CHEM 5315
Inorganic Chemistry

--Fall 2009, Syllabus--

General Information

Course Catalog Description: An overview of the quantitative aspects of main group chemistry, structure, bonding, reactivity, organometallic chemistry, and transition metal complexes. Particular emphasis will be placed on understanding the chemistry of metal centers in biological and synthetic inorganic model complexes and the modern physical techniques more frequently employed to study these systems. This course will assume a rudimentary knowledge of quantum mechanics. Prerequisite: CHEM 4318 or permission of instructor.

Lecture: Science Hall (SH) Rm. 205, 6:00 – 7:20 am MW

Instructor: Brad S. Pierce
Office: SH 300F
Phone: 817-272-9066
bspierce@uta.edu

Office hours: MWF 10 am – 11 am, or by appointment

Required Texts:

(1) Inorganic Chemistry (4th Ed), Shriver and Atkins, Freeman

(2) Physical Methods in Bioinorganic Chemistry, L. Que; University Science Books

Supplemental Texts:

(A) Concise Inorganic Chemistry, 5th Ed; J.D. Lee, Chapman and Hall


(C) Physical Methods for Chemists, 2nd Ed. Russell Drago, Saunders College Publishing

Course Work and Grading

Exams. Three TAKE HOME exams will be given over the course of the semester worth 100 pts each. Any resource (including the instructor) can be used to complete the problems but each student MUST WORK ALONE. While it is understood that problems will be discussed outside of class by students it is expected that each student will turn in their own unique solution set to each Exam. WORKING TOGETHER WILL BE CONSIDERED CHEATING.
Journal Review. Each student will present a review of an approved journal article which has been published within the last year. The research must be concerned with transition metals in biological systems, synthetic model complexes and should include some spectroscopic analysis. The review will be no longer than 15-minutes in duration, leaving 5-minutes for class questions. (Please refer to one of the following journals to select you topic: Journal of the American Chemical Society, Biochemistry, Journal of Biological Chemistry, Journal of Biological Inorganic Chemistry, Science, Nature, Proceedings of the National Academy of the Sciences, Inorganic Chemistry, Angewante Chemie).

Attendance: Students are responsible for all the material assigned and presented in class regardless of their attendance. Exams will NOT be rescheduled without prior approval by the instructor. Make-up Exams will NOT be given without a valid medical or family emergency.

Class Communication: E-mail is the prime means for communication. Therefore, the University has the right to send communications to students via e-mail and the right to expect that those communications will be received and read in a timely fashion. The Office of Information Technology (OIT) will assign all students an official University e-mail address. It is to this official address that the University will send e-mail communications. Students are expected to check their official e-mail account on a frequent and consistent basis to stay current with University communications. The University recommends checking e-mail daily, in recognition that certain communications may be time-critical.

Academic Dishonesty

Academic dishonesty will not be tolerated in ANY form.

Enrollment in this course implies acceptance of the university policy as outlined in the Regents’ Rules and Regulations and on this course syllabus.

“Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, any act designated to give unfair advantage to a student or the attempt to commit such acts.”  (Regents’ Rules and Regulations, Part One, Chapter VI, Section e, Subsection 3.2, Subdivision 3.22)

It is the students’ responsibility to be aware of what constitutes academic dishonesty.

Any and all accusations or situations which may involve academic dishonesty will be directed to the Office of Judicial Affairs. No warnings will be given. Discipline may range from loss of credit on an exam/quiz/assignment to expulsion from the university.
**Additional Information**

**Dropping:** When dropping the course, YOU are responsible to see that the proper paperwork is filed with the Chemistry Department. Failure to do so will result in a grade of “F”.

**Drop for non-payment of tuition:** If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar’s Office. You may not continue to attend class until your enrollment loan is applied to outstanding tuition fees.

**Grade Replacement:** Students enrolling in this course with the intention to of replacing a previous grade earned in the same course must declare their intention to do so at the registrar’s office by Census Date (Sept. 7 in F2005) of the same semester in which they are enrolled.

**Pass/Fail:** If P or F is a grade option in this class and you intend to take this class for a pass/fail grade instead of a letter grade, you MUST inform the instructor(s), through the necessary paperwork, before the Census Date.

**Bomb Threat Policy:** In the event of a bomb threat to a specific facility, University Police will evaluate the threat. If required, exams may be moved to an alternate location, but they will NOT be postponed. UT-Arlington will prosecute those phoning in bomb threats to the fullest extent of the law.

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112-The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled American with Disabilities Act-(ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As faculty members, we are required by law to provide “reasonable accommodation” to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.