

Fall 2009 - Chem 325 – Integrated Laboratory*

Instructor: Dr. Audra Goach Sostarecz
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Office Hours: 10:00am - 10:50am M
10:00am – 10:50am W
1:00pm – 1:50pm F
others by appointment

Guest Instructor: Dr. Eric Todd
305 Haldeman-Thiessen (HT)
309-457-2161 - office

***Concurrent with Chem 340 Advanced Analytical Chemistry**

Meeting Time: T,R 8:00-10:50am; HT 306

Required Textbook: Undergraduate Instrumental Analysis, 6th Edition, James W. Robinson, Eileen Skelly Frame and George M. Frame II

Required Readings and Handouts: TBA on webpage <http://personal.monm.edu/asostarecz/default.htm>

Grading:

Weekly Progress Reports	20%
Lab #1 Report	15%
Research Proposals (2)	20%
Project #1 Research Report	20%
Project #2 Presentation (FINAL)	25%

Letter Grades: A → 93 ← A⁻ → 90 ← B⁺ → 87 ← B → 83 ← B⁻ → 80 ← C⁺ → 77
77 ← C → 73 ← C⁻ → 70 ← D⁺ → 67 ← D → 63 ← D⁻ → 60 ← F → 0

Goals: Integrated Laboratory will provide you with the opportunity to apply your chemistry, biology, and/or biochemistry skills that you have acquired thus far. You will be responsible for proposing, planning, and executing the projects that you research. You will also expand your knowledge of writing research reports and presenting the goals and results of your research.

Attendance: It is your responsibility to work in the lab every week from 8:00am to 11:00am on Tuesday and Thursday. If an incident arises that will require you to not fulfill your lab hours for the week, please contact me.

Weekly Progress Reports: On some **Fridays** as denoted on your schedule, your group is required to hand in a written report of your progress for the project that you are working on. These reports should be in the form of a word document and they should include data in the form of graphs with an explanation of your results for that week. Plans for the following week should also be included.

Lab #1: You will be working in groups on an organic synthesis project that will be assigned to you. This project will require instrumental analysis. Each group will also submit a lab report on this project.

Research Proposals: You are responsible for proposing two group research projects. Each project will require a written proposal (guidelines will be provided) that I will then discuss with each group separately.

Group Project #1: Each group will propose a project that will familiarize you with the qualitative and quantitative aspects of at least three of the following techniques: UV/Vis, HPLC, GC-MS, AA, FT-IR, and/or NMR. You will need to write a **group** formal research report (guidelines will be provided) for this project with a discussion that compares/contrasts the techniques used.

Group Project #2: Each group will propose a project that contains both a **synthesis and analysis component**. You will have all of the instruments in the Chemistry Department to use but you will be required to use any instrument that you have not already used in your previous projects. You will present your results in the form of

a **group** power point presentation/poster. Each group will present their project on **Sat. Dec 12 at 1 pm**. Please see me early if you have a conflict.

Academic Dishonesty and Plagiarism: The following is taken from the Monmouth College policy on academic dishonesty:

We view academic dishonesty as a threat to the integrity and intellectual mission of our institution. Any breach of the academic honesty policy – either intentionally or unintentionally - will be taken seriously and may result not only in failure in the course, but in suspension or expulsion from the college. It is each student's responsibility to read, understand and comply with the general academic honesty policy at Monmouth College, as defined here in the Scots Guide, and to the specific guidelines for each course, as elaborated on the professor's syllabus.

The following areas are examples of violations of the academic honesty policy:

1. Cheating on tests, labs, etc;
2. Plagiarism, i.e., using the words, ideas, writing, or work of another without giving appropriate credit;
3. Improper collaboration between students, i.e., not doing one's own work on outside assignments specified as group projects by the instructor;
4. Submitting work previously submitted in another course, without previous authorization by the instructor.

Please note that this list is not intended to be exhaustive.