CHEM 645: Quantum Mechanics in Chemistry
Spring 2015

CREDITS: 3

CLASS MEETING TIME: TTH, 11:00 AM - 12:20 PM
LOCATION: 100 Life Science

INSTRUCTOR: Professor Ari Chakraborty
4-008 CST
ari.course@syr.edu

OFFICE HOURS: Held in room CST 0-10
Thursday 1-2 pm
and by appointment.

COURSE MANAGEMENT SYSTEM: http://blackboard.syr.edu/
The site will have class information posted including:
• Lecture notes
• Test schedules, results, and post-exam answers
• Homework assignments
• Other important class information

RECOMMENDED BOOKS:
[1]. Quantum Mechanics by R. Shankar
[2]. Modern Quantum Chemistry: Introduction to advanced electronic structure theory
   by Attila Szabo and Neil S. Ostlund (Dover publications)
   from SU library)

DESCRIPTION:
Application of quantum mechanics in chemistry with emphasis on electronic structure theory,
chemical dynamics, and spectroscopy.

PREREQUISITES:
If you have any questions about your preparation for this course, you should talk to the instructor
as soon as possible.

Students with any type of disability who may need special consideration or accommodations are
couraged to discuss their concerns with the instructor right away to make arrangements.
More information on http://supolicies.syr.edu/

EXAMINATIONS:
There will be two mid-term examinations and a final exam during the official university final
exam period.
EVALUATION:

Exam 1: 15%
Exam 2: 15%
Final Exam: 40%
Homework Assignments: 15%
Quizzes 15%

COURSE POLICIES

Academic Honesty (from http://academicintegrity.syr.edu)
Complete academic honesty is expected of all students. Any incidence of academic dishonesty, as defined by the Syracuse University Academic Integrity Policy (http://academicintegrity.syr.edu), will result in both course sanctions and formal notification of the College of Arts & Sciences. In this course, students are allowed and strongly encouraged to study together, but exams and online problem sets must represent the work of the individual student. Online problem sets must be completed by each student using his or her own access account, though reference to the text and lecture notes is allowed.

Attendance
Attendance is not recorded in lecture. However, there is a very strong correlation with good attendance and good grades and it is in your own best interest to attend lectures regularly.

Syracuse University’s religious observances policy
(http://supolicies.syr.edu/emp_ben/religious_observance.htm) recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice/Student Services/Enrollment/My Religious Observances from the first day of class until the end of the second week of class. The religious observances policy requires accommodation for the religious holiday itself, not for travel days if a student will be observing the holiday elsewhere.

Medical absences will be excused based on written advice from the Health Center or a healthcare provider (based upon clinical findings and prescribed treatment recommendations). NO VERBAL EXCUSES WILL BE ACCEPTED. The medical document must specifically indicate...
that you were unable to attend class/recitation. All such absences will be verified by Chemistry Department staff.

THERE WILL BE NO MAKEUP EXAMINATIONS EXCEPT IN THE CASE OF ADVANCE-NOTICE APPROVED ABSENCES.

ALL ADVANCED-NOTICE APPROVALS WILL RESULT IN AN OPPORTUNITY TO TAKE THE EXAM IN ADVANCE, NOT AFTER THE REGULARLY SCHEDULED EXAM TIME.

AN APPROVED ABSENCE THAT PREVENTS A STUDENT FROM TAKING AN EXAM ON-TIME OR EARLY WILL RESULT IN THE DROPPING OF THAT PARTICULAR GRADE FROM THE CALCULATION OF THE OVERALL CLASS GRADE.

Disability-Related Issues
If you have a learning or physical disability, please see Professor Chakraborty as soon as possible (during the first 2 weeks of the course) to arrange for appropriate accommodations. No provisions/accommodations will be made if the instructor is notified after examinations. Students requiring special accommodations MUST register with the Office of Disability Services (804 University Avenue Room 309, Phone: Voice: (315) 443-4498; TDD: (315) 443-1371, E-Mail: odssched@syr.edu). Exams MUST be administered by the Office of Disability Services.

ACADEMIC ETHICS:
Possession of unauthorized materials during exams, alteration of exams prior to submission for regrading, plagiarism, or other forms of cheating will be considered serious violations of academic ethics and treated as such. They may result in a failing grade on an exam or in the course and may also be referred to the University disciplinary system.

All Syracuse University policies (http://supolicies.syr.edu/) regarding ethics and honorable behavior apply to this course.