

## Organic Spectroscopy

- Instructor:** Professor Nancy Totah  
phone: 443-2657
- office: 3-004 CST  
email: ntotah@syr.edu
- Office Hours:** By appointment, between 11am-5pm, weekdays
- Web Page:** <http://chemistry.syr.edu/totah/che575/>
- Course Description:** This course will focus on the use of instrumental methods for assigning structures to organic molecules. Topics covered include infrared spectroscopy, mass spectrometry, and nuclear magnetic resonance spectroscopy, with an emphasis on the latter. Both the basic theory and practical applications of these methods will be discussed.
- Text Book:** Pavia, Lampman, Kriz, Vyvyan, *Introduction to Spectroscopy*, 5<sup>th</sup> Ed. (required)
- Lecture Notes:** Projected lecture materials, problems, and supplemental handouts will be posted on the course website. Please check the website to get relevant lecture notes before coming to class. Please note that lecture materials provided may not represent the full content of our in class discussion. Come prepared to take notes.
- Grading:** Final grades will be based on the following scale (500 total points):
- |                  |         |
|------------------|---------|
| Exams (3) .....  | 300 pts |
| Final Exam ..... | 200 pts |
- Exams:** Regular exams will be held in class; the final exam will be take home. Anticipated exam dates are indicated below. Emphasis for each regular exam will be placed on material covered since the preceding exam. However, as structure determination builds from all of the topics discussed this semester, you should consider all exams to be comprehensive. Be prepared to apply previously learned concepts to material encountered later in the semester. The final exam will be comprehensive.
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|------------|---|
| Exam I     | Thursday, February 9, 2017                |
| Exam II    | Thursday, March 9, 2017                   |
| Exam III   | Thursday, April 20, 2017                  |
| Final Exam | take home, due Monday May 10, 2017 at 5pm |
- You will be allowed to use class notes and your textbook on all regular exams, as well as a simple calculator. Use of cell phones, tablets, and computers (or any other device that can access the internet/has phone/texting capabilities) is not allowed.
- If you miss an exam or do not submit the final exam on time, you will receive a zero for that exam unless you provide written documentation for a medical or other emergency. A valid medical excuse must be based upon clinical findings and treatment recommendations, must be signed by a physician and must specifically indicate that you were unable to attend the specific exam date and time.
- Problems:** The best way to become adept at solving structures using spectroscopic data is to practice. You are encouraged to work as many problems as possible. Work at least the problems in each chapter that have an asterisk (\*) next to them (unless otherwise noted). In addition, several in class discussion sessions will be scheduled over the course of the semester. A set of problems will be assigned prior to each discussion, and students will be asked to show how they solved the assigned problems at each session. Don't stop there! Both your text and on-line resources listed on the website are valuable sources of additional spectroscopy problems.

**Academic Integrity:**

Students enrolled in the course should exhibit honesty in all academic endeavors. Cheating in any form will not be tolerated. Students are encouraged to work together on assigned discussion problems and to study together. However, all graded exams and assignments must be exclusively the work of the individual student. Syracuse University policies describing student rights and responsibilities can be found at [http://supolicies.syr.edu/ethics/acad\\_integrity.htm](http://supolicies.syr.edu/ethics/acad_integrity.htm). Students caught violating the academic integrity policy will be reported to the academic integrity office and will receive a grade of F in the course. Students with pending academic integrity hearings are not allowed to drop the course.

**Disability Policy:**

Reasonable accommodation will be made for students with disabilities. If you require accommodation, please let Prof. Totah know as soon as possible, but no later than January 31st. After that time, I will consider existing exam conditions to be satisfactory. Students who request special accommodation must be registered with the Office of Disability Services (804 University Avenue, room 309, 315-443-4498) and have an updated accommodation letter. Accommodations will not be provided retroactively.

**Religious Observances:**

Syracuse University recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Students who anticipate that work requirements may be missed due to a religious observance must notify the instructor by the end of the second week of classes. The online notification process is available through MySlice/Student Services/Enrollment/My Religious Observances. *Note that travel periods before and after the actual religious observance are not considered excusable periods for missed work.* ([http://supolicies.syr.edu/emp\\_ben/religious\\_observance.htm](http://supolicies.syr.edu/emp_ben/religious_observance.htm))