

Text: Shriver, D. F. & Atkins, P. W. Inorganic Chemistry, 4th ed., Freeman, New York, 2006.

Instructor: Dr. Ghezai T. Musie

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Office hrs: TR 2:00 – 3:00 p.m.

Class Times: Lecture TR 12:30 – 1:45 pm @ BSE 2.212

Laboratory Section I: W 2:00 – 5:00 p.m.; SB 2.01.24

II: R 2:00 – 5:00 p.m.; SB 2.01.24

Course Objectives: To understand the basic principles of inorganic chemistry applied to the properties, reactions, and periodicity of inorganic elements and compounds.

Prerequisite: CHE 1303 and 1312.

Assignments

Students are responsible for reading the assigned material in the text **before** coming to class and are expected to participate in discussion of that material during class.

Class attendance is essential to good performance in the course. Material may be covered which is not found in the textbook, and different approaches to material may be presented. Students are responsible for getting any lecture notes and assignments which they may miss due to class absences from their colleagues. Any material covered in class or in the reading may appear in examination questions.

Course Grade

The lecture portion of the course will be 80% and the laboratory portion will count 20%. It is necessary to pass the lecture portion in order to pass the course.

Exams: 15 points each and will count 45% towards the final grade; unless notified otherwise, all exams will be in BSE building room 2.212 during the regularly scheduled lecture time, 19:30 – 10:45 a.m.

Exam 1: Thursday, Sept. 16 Exams will cover lecture material and assigned reading and problems. Questions are designed to test
Exam 2: Tuesday, Oct. 19 both your knowledge and ability to use this knowledge to
Exam 3: Thursday, Nov. 18 solve new problems.

Final Examination: A comprehensive final exam will be given on **Wednesday Dec. 8, 2010 from 10:30 – 1:00 p.m.** in BSE 2.212. The final contributes 30% toward the semester grade. The remaining 5% is assigned for a total of five best pop quizzes that will be given during the semester.

Academic Support: I encourage you to utilize the academic support services available to you through the Tomás Rivera Center (TRC) to assist you with building study skills and tutoring in course content. These services are available at no additional cost to you. The TRC has several locations at the Main Campus and is also located at the Downtown Campus. For more information, visit the web site at www.utsa.edu/trcss or call (210) 458-4694 on the Main Campus and (210) 458-2838 on the Downtown Campus.

ADA Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Director of the Disability Services, in Room 2.03.18 Multidisciplinary Studies Building (MS) or call 458-4157.

Notes on Tests and Exams

All tests and exams are to be taken as scheduled. There are **no make-up tests or exams** and **unexcused absences will result in scores of zero.** You must take the final exam in order to achieve the passing grade. Questions about grading must be submitted within **one week** after the results are returned.

Grades

A grading scale will be based on the class average and difficulty of the exams. A separate grading scale will be used for the laboratory portion.

Book in JPL

1. Cotton, F. A.; Wilkinson, G. *Advanced Inorganic Chemistry*, 5th ed. Wiley-Interscience, 1988.
2. Wulfsberg, G. *Principles of Descriptive Inorganic Chemistry*, Brooks/Cole, 1987.
3. Ebbing, D. D. *General Chemistry*, 2nd ed., Houghton-Mifflin, 1987.
4. Greenwood, N. N.; Earnshaw, A. *Chemistry of Elements*, Pergamon, 1984.
5. Masterton, W. L.; Slowinski, E. J.; Stantiski, C. L. *Chemical Principles*, 6th ed., Saunders, 1985.
6. Kaim, W.; Schwederski, B. *Bioinorganic Chemistry*, 1994.
7. Lippard, S. J.; Berg, J. M. *Principles of Bioinorganic Chemistry*, 1994.

Lecture Schedule

<u>Date</u>	<u>Chapter</u>	<u>Topic</u>
Aug. 26 – 31	<i>General Review</i>	Atomic Structure
Sept. 2 – Sept. 9	3 (Sec. 3.1-3.10)	Structures of Simple Solids
Sept. 9 – Sept. 14	8 (all sections) & 19 (Sec. 9.1)	d-Metal Complexes (a) -Structures and Bonding
Sept. 16	Exam I	
Sept. 20 – Sept. 30	8	(a) d-Metal Complexes (b)-CFT & Spectroscopy
Oct. 4 –	8	Nomenclature
– Oct. 11	2 (Sec. 2.3.& 2.4)	Valence Bond Theory
Oct. 11 –	5 (Sec. 5.1-5.14)	Oxidation and Reduction
– Oct. 14	4 (Sec. 4.1& 4.8)	Acids and Bases
Oct. 19	Exam II	
Oct. 26 –	18 (Sec. 18.1- 18.6) & <i>lecture material</i>	General Properties of Metals
– Nov. 2	<i>Handout</i>	Nuclear Chemistry
Nov. 9 –	13 (Sec. 13.1 - 13.12)	Carbon Group
– Nov. 16	14 (Sec. 14.1 - 14.9)	Nitrogen Group
Nov. 16	17 (all sections)	Nobel Gases
Nov. 18	Exam III	

Nov. 25 –

Handout

Bioinorganic Chemistry (a)

– Dec. 2

Handout

Bioinorganic Chemistry (b)