Course	**CHEM 3341, Inorganic Chemistry**
Professor	Dr. John W. Sibert
Term	Fall 2023
Meetings	MWF 10:00–10:50, SCI 3.250

Professor's Contact Information

Office Phone	972-883-2918 (goes directly to email)
Office Location	Berkner Hall (BE), room 3.520
Office Hours	M, 3:00 – 4:00 PM, T, 1:00 PM – 2:00 PM or when my door is open
Email Address	sibertj@utdallas.edu
Other Information	Best way to contact me: email listed above or stop by my office

General Course Information

Course Description	Survey of inorganic chemistry with emphasis on the modern concepts and theories of inorganic chemistry including electronic and geometric structure of inorganic compounds. Topics address contemporary physical and descriptive inorganic chemistry
Learning Outcomes	*Objectives* The goal of this course is to provide students with a thorough foundation in atomic structure, periodicity, bonding and symmetry with subsequent extension of these basic principles to acid/base, solid state and coordination chemistry. Students will develop an understanding of the elements and the ability to predict the structures, certain properties and reactivities of a range of representative ionic and covalent compounds. *Expected Learning Outcomes* Upon successful completion of this course, students will therefore: 1. Be able to explain atomic structure and bonding using currently accepted theories. 2. Be able to use group theory to describe molecular orbital diagrams and molecular properties. 3. Be able to integrate knowledge of atomic structure with the structure and properties of ionic and molecular compounds. 4. Be able to explain the history, bonding and properties of representative main group elements, coordination and organometallic compounds
Texts and Materials	1. *REQUIRED: Inorganic Chemistry, 5th Edition* by Gary L. Miessler, Paul J. Fischer and Donald A. Tarr 2. *RECOMMENDED: Molecular Symmetry and Group Theory, 2nd Edition* By Alan Vincent 3. course materials located on class site at eLearning: http://elearning.utdallas.edu/

Schedule

UNIT 1
Coverage: Atoms and Simple Bonding Theory (Chapters 1, 2, 3, and 4.1)

EXAM date: Wednesday, September 13

UNIT 2
Coverage: Symmetry and Molecular Orbital Theory (Chapters 4 and 5)

EXAM date: Wednesday, October 11

UNIT 3
Coverage: Descriptive Solid State and Coordination Compounds (Chapters 7 and 9)

EXAM date: Wednesday, November 1

UNIT 4
Coverage: Coordination, Organometallic and Bioinorganic Chemistry (Chapters 10, 11*, 12, 13*, 14* and 16*)

EXAM date: Wednesday, December 7

***Partial coverage of the chapter material**

FINAL EXAM: TBA (date and time determined by UTD)

Course Policies

Course Evaluation	(i) Quizzes (Take Home/In Class) 20% (ii) Midterm Exams (4 x 16%) 64% (iii) Final Exam 16%* ***Note: The final exam grade will replace your lowest regular exam grade if higher.** *(i) Quizzes:* In most cases, quizzes will be announced one lecture in advance and may be in the form of individual exercises, group activities or take-home problems. ***There will be no makeup quizzes given*** *(you will receive a "zero" for any quiz you miss).* Your one lowest quiz grade will be dropped. *Homework:* Homework will be assigned from each chapter and be supplemented by assignments written by Dr. Sibert. It may be collected for a grade. If so, you will be told at the time the assignment is given. *(ii) Midterm exams:* Each must be taken on the listed exam date in class. *(iii) Final Exam:* The final exam must be taken, will be comprehensive, and cannot be replaced by any other grade, so don't miss it. ***No makeup final will be given***.
Make-up Exams	There are **no make-up exams** (see above).
Extra Credit	There is **no extra credit**.
Class Attendance	Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty.
UT Dallas Syllabus Policies and Procedures	The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus: http://go.utdallas.edu/syllabus-policies Policies covered include: student conduct and discipline, academic integrity, copyright notice, email use, student grievance procedures, and religious holy days. Additional information regarding some of these topics is included in related sections below.
Academic Integrity	The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. *Scholastic Dishonesty*: Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, submitting for credit any work or materials that are attributable in whole or in part to another person, taking an examination for another person, or any act designed to give unfair advantage to a student or the attempt to commit such acts.
Withdrawal from Class	The administration at UT Dallas has established deadlines for withdrawal from any course. These dates and times are published in the Comet Calendar (http://www.utdallas.edu/calendar) and in the Academic Calendar (http://www.utdallas.edu/academiccalendar). It is the student's responsibility to handle withdrawal requirements from any class. In other words, a professor or another instructor cannot drop or withdraw any student unless there is an administrative drop such as the following: • Not meeting the prerequisites for a specific course • Not satisfying the academic probationary requirements, resulting in suspension • An Office of Community Standards and Conduct request • Not making appropriate tuition and fee payments • Enrollment is in violation of academic policy • Not admitted for the term in which they registered It is the student's responsibility to complete and submit the appropriate forms to the Registrar's Office and ensure that he or she will not receive a final grade of "F" in a course if he or she chooses not to attend the class after being enrolled.

Incomplete Grades	As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.
Office of Student AccessAbility (OSA)	It is the policy and practice of UT Dallas to make reasonable accommodations for students with properly documented disabilities. If you are a student with a disability and believe you will need academic accommodations for this class, you are encouraged to register with the Office of Student AccessAbility (OSA). Some aspects of the course, the assignments, the in-class activities, and the way the course is typically taught may be accommodated to facilitate your participation and progress. OSA will assist you in determining academic accommodations that are appropriate for your situation. Any information you provide is private and confidential and will be treated as such. To avoid any delay, please contact OSA as soon as possible. Please note that accommodations are not retroactive, and disability accommodations cannot be provided until an OSA Letter of Accommodation has been given to the instructor. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact OSA for a confidential discussion. OSA is located in the Administration Building, AD 2.224 They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu

These descriptions and timelines are subject to change at the discretion of the Professor.