Chemistry 609 — Fall 1995

Advanced Chemistry Topics: *The Chemistry of Surfaces*

Instructor: Dr. John B. Miller
4020 McCracken
387-2871

Office Hours: 1200–1250 T
1845–1930 W
or by appointment

Class: 1730-1845 MW, McCracken 4200

Audience: This course is suitable for first-year and more advanced graduate students in chemistry, physics, geology and engineering.

Prerequisite: Undergraduate physical chemistry. Inorganic chemistry is useful.

Texts: Adamson, *Physical Chemistry of Surfaces*
Hoffmann, *Solids and Surfaces*
Reprints and readings assigned from the literature

(Recommended)
Woodruff and Delchar, *Modern Techniques of Surface Science*.

Topics: Bulk and surface crystal structure. Bonding in solids and at surfaces. Surface electronic structure. Surface analytical techniques. Surface chemical processes. Thermodynamics. Applications of surface chemistry.

Grading:

Problem Sets (~4)	30%
In-class quizzes (3-4)	20%
Take-home Exam	20%
Final Paper	20%
Presentation	10%

Problem Sets, the Take-home Exam, and the Final Paper will be graded and returned within two weeks. Quizzes will be graded and discussed the same day. A brief, written evaluation of the presentation will be available within one week.

Late Work: Late Problem sets will be assessed a penalty of 15% per week. Problem sets more than two weeks late will not be accepted.

Attendance is very important. Missed quizzes may be made up, but will be penalized 15%, except for illness and by prearrangement.

A late take-home exam or final paper will be assessed a penalty of 15% per day. An item more than two days late will not be accepted.