Chemistry 305 Fall, 2014 Course Guidelines

Instructor: Daniel Graham, Flanner Hall Room 401 (office and voice-mail, 773 508-3169); Loyola Chemistry Office: 773 508-3100; Loyola Chemistry FAX: 773 508-3086; DG email: dgraha1@luc.edu.

Office Hours: M, W 1130 – 1300 or by arrangement.

Class Hours: M, W, F 0815 – 0905, Cuneo Hall 109.

Discussion: M, 0920 – 1010, Cuneo Hall 002

Textbook: *A Life Scientist's Guide to Physical Chemistry* by Marc R. Roussel.

Chemistry 305 is entitled *Physical Biochemistry*. As such, the semester will focus on biochemical applications of quantum mechanics, thermodynamics, and chemical kinetics. The topics will include:

Quantum Principles and the Nature of Light

Thermodynamic Properties and Laws

Phase Behavior

Kinetic Principles and Reaction Rate Laws

Exams:

There will be three in-class exams during the semester. There will also be a two-hour final exam on the second Monday of finals week. Each exam will consist of questions and problems representative of the textbook and lectures. All calculations will be entered in a standard blue book provided by the instructor. A calculator, periodic table, and a single page of notes (normal paper, both sides OK) may be used during each exam.

The single page of notes must be included with the blue book prior to hand-in. Blue books must be signed on the front, upper right-hand corner. Each signature will be taken as a statement of honest, independent work. Instances of academic dishonesty will warrant immediate failure of the course plus referral to the Arts and Sciences Dean's office. Please review the College's policy on academic integrity via the Loyola University website.

Exams will be graded and returned as soon as possible. All grading questions, points of clarification, and grading errors must be brought to the instructor's attention during office hours no later than one week after return of the exam.

If special provisions are needed for the exams and other aspects of Chemistry 305, please consult DG during the first week.

Assignment of Grades:

The following scale will be used: 87% - 100% A-, A; 72% - 86% B-, B, B+; 59% - 71% C-, C, C+; 50% - 58% D, D+; < 50% F. Grades will be assigned by weighting the in-class exams 0.55, problem sets 0.10, and the final exam 0.35, with account given to improvement during the semester.

An aim of the grading policy is to allow time and incentive for improvement. Physical chemistry is not easy to learn, but the process is rewarding if necessary effort is made to master fundamentals as they appear. Please contact DG to discuss problems before they become serious.

Assignments: Assigned problems will be featured throughout the semester based on the readings, lectures, and discussions. Students are urged to work as many problems as possible with the help of each other and DG.

Quizzes: Quizzes will be included in the discussion hours. Best-effort discussion and quiz work will warrant one point applied to the up-coming exam.

Sakai Materials: There will be multiple postings on *Sakai* during the semester: lecture notes, assignments, quizzes, last year's exams, etc. Please check the website every day or two for the latest postings. Errors should be brought to DG's attention as soon as possible.

Schedule:

The typical week will feature Monday, Wednesday, and Friday lectures starting at 0815. Monday morning discussions will include Q & A plus a quiz.

M	082514	First Class Meeting. We will begin with Part One of Roussel
M	090114	Labor Day Holiday ☺♫
F	092614	**Exam I**
M	100614	Fall Break Holiday ☺♫
F	102414	**Exam II**
F	112114	**Exam III**
W	112614	Thanksgiving Break Holiday ☺♫
Th	112714	*The* TGB Holiday ☺♫!!
F	112814	Still Another Holiday ☺♫
F	120514	i-dotting and t-crossing
M	121514	**Final Exam at 0900 - 1100.**