CHEM 183
Chemistry and Biochemistry Major Research Rotation
Fall Semester 2015
Fridays, 2-5pm

**Learning Outcomes:**
Students will:
- Compare and contrast techniques used in chemistry and biology research at the College of Charleston
- Participate in framing research questions
- Collaborate in collecting data relevant to framed research questions
- Describe "big picture" of research projects in participating labs

**Format of the Course:**
Every two weeks, your section will rotate to a different Chemistry faculty member's lab to learn about the research problems being addressed in that lab and to get exposure to the types of techniques used to address the problems.

**Attendance:**
Attendance is critical in this course. Each of the 12 research sessions is worth 4% of your grade. Absence due to illness or other emergency can be excused at the discretion of the instructor in that session. Documentation of the illness will be required.

**Lab Notebook:**
Please bring a bound lab notebook to class each week to record your notes and data taken during the sessions. At the end of the term, lab notebooks will be collected and evaluated for organization, completeness and proper record keeping.

**Grading:**
At the conclusion of the semester, your grade will be calculated according to the following formula:

- **Participation:** The learning in this course comes from the process of doing, rather than from passive reading or lecturing. You are expected to participate in each session by carrying out assigned lab tasks related to the research project. Each session is worth 3% of your grade, for a total of 36%.
- **Summary Paragraphs:** You are responsible for writing a well-written paragraph that summarizes in your own words the focus of research in each faculty member’s lab. You will turn these in on a drop box on Oaks.
- **Lab Notebook:** Each student will keep a bound laboratory notebook of their notes and data that will be evaluated for proper lab notebook technique. The lab notebook is 10% of your grade.
- **Lab Assignments:** After each two-week session, each faculty member will design an assignment that reinforces the techniques and topic of the research conducted. The instructor for that session will grade this assignment. Be sure to take careful note of due dates and instructions for each assignment. Each module's assignment is 5% for each module of your grade (total 30%)
- **Final Exam:** The final exam in the course will count as 12% of your final grade.

**Lab Assignments:**
Each two-week session will conclude with a small assignment. The instructor for that session will create and grade this assignment. Be sure to take careful note of due dates and instructions for each assignment.

**Final Exam:**
The final exam is Friday, Dec. 4 at 2pm. It will be a multiple choice, open notebook test with questions drawn from each of your rotations.