

CHEMISTRY 237
EXPERIMENTAL SPECTROSCOPY
SPRING, 1999

Instructor: Joel Tellinghuisen, SC 5521
Office Hours: 12-1 MWF

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Texts: *Physical Chemistry*, by Ira N. Levine (McGraw-Hill, 1995)
Experiments in Physical Chemistry, by Shoemaker, *et al.*
(McGraw-Hill, 1996)

The course will cover essentially all of the material in Chapters 18 and 21 of Levine and much of that in Chapters 19 and 20. The experiments to be done will be mostly from the realm of optical spectroscopy, and will include the recording and analysis of the emission spectrum of atomic hydrogen and deuterium, the infrared rotation-vibration spectrum of HCl (Experiment 37 in Shoemaker), and the absorption/fluorescence spectrum of I₂ (Shoemaker Expt. 40).

The course will be roughly 60% "lecture" and 40% "lab." More specifically, there will be (a) two exams — one just before spring break, the other in the scheduled final exam slot, (b) a number of quizzes and problem sets, (c) laboratory data analyses, and (d) one major lab write-up. The credit breakdown for these assignments will be as follows:

Exams	200
Problems/quizzes	100
Labs/data analysis	150
Lab write-up	50

Collaboration is permitted on the recording and analysis of experimental data. All other graded work is to be done individually, on the Honor System, unless otherwise specified.