Chemistry 3610 **Inorganic Chemistry**

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CLB 412b
Office Hours: M, period 4, and W, F period 6

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Office Hours: To be determined

Lecture Hours M, W, F Period 5

Textbook Miessler, G. L. and Tarr, D. A., *Inorganic Chemistry 4th Ed.*

Helpful Text Shriver, Atkins, *Inorganic Chemistry, any edition.*
Cotton, Wilkinson, Gauss, *Advanced Inorganic Chemistry*
Cotton, *Chemical Applications of Group Theory*

Grading Exams (best **2** out of **3** exams)
Final Exam (~50% new material: 50% cumulative)
Problem Sets (**10**)

Exam 1, 2, and 3 (1 drop)	200
Problem Sets 10	100
Final Exam	150
Total	450

450-394 A, 393-371 A−, 370-354 B+, 353-336 B, 335-319 B−, 318-302 C+,
301-284 C, 283-267 C−, 266-249 D+, 248-232 D, 231-215 D−, 214-0 E

Explanation for best **2** out of **3**: Often unavoidable life events occur during exam time. Since there are no makeup exams, you will be permitted to drop your lowest score (not the final). If you do poorly on one exam and then later in the semester you miss an exam, the missed exam will be dropped (no exceptions).

Note: you have two weeks to request a re-grade of an exam or problem set. After two weeks the score will be final. Warning: we photocopy exams and problems sets and will check with the copy prior to re-grading.

To review the current UF grade point equivalencies go to:
http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html

Examinations Exams, In–Class: Wednesday, February 1st, Friday March 2nd, and Monday April 11th.
The last lecture will be April 23rd, a review session will be held April 25th.
Final Exam: Friday May 4th, in class 10:00 am – 12:00 pm.

Missed Exams **No make-up exams will be provided.** Arrangements will be made for students that have official UF travel conflicts. Notification and documentation must be provided one week in advance (no exceptions).

Accommodation for Students with Disabilities Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

Lecture Chemistry 3610 will survey modern inorganic/organometallic concepts of bonding, reactivity, and physical properties.

Problem Sets Problem sets will be assigned at intervals of approximately one week. Problem Sets are due at the beginning of class. Problem sets handed in immediately after class but on the same day will be assigned a grade of M (5 pts). Problem sets handed in after the due date will not be graded (0 pts) Solutions will be provided.

Grading: Problem sets will be graded as follows
Satisfactory: S (10 pts)
Marginal: M (5 pts)
Unsatisfactory: U (0 pts)

Satisfactory (S) problems were attempted and there is an obvious understanding of the material demonstrated. (i.e. just attempting a question is not satisfactory)
Marginal (M) grade will be assigned for sloppy work, not attempting a problem, if a significant portion is incorrect.
Unsatisfactory (U) majority of the problem sets is incorrect.

Class Attendance Class attendance is mandatory since some discussion may diverge from the text.

Honesty Policy All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to

be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling.
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

Chemistry 3610: Inorganic Chemistry

Course Information

		Chapter
Section I.	Atomic Structure a) Schrödinger Equation and Solutions b) Electron Configuration c) Periodic Trends	2
Section II.	Molecular Structure and Symmetry a) Lewis Structure b) VSEPR	3
Section III.	Symmetry Expanded a) Symmetry Elements and Operations b) Point Groups c) Character Tables d) Reducible and Irreducible Representations	4
Section IV.	Molecular Orbitals a) Hybridization b) Complications c) Diatomics, Heterodiatomics d) Acid-Base Reactions (MO Predictions)	5, 6
Section VI.	Transition Metal Coordination Compounds a) Coordination Number & Geometries	9
Section VII.	Electronic Spectra of Complexes a) Ligand field Theory b) Low Symmetry c) Metal-Metal Bonds	10, 11
Section VIII.	Substitution Processes a) Lability b) Dissociative & Interchange c) Associative & Interchange	12
Section V.	Solid State Structure a) Crystal Structures b) Defects c) Band Structure	7