Chemistry 3610	**Inorganic Chemistry**
Lecturer	**Adam S. Veige: veige@chem.ufl.edu** 392-9844 **CLB 412b** Office Hours: T, R period 6, W period 5
Teaching Assistants	Ushnish Mandal, ushnish11081@chem.ufl.edu (**TBA**) Yu-Hsuan Shen, yuhsuan.shen@chem.ufl.edu (**TBA**)
Lecture Hours	Period 4 - 5 (10:40 AM - 12:35 PM) Period 5 (11:45 AM - 12:35 PM)
Textbook	Miessler, G. L. and Tarr, D. A., *Inorganic Chemistry 5th Ed.*
Helpful Text	Shriver, Atkins, *Inorganic Chemistry, any edition.* Cotton, Wilkinson, Gauss, *Advanced Inorganic Chemistry* Cotton, *Chemical Applications of Group Theory*

Course Learning Objectives

1) Understand the composition of atoms
2) Gain a working knowledge of symmetry and group theory
3) Apply group theory to solving the electronic structure of inorganic complexes
4) Apply group theory to understanding the spectroscopy of inorganic complexes
5) Students will learn to draw, recognize, and assign the 3-dimensional structure of inorganic complexes
6) Students will understand the interaction between ligands and metal centers
7) Students will learn the reaction mechanism of coordination complexes and apply kinetics and solve rate equations
8) Students will assimilate new knowledge and apply it towards solving problems centered on inorganic structure and bonding and the physical properties of coordination complexes

Grading

Exams (best **2** out of **3** exams)
Final Exam (conceptually cumulative, emphasis on material covered since the third exam)
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:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Examinations

Exams, In–Class: Thursday January 31st, Thursday February 28th, and Tuesday April 2nd.
Final Exam: Thursday May 2 @ 12:30 PM - 2:30 PM.

Conflict Exams

CHM 3610 manages all conflicts with scheduled assessments and examinations in accordance with University policy. Unavoidable absences by students from examinations are allowed if properly documented and disclosed to the instructor at least one week prior to the anticipated conflict. Permitted absences may include, but are not limited to: religious observances, sanctioned sporting events, and other UF exams if the other course has a higher course number than CHM 3610. In all such cases, students will be given the opportunity to take a conflict exam, which takes place shortly before the scheduled assessment for the class.

No exams will be administered to absent students for a grade after the established and scheduled exam time.

Unpredicted absences due to medical illness are not covered under the above conflict exam policy. If the time and severity of the illness is severe enough to make continuation in scholastic activity impossible for the rest of the term, a medical withdrawal is strongly advised. If needed, please consult the Dean of Student's Office

for policy and procedural advice on medical withdrawal.

If a medical condition resulting in the student's absence during a scheduled exam is unexpected, relatively minor, and can be recovered from relatively soon, we request that the student -- as soon as he or she is healthy, which is our first concern -- provide verifiable documentation of the medical condition to the course instructor within a timely fashion of the scheduled exam.

Accommodation for Students with Disabilities

"Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester

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.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance) and require appropriate documentation.

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.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html

Campus Resources:

Health and Wellness

U Matter, We Care:
If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

Academic Resources

E-learning technical suppor*t*, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. https://www.crc.ufl.edu/.

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall*,* 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus*:*
https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

Feedback

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/

Chemistry 3610: Inorganic Chemistry
Course Information

Chapter 2. Atomic Structure

Chapter 3. Simple Bonding Theory

Chapter 4. Symmetry and Group Theory

Chapter 5. Molecular Orbitals

Chapter 6. Acid-Base and Donor Acceptor Chemistry

Chapter 9. Coordination Chemistry I: Structure and Isomers

Chapter 10. Coordination Chemistry II: Bonding

Chapter 11. Coordination chemistry III: Electronic Spectra

Chapter 12. Coordination chemistry IV: Reaction Mechanisms

Chapter 13. Organometallic Chemistry