Chemistry 732: Advances in Macromolecular Structure and Function
Fall 2013

Prerequisites
Chemistry 430/431, Introduction to Biological Chemistry or equivalent.
This prerequisite may be waived after discussion with the professor.

Course Meets
Tues – Thurs 8:00 – 9:15 AM
B125 Kenan: may be subject to change

Faculty Instructor
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Office Hours
By appointment. Please email me with “Chem 732” in the subject line and suggest 2 - 3 times that would work for you.

Literature
We will focus on 1 - 2 key literature articles per week, plus a review article for orientation.

To access journal articles in the UNC electronic databases from off-campus (requires an onyen login), you can either use a special version of PubMed, linked to a UNC proxy:


or place the following URL in front of the link to the article of interest:

http://libproxy.lib.unc.edu/login?url=

Course Goals
The overall objective of this course is to facilitate development of students into strong scientific thinkers and writers, while focusing on the broad field of macromolecular structure. Students, under the guidance of the faculty advisor, will make the class presentations.

Student Presentations
Each lecture will focus on 1 – 2 articles from the primary literature. We will assign 2 students per lecture to present the articles as a power point presentation for that lecture. Since this is a small enrollment course, each student will be required to give presentations multiple times as needed.

Presenters: Student groups will be composed of 2 students per lecture. Students are expected to develop their presentation with guidance of the faculty advisor. The students must meet with the faculty member prior to the presentation. We suggest students presenting on Tuesday meet after class the prior Thursday. And students presenting on Thursday meet after class the prior Tuesday. Independent appointments can also be made with the professor provided enough scheduling in advance. Both students should contribute equally to the presentation.
Presentation should be organized as follows:

1. Background and introduction: Students are encouraged to source additional literature to provide a more complete background on the subject. Should answer the questions: Why is this important? What has been done previously? Where are the current limitations?

2. Methodology: Students should highlight in detail, important methods that are essential to the papers of interest.

3. Critical analysis of data: Students should show relevant data from the paper and supporting information. A detailed description of how the data was collected is required. The students should provide a discussion on how the data supports relevant conclusions.

4. Class Discussion

Audience: Students that are NOT presenting are required to come class prepared for discussion. All students must read the assigned literature. All students must prepare two copies of 2 – 3 questions covering that days assignment. One copy will be handed at the start of each class.

Take Home Exams: There will be two take home exams covering the 1st and 2nd half of the class. Students will have one week to complete the exam. Students may use any form of notes, books, primary literature, etc. that is available. Students must use their own words as consistent with the honor code. Group work is not permitted for take home exams, which must be completed independently.

Evaluation: Students will be evaluated based on four criteria, each worth 25% of the course grade. The components are: the class presentation, prepared question, the take home exams, and class preparedness and participation. To help shy folks (and others), the faculty advisor will routinely call on students in class.

Attendance: Attendance is mandatory since this course requires student participation. Students who expect to be absent should gain prior approval with the instructor. Students are permitted up to 2 excused absence. Each additional absence will lower your letter grade one notch per missed class.

Honor Code: Policy adopted by the faculty of the Department of Chemistry (9 Sept 97): Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examinations, research proposals, laboratory results and reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments, which are not to be collected.

Students are encouraged to work together at any time and copiously, except on written assignments and the take home exams.