

CHEM 227H, FALL 2017
29 AUGUST EDITION of SYLLABUS

Tuesday/Thursday, 9:35-10:50, Room 255

Professor John A. Gladysz
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Office Hours that Proved Optimal for Students in 2016

Tuesday 11:00 am – 12:00 pm
Wednesday 02:00 pm – 03:00 pm
Friday 03:00 pm – 04:00 pm

new for 2017: organic chemistry help desk, room 2211, 25 hours/week starting 04 September

Dr. Gladysz can be available at additional times by appointment (see Mr. Bryan Stewart below). He is generally "off limits" during nights and weekends, as these are the times he devotes to graduate courses and research.

Supporting Personnel and Communication

In connection with his Editing and University responsibilities, Dr. Gladysz receives approximately 200 e-mails per day (often more) and alternative communication modes are appreciated when they are available. For example, many matters of a routine nature can often be directed to the e-mail address of the administrative assistant or teaching assistant.

Administrative Assistant (Mr. Bryan Stewart): bryan.stewart@chem.tamu.edu
Grader: to be determined

Grading

Hour exams, 3 @ 100 points each (26 September, 24 October, 21 November)	300 points
Final exam, 1 @ 200 points (8 December)	200 points
Problem Sets (see schedule in OWL2)	75 points
<i>Total points</i>	<u>575 points</u>

Access to personal calculators, smart phones, smart watches, and similar devices is forbidden during exams.

The class GPA likely will exceed that of other 227 sections.

Grade distribution for the fall 2015 section taught by Dr. Gladysz: A+, 3% ($\geq 434/575$); A, 10% ($\geq 402/575$); A-, 6% ($\geq 388/575$); B+, 16% ($\geq 363/575$); B, 23% ($\geq 334/575$); B-, 13% ($\geq 318/575$); C+, 3% ($\geq 306/575$); C, 10% ($\geq 287/575$); C-, 6% ($\geq 266/575$); D+, 3% ($\geq 250/575$); D, 3% ($\geq 209/575$); D-, 3% ($\geq 194/575$).

Grade distribution for the fall 2016 section taught by Dr. Gladysz: A+, 8% ($\geq 486/575$); A, 29% ($\geq 446/575$); A-, 8% ($\geq 422/575$); B+, 13% ($\geq 401/575$); B, 13% ($\geq 345/575$); B-, 8% ($\geq 318/575$); C+, 8% ($\geq 300/575$); C, 8% ($\geq 293/575$); D, 4% ($\geq 263/575$).

Attendance at all exams is rigorously required. Only absences officially sanctioned by University regulations are allowed. Makeup exams must be completed for all missed exams. The makeup exams will always be oral exams, lasting 30-60 minutes.

Textbook

McMurry, *Organic Chemistry* 9th edition
(see special handout or e mail regarding electronic access)

Projected Coverage:

Exam 1	Chapters 1-4
Exam 2	Chapters 1-4 and 5-8
Exam 3	Chapters 1-8 and 9,10,11,17
Final Exam	Chapters 1-11 and 17-18

Dedicated textbook/"owl" Technical Support URL:

<https://support.cengage.com/magellan/ClassLandingPage.aspx?OptyId=1106068>

Handouts and Supplementary Materials

Please go to *eCampus* in your **Howdy** portal (<https://howdy.tamu.edu/cp/home/displaylogin> and log in with your NetID and Password and then click on the eCampus icon at the top of the page) for copies of all course handouts and materials.

Nature of an Honors Class

Organic chemistry is difficult. The Honors section is somewhat more difficult. Some things will be done differently, and they are likely to consume more time. However, the smaller class size may compensate; we will all get to know each other better.

There are no significant disadvantages to taking an Honors organic chemistry section for a highly motivated student who would get an A or B in a regular section. Some students (honors or regular section) crash and burn in organic chemistry. Nobody hopes for this outcome, but experience shows that not all bright people do well in organic chemistry. The reasons for a lack of success are unpredictable and varied. Happily, some students who earn average grades in first year chemistry flourish and achieve top grades in organic chemistry.

However, even if you turn out to be one of the individuals not doing well, the Honors course is unlikely to be the cause per se. In many cases, students fail to realize that organic chemistry is not like other courses in that it requires that you work at it continuously. It is unrelenting. Re-reading the text and cramming for the exam a night or two before rarely if ever works.

Problem Sets

The key to doing well in organic is work – working every week. Weekly work on problem sets, reading the chapter contemporaneously with the lecture and writing lots of things down with pencil and paper are all good ideas. The problems that will be assigned from McMurry are designed to be sufficient for passing this course, but there is an infinite supply of additional problems on the web. You will find that organic chemistry has some features of a language but that it is a language that depends on drawings – drawings that can and often do grossly misrepresent reality and that unmodified can be literally deceitful.

Learning Outcomes

Chem 227H will provide an understanding of the basic issues involved in organic chemistry. That will include bonding, structure drawing, isomerism, chirality, acidity, and basicity. Students will learn the formal nomenclature used in organic chemistry and will have a grasp of the variety of functional groups and their reactivity. Students will specifically learn formal IUPAC nomenclature, nomenclature relevant to stereogenic centers and groups, and nomenclature common to applications of chemistry. Students will also understand the basic types of mechanisms encountered in organic chemistry. This will include understanding how thermodynamics and kinetics affect regio- and stereochemistry in reactions. It will also include understanding the various processes that form the principle reactive intermediates that affect how organic chemicals are made, how they decompose, and how they function in biology, in environmental science, and in materials chemistry. Students will also learn the basic concepts underlying chemical synthesis both in context of industrial processes, in the context of fine chemical synthesis, and in the context of

synthesis of medicines. This will include an understanding of green chemistry principles.

Materials from Previous Courses

Dr. Gladysz took one year of Honors organic chemistry as an undergraduate; coupled with the lab experience, that convinced him to become a (organic) chemist. In that course, lectures had little to do with the exams. The exams followed, to a reasonable degree, the structure of the classic book of that era, Morrison & Boyd.

Dr. Gladysz has taught the entire year of Honors organic chemistry five times since the year 2000. The exams given in the fall of 2016 will be handed out and studied during the review sessions on the course syllabus.

Molecular Models

These are essential for passing the course; you can't survive without a set. Adequate sets can be purchased from the A&M American Chemical Society Student Affiliate Chapter (ACS-SAC). They will be selling Model Kits (\$20) at every passing period starting from 7:40 am to 4:00 pm on Tuesdays and Wednesdays in the hallway outside our classroom for the next 3 weeks. See also their website <http://acsaggies.blogspot.com/> and feel free to visit their lounge, room 2016.

Professional Behavior

Dr. Gladysz will not publically embarrass anyone who uses a smart phone or similar device for texting, personal messages, game-playing, or the like during lecture (using a smart device to look up a point of chemistry during a presentation is acceptable professional behavior). However, he does not write letters of recommendation for individuals who engage in texting and personal mobile device use during lectures.



Cheating

Cheating will not be tolerated. The minimum penalty for cheating is an automatic zero on the exam or quiz in question. Suspension from the University may also result. Don't risk it. It's not worth it.

Plagiarism consists of passing off as one's own the ideas, words, writings, etc. that belong to someone else. You are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have that person's permission. For further information, consult the latest Texas A&M University Student Rules (see the section "Scholastic Dishonesty").

AGGIE HONOR CODE: "An Aggie does not lie, cheat, or steal or tolerate those who do." Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit: <http://aggiehonor.tamu.edu>

Americans with Disabilities Act (ADA) Policy Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building, or call 845-1637.