

CHM 6621: Inorganic Reaction Mechanism & Energetics

Spring 2021 **Location: CCB 221** **T 1:55–3:50PM** **R 3:00–3:50PM**

Instructor: Leslie Murray

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Office Hours: TR 1:00-2:00PM

Course Description and Objective

To provide training in the theoretical concepts underlying fundamental and contemporary organometallic chemistry.

Required Text

Jordan, Robert B., *Reaction Mechanisms of Inorganic and Organometallic Reactions*, 3rd Ed.

Strongly Recommended Text

Hartwig, John F., *Organotransition Metal Chemistry From Bonding to Catalysis*, 1st Ed.

Recommended or Reserve Texts

1. Albright, T. A., Burdette, J. K., and Whangbo, M.-H. *Orbital Interactions in Chemistry*, 2nd Ed.
2. Rorabacher, D. B. and Endicott, J. F., *Mechanistic Aspects of Inorganic Reactions*
3. Basolo, F. and Pearson, R. G., *Mechanisms of Inorganic Reactions*
4. Langford, C. H. and Gray, H. B., *Ligand Substitution Processes*
5. Wilkins, R. G. *Kinetics and Mechanism of Reactions of Transition Metal Complexes* 2nd Ed.
6. Espenson, J. H., *Chemical Kinetics and Reaction Mechanisms*, 2nd Ed.

Grades

Grades will be based on

Exam #1: 125 points

Exam #2: 125 points

Final/Exam #3: 200 points

Problem Sets: 50 points

Total: 500 points

For information on UF's Grading Policy, see:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html> and

<http://www.isis.ufl.edu/minusgrades.html>

Problem Sets

Over the course of the semester between five (5) and ten (10) problem sets will be assigned. Typically, these homework assignments will be assigned on the last day of class for that particular week, and due at the beginning of the next class period. Problem sets are open-notes and open-book. You are encouraged to work on problem sets in groups, but you will need to be prepared to explain solutions to all problems individually at the board in class. Problems sets will be graded S/U, with S being full marks for the assignment and U being zero marks for the assignment.

Exams

Exams cover all lectures and reading assignments. It is the student's responsibility to ask questions if they do not understand lecture or reading materials. Exams will be in-class and held regular class meeting time. Make-up exams will only be provided in the event of an approved absence (e.g., conference attendance) or under extraordinary circumstances (e.g., medical emergencies). See the university guidelines on absence for more information.

Attendance and Absence Policy

Attendance will not be included in student assessment but is **strongly** advised as the in-class discussion may diverge from the text.

Academic Honesty

Students are required to be honest in their coursework. Any act of academic dishonesty will be reported to the Dean of Students, and may result in failure of the assignment in question and/or the course. For University of Florida's honor code, see <http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php>.

Accommodations for Students with Disabilities

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Contact the Disability Resources Center (<http://www.dso.ufl.edu/drc/>) for information about available resources for students with disabilities.

Other Resources: U Matter, We Care

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.