Chemistry 435/395 Fall 2013 Course Guidelines

Instructors: Daniel Graham, Flanner 401, 773-508-3169, dgraha1@luc.edu

Jan Florian, Flanner 314, 773-508-3785, <u>ifloria@luc.edu</u>
Daniel Killelea, Flanner 103, 773-508-3136, <u>dkillelea@luc.edu</u>

DG Office Hours: M, W 1130 – 1300 or by arrangement. JF Office Hours: T 8:00 pm-9:00 pm, W 2:00-3:00

DK Office Hours: M,Tu 10:30-11:30

Class Hours: T, 2:15 - 5:00 Flanner Hall 105.

Chemistry 435/395 is entitled *Physical Chemistry Survey*. It will focus on the core ideas of thermodynamics, quantum mechanics, and molecular spectroscopy. The topics will include:

Thermodynamic properties: systems, laws, and equations of state

Quantum mechanics of molecules

Molecular spectroscopic methods, in particular rotational and vibrational

Exams: There will be three exams, each following the completion of a core subject. The exams will consist of questions and problems representative of the lectures and assignments. There is an honor code: one's exam 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 errors must be brought to light no later than one week after return of an exam.

If special provisions are needed for the exams and other aspects of Chemistry 435/395, please consult with 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 exams 0.75 and assignments 0.25.

It goes without saying that physical chemistry is not easy to learn. However, the process is rewarding if necessary effort is made to master fundamentals as they appear. Students are urged to work with one another and the instructor to alleviate problems before they become serious.

Assignments: There will be weekly assignments. Students are urged to complete these with the help of each other and the instructors.

Sakai Materials: There will be postings on Sakai during the semester. Please check the website

every few days the latest postings. Errors should be brought to light as soon as possible.

Tentative (subject-to-change) Schedule:

Each week will feature Tuesday afternoon lectures starting at 2:15 PM. Major dates are as follows:

T 082713 First Class Meeting. The initial core topic will be thermodynamics.

T 092413 Last Day of Thermodynamics

T 100113 Second Core Topic: Molecular Quantum Mechanics

T 100813 Fall Break: no classes 🔾 🎜

T 102913 Last Day of Quantum Mechanics

T 110513 Third Core Topic: Molecular Spectroscopy

T 120313 Last Class Meeting