
Office hours: Friday 11am-12pm Cubicle B

Katharine Diehl [dkathari@utexas.edu](mailto:dkathari@utexas.edu)  
Office hours: Thursday 3-4pm Cubicle A

Alex Gade [alexgade@utexas.edu](mailto:alexgade@utexas.edu)  
Answers Facebook questions

Hannah Jo, [hhjo@utexas.edu](mailto:hhjo@utexas.edu)  
Office hours: Monday 9-10am Cubicle A

John Lin [chlin@utexas.edu](mailto:chlin@utexas.edu)  
Office hours: Tuesday 10-11am Cubicle A

All office hours will be held on the 2<sup>nd</sup> floor of Welch, 2.306.

**Text: "Organic Chemistry" by Brown, Foote, Iverson, and Anslyn, 6th Edition**

Please also purchase Student Study Guide and Solutions Manual.

**Honor Code:**

The core values of the University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness and respect toward peers and community.

**Attendance:** Attendance in class is strongly recommended but not mandatory (no attendance will be taken). However, you will likely not do very well on the exams unless you attend class. The instructor reserves the right to interact with you in front of the class if you are sleeping. In addition, I routinely ask questions of individuals in the class during lecture. Questions from the audience are highly encouraged.

Please turn off all cell phones during class. If your cell phone rings during class, I will take it to the front of the classroom until after class.

**Recitation Sessions:** There are also 3 weekly recitation/review sessions held by the TA's, each TA alternating every other week. These are optional, but highly, *highly* recommended! Review sessions begin the second week of class. These will help you a lot! If you are struggling a lot, or even just a little, or you just want to learn more, you should take advantage of these recitation sessions. Each session will start with practicing the kinds of problems that we put on exams, then lecturing on the problems, and then taking questions.

Tuesdays 3-4pm William C. Hogg 1.120 – John and Hannah

Wednesdays 4-5pm Welch 2.246 – Shagufta and Brette

Thursdays 5-6pm Welch 1.308 – Katharine and Alex

**Section changes, adds, and drops:** All registration matters are handled by the Undergraduate Office (Welch 2.212) and not by me. The University rules are stringent with regard to drops, and I do not make exceptions. In general they are as follows, but you **must** check the policy for yourself (don't rely on what is typed below; it is a paraphrasing of the University rules).

The student must remain in conformity with the quantity of work rule and must obtain all required approvals. International students must obtain written permission from the International Office, in addition to other required approvals, to drop a course. On the recommendation of the instructor, and with the approval of the student's academic dean, a student may be required to drop a course at any time because of neglect or for lack of preparation.

Subject to the conditions below, an undergraduate may drop this course through the twelfth class day, January 30<sup>th</sup>, 2013. The student may initiate the drop through the registration system. However, if a drop request is not accepted by the registration system, the student should consult the department that offers the course for more information.

The following rules apply from the thirteenth class day through the twentieth class day of a long-session semester, April 1<sup>st</sup>, 2013. To drop a course for academic reasons during this period, the student must have the approval of his or her dean. In some colleges and schools, the approval of the student's adviser is also required; each student must consult the regulations of his or her college or school. If the student is allowed to drop the course, the symbol Q appears on his or her academic record to indicate a drop without academic penalty.

After the deadline, April 1<sup>st</sup>, 2013, to drop a class for academic reasons has passed there are only two possible ways for a student to drop a class. One way is in the case of urgent, substantiated, nonacademic reasons, which must be approved by the student's dean. Approved nonacademic drops that occur during this period are not counted toward the six-drop limit. The other way is for the student to seek approval to use the One-Time-Exception. Approved One-Time-Exception drops that occur during this period are counted toward the six-drop limit. To seek either type of drop within this period a student must request the drop forms from the student's dean's office by the last class day, May 3<sup>rd</sup>, 2013, and the forms must be returned to the student's dean's office before the first day of final exams, May 8<sup>th</sup>, 2013. Dropping using the One-Time-Exception requires the signature of the instructor, and will not be permitted if final grades have already been assigned, if there are pending investigations of scholastic dishonesty, or if the student has not completed two long semesters at the University. Withdrawal will be permitted regardless of the student's grade in the course and without instructor permission, but will not be allowed for pending cases of dishonesty.

**Courses Info:** CH 320 and 328 may not both be counted. 320N course is for premedical sciences, pre-dental, life sciences, and pharmacy majors.

**Pre- and Co requisites:** CH 204 or 317 with a grade of C- or better, CH 310M with a grade of C- or better, and credit or registration for CH 210C or 220C.

**Incompletes:** An incomplete (X) is a temporary delay in reporting the final course grade. An X can be assigned for students that miss the final exam due to illness or other imperative nonacademic reasons. You will be required to have a written medical excuse signed by the person that treated you if the reason for missing the final is due to illness. An X may be assigned if a student has not completed other required assignments, but only if the student has a passing grade on the other assignments. The reason for assigning an X due to having a low grade is not allowed.

**Homework:** Homework problems are assigned for each Chapter (see last page of this syllabus). These assignments will be turned in after the last lecture dealing with the Chapter. For example, when we are done with Chapter 15, the homework for Chapter 15 will be turned in on the next class. You must keep track of when the homework is due. This assures that you are keeping up in the class and attending. NO LATE HOMEWORK IS EVER-EVER ACCEPTED! If you plan to study from the homework, please copy it before passing it in.

The homework will be given a grade of +, -, or 0. A + means that you did all the required problems, a - means that you did not get to all these problems, and a 0 means you did not turn in the homework. To not get a 0, the homework must be turned in on time and in class. The tally of these +, -, and 0 will be used to help or hinder your grade if your grade is borderline as follows. If you are 0.50 T-score points (see below) from a grade cut off (high or low), then the homework tally will be examined. Mostly +'s will boost your grade, mostly -'s will not affect the grade, whereas mostly 0's will drop your grade. Indeed, your grade can be dropped based upon not turning in homework!

You will note when taking the exams that about 1/3 of the test is directly out of the toughest homework problems, 1/3 is similar to the notes, and 1/3 makes you think. Therefore it is highly recommended that you do the homework and study your notes. Do as much homework as possible, especially the advanced problems. Working out the homework (not copying the answers from the answer key) will prepare you for the exams.

**EXAMS AND GRADING:** The final grade will be based upon the grades from two midterms and one final exam. Two midterms out of the three are mandatory. The lowest midterm (or one missed midterm) will be dropped from your final average. The final exam cannot be dropped. Failure to complete at least two midterms will result in a grade of F, as will missing the final exam. No make-ups will be held for the final exam regardless of the reason. Please arrange your schedule accordingly. Two midterm scores will comprise 60% of your grade, with the final making up the other 40%. Due to the nature of the course, the final exam is inherently comprehensive and no area is intentionally stressed. A valid UT ID must be brought to each examination. Questions are to be answered on the exam pages only.

The only items allowed at your seat are pencils, pens, and model sets; no calculators or cell phones are allowed. If you are caught with a cell phone on your desk during the exam you will automatically receive a letter grade of F on that exam. Just to reiterate, the following are not allowed at your desk at an exam: any kind of paper, baseball caps cannot be worn, electronic devices of any kind, food, large jackets or sweaters, backpacks, etc.

Early exams (on the same dates as below but from 5:00-7:00pm) are given only for individuals that have classes during the regularly scheduled exam times. If you work during these times, please ask your employer to give you these evenings off. If you cannot get these evenings off, you need to get a notarized letter from your employer and show it within the first two weeks of class and register with us for the early exams. To take an early exam due to class scheduling conflicts, you must show documentation to the Professor, and be registered for early exams, within the first two weeks of class. You will not be allowed to leave the exam room earlier than 7:00pm.

The three regularly scheduled examinations will be on the following dates from 7:00-9:00pm. Be aware of the classroom listed based upon the first letter of your last name. Sit in every other seat, not next to anyone.

Feb. 12<sup>th</sup>:       A-K report to Welch 2.224  
                  L-R report to Welch 1.308  
                  S-Z report to Welch 1.316  
                  \*Early exams for those previously approved will be 5:00-7:00pm

March 19<sup>th</sup>:       A-K report to Welch 2.224  
                  L-R report to Welch 1.308  
                  S-Z report to Welch 1.316

\*Early exams for those previously approved will be 5:00-7:00pm

April 16<sup>th</sup>:  
A-K report to Welch 2.224  
L-R report to Welch 1.308  
S-Z report to Welch 1.316

\*Early exams for those previously approved will be 5:00-7:00pm

Final exam is on Saturday May 11th from 7:00-10:00pm (please confirm for yourself later in the semester)

The average on the exams is often between 45 and 60%. I aim for an average of 50 to 55%. This allows a large distribution of grades, and more clearly delineates boundaries between A, B, C, D, and F. Expect the exams to be very challenging but fair.

**T-Scoring:**

The raw scores earned on each of the exams in this course will be converted to Standard T-Scores. The Standard T-Score is computed as follows:

$$T = \left[ \frac{x - X}{s} \cdot 10 \right] + 80$$

Where :

*x* = your raw test score

$$X = \text{the class mean score} = \sum_{i=1}^N \frac{x_i}{N}$$

*N* = the number of test scores

$$s = \text{the standard deviation} = \left[ \frac{\sum_{i=1}^N (x_i - X)^2}{(N - 1)} \right]^{1/2}$$

Using 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)

Your final course grade will be calculated as 30% of your best midterm T-score, 30% of your second best midterm T-score and 40% of your final exam T-score. There will be three midterms during the semester, so this means that your lowest midterm exam T-score will be dropped OR you will be able to miss one midterm for any reason with no penalty. The following conversion table will be used to calculated final course grades:

T-Score	
93.0000 < T	.....A
90.0000 < T < 93.0000	.....A-
87.0000 < T < 90.0000	.....B+
83.0000 < T < 87.0000	.....B
80.0000 < T < 83.0000	.....B-
77.0000 < T < 80.0000	.....C+
73.0000 < T < 77.0000	.....C
70.0000 < T < 73.0000	.....C-
67.0000 < T < 70.0000	.....D+
63.0000 < T < 67.0000	.....D
60.0000 < T < 63.0000	.....D-
T < 60.0000	.....F

NOTE: WE DO NOT ROUND SCORES. AN 89.92 IS ENTERED AS 89.92, NOT 90.00. When the instructor makes the final grades in the class, there will also be no rounding of grades. Missing a grade

cut off by any fraction of an amount is a miss!

In general, using T-scores increases everyone's grades compared to using absolute percentages. Nevertheless, we will keep track of your percentage scores on every test. If the percentage scores are ever higher than your T-score, we will use the 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!

**Regrade Policy.** If you use a pencil or erasable ink to take your exam, we will not allow a regrade. You must use permanent ink if you anticipate wanting a regrade. Any exams to be regraded must be presented to Eric Anslyn within one week of the return of the exams. The entire exam will be regraded by Eric Anslyn (not the graders, you must choose who you believe to be tougher or more alert!). You cannot discuss the exam with Eric Anslyn at all prior to the regrade. A higher or lower score can result, but a score will only be changed if it differs by 3 percentage points or more from the original score. Complaints about the final exam grading must be presented within one day of the return of the final exam. Therefore, if you anticipate a complaint, you must be diligent in following the progress of the graders.

**Picking up Old Exams:** We will notify you in class when the exams have been finished being graded, after which you will be able to pick up your exam at the undergraduate office windows (Welch 2.212). If you miss getting your exam back on that specific day that we notified you in class, you will still be able to pick it up at the undergraduate office windows, however, you must fill out an "Exam Request Form", available at the undergraduate office. Students will fill out this form and leave it in a locked box in the hallway. Each day the forms will be collected, and exams can be picked up the next day at the office windows from 7:30a to 5:00p. Students have a one-business-day turn-around period, but will have the convenience of dropping by anytime they would like for the exam.

**Students with Special Needs:** Any student needing extra time, special environment, aids, etc. for exams is required to notify TA or the instructor in writing at least one week before the examinations. A letter of documentation of special need must be furnished by the Dean of Student's office before the first exam. Failure to meet these deadlines may result in our inability to meet the special need. For more information, contact the Office of the Dean of Students at 471-6259 or 471-4641.

**Scholastic Dishonesty:** Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of an F in the course, and/or dismissal from the University. Because such dishonesty harms the individual, all students, and the integrity of the University, policies of scholastic dishonesty will be strictly enforced.

**Traveling:** I will miss class on the following dates, and the Dr. Shabbir will cover each class that I miss.

January 29<sup>th</sup>

February 12<sup>th</sup>

March 5<sup>th</sup>

March 7<sup>th</sup>

(Spring break, March 11<sup>th</sup> to 15<sup>th</sup>)

April 18<sup>th</sup>

**The Level of Difficulty of the Class:** This course is known to be very hard. The pace is fast, and it is imperative that you remain current with the material. Do not get behind, this is fatal! The biggest problem is absorbing all the material. Please feel free to ask questions in class, to correct the instructor in class, and to visit the Professor and TA office hours. Eric Anslyn sits in his office during his office hours to help, please take advantage of this offer. He will be available to help you, as will the TAs for this course and your laboratory TAs.

**Course Philosophy:** Organic Chemistry is truly the chemistry of life. It is also, however, the most common chemistry used in the manufacturing of drugs, clothing, plastics, explosives, fuels, and almost all chemical items routinely used in modern life. The goal of this course is to give the student a firm foundation from which to understand chemical transformations, such that specialized courses in polymers and biochemistry can be easily approached, and in order that the common chemical problems confronting society can be understood from a rational and educated basis.

**Homework Assignments:** Remember, the homework is meant to prepare you for an exam, and we use the homework scores to adjust grades if your grade ends up being borderline (see above). The following is a list of all the problems that we feel are relevant to the material that will be covered. This is the first list of homework for each chapter. The second list is the homework that is due and must be turned in on the day after a chapter is finished.

Chapter 15: 7, 8, 11, 12, 17, 18, 21, 24, 25

Chapter 16: 14, 15, 19, 21, 22, 23, 24, 29, 30, 32, 33, 36-39, 41, 43, 45, 46, 50, 51, 54, 55, 57, 59, 61, 62, 65, 66, 68, 74, 75, 76, 79

Chapter 17: 7-9, 12, 14, 18, 19, 21, 22, 24, 25, 27, 29, 30, 32, 33, 37-39, 41, 42, 44, 47, 48, 49, 53

Chapter 18: 12, 13, 19, 20, 22, 23, 25, 27, 29, 32, 35, 37 – 40, 43, 46 – 50, 52, 56, 58, 61, 62, 64, 65, 69, 70

Chapter 19: 18, 19, 22 – 24, 26, 27, 29, 31, 33, 34, 36, 37, 39, 41, 43, 44, 46, 49, 50, 51, 53, 58, 60, 65, 68, 74, 76, 77, 82

Chapter 20: 14-27, 30, 33, 38, 43, 53

Chapter 21: 8, 9, 12, 14, 15-17, 32, 33, 35, 36, 40, 43-45, 51, 56, 59, 61, 63

Chapter 22: 7 – 9, 14-22, 28, 32, 35, 37, 40, 45, 49, 52, 54, 57, 61, 63

Chapter 23: 16 – 18, 22, 25, 26, 27, 30, 32, 34, 37, 38, 42, 45-50, 54, 56, 59, 60, 65, 69

Chapter 24: 34, 35

Chapter 25: 8, 10, 11, 13, 15, 21, 24, 26, 32, 36, 38, 45, 49

Chapter 26: 2-16

Chapter 27: 26-28, 31-35, 51, 52

### **How to Succeed in Chem. 320N**

If you were happy with your grade in CH320M/CH328M: Keep up the good work!

If you were not satisfied with your grade in CH320M/CH328M: You will have to change something! If you do not approach this class differently, then the result will probably be the same. So here is my advice.

The following is a list of things you should do:

1. Never get behind, never get behind, *never* ever get behind.
2. Strive to understand, not memorize the material.
3. Come to class everyday.
4. Do some homework every single day.
5. Keep up with outlining your lecture notes and the book.
6. Keep updating your roadmap for each new reaction as the semester goes along.
7. Learn and understand mechanisms, do not memorize mechanisms.
8. Strive to understand the reactions also, not memorize the reactions.

### **How to Study Before the Exams:**

1. Redo the more difficult homework questions.
2. Study your notes by looking at each topics, mechanism, reaction, etc., then close your notes and reproduce the logic, mechanism, reaction, etc. on a separate piece of paper from your mind. Do not simply look over the notes and say to yourself "yeah, I remember this, I understand this". You must be able to reproduce it from scratch.
3. If you must memorize the reactions, use flash cards. But do not do them for the mechanisms.