Spring 2009 - Chem 325 – Integrated Laboratory*

	Dr. Laura Moore**	Dr. Audra Goach Sostarecz**
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Office Hours:	10:00am-11:00am MWF	2:00pm-3:00pm M; 9:00am-10:00am W
	other times by appointment	11:00am-12:00pm R
		other times by appointment

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

****This class will be team taught by both Dr. Moore (T) and Dr. Sostarecz (R)**

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	15%
Lab #1 Report	15%
Research Proposals (2)	20%
Project #1 Group Research Report	25%
Project #2 Group Presentation (FINAL)	25%
Letter Grades: 93%=A; 90%=A-; 87%=B+; etc.	

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. The first four Thursdays will be devoted to lecture as opposed to lab. If an incident arises that will require you to not fulfill your lab hours for the week, please contact either instructor.

Weekly Progress Reports: Once a week on **Friday** as denoted on your schedule, your group is required to present me with a written report of your progress for the project that you are working on.

Lab #1: For the first three Tuesdays of the semester, you will be working in groups on an organic synthesis project that will be assigned to you by your instructors. This project will require analysis by UV/Vis and/or GC-MS. 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 your instructor 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, and/or AA. 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 the AA and the FTIR. You will present your results in the form of a **group** power point presentation/poster. Each group will present their project on Sat. May 9 at 6 pm. Please see me early if you have a conflict.

Academic honesty and conduct: Cheating, plagiarizing, and other forms of academic dishonesty will be dealt with in accordance with the Monmouth College Catalogue and could yield an F for the course.