

Chemistry 301: Inorganic Chemistry
Professor Laurel Goj Habgood
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Required Texts:

Inorganic Chemistry, 5th Ed., Catherine E. Housecroft & Alan G. Sharpe ISBN 978-1-292-13414-7

Office Hours:

Wed. 9:30 – 11:00 am Thur. 3:00 – 4:30 pm by appointment

Course Expectations and Evaluations:

- The primary goals of this course are an understanding of the fundamentals of inorganic chemistry, enhancing the ability to read and analyze the chemical literature, and the understanding of modern laboratory techniques utilized by inorganic chemists. The class is designed to be more of a collaborative learning experience rather than a solely lecture based course. Therefore, attendance and participation in this class is expected.
- All items are due by the date/time noted on the assignment with a 10% late penalty assessed within the first 24 hours. *Assignments received more than 24 hours after the due date/time will not be graded, earning an automatic 0.* In the event of Fox Day, the assignment will be due the next day by 5:00 pm or the quiz will be given in the next class.
- Makeup examinations will only be provided on two occasions: a written excuse from a physician or a school-related absence. If you know that you will be unable to attend the exam you are required to notify me prior to the exam so that appropriate arrangements may be made. All exams, including the final, must be completed by the end of the next business day of the original test date and time.
- All test-taking accommodations requested for this course must first be approved through the Office of Accessibility Services Office (OAS) and scheduled online through Accommodate at least 72 hours before the exam. We highly recommend making all testing accommodations at the beginning of the semester. OAS staff are available to assist with this process.
- All regrades (except mathematical errors) must be submitted within one week of the return of the assignment.

Problem Sets (100 pts) – Jan. 28, Feb. 25, Mar. 25, Apr. 8, 22

Literature Condensation and Commentary (80 pts) – Draft P1 Feb 14, P1 1 Feb 26, P2 Mar 28

Quizzes (120 pts) – Feb. 3, Mar. 8, Apr. 14 | Final Exam (60 pts) – May 2 (11:00 am OR 2:00 pm)

Collaboration/Participation (40 pts) – Feb. 3, Mar. 8, Apr. 14

Laboratory (100 pts) – for Laboratory expectations and evaluations refer to Dr. Mosby's syllabus.

The maximum number of points is 500. The percentages for the corresponding letter grades are below.

A (100-93) A- (92.9-90) B+ (89.9-87) B (86.9-83) B- (82.9-80)
C+ (79.9-77) C (76.9-73) C- (72.9-70) D (69.9-60) F (59.9-0)

Time Estimates and Topics:

Jan. 11 Basic Atomic and Molecular Concepts (Chpt. 1,2)
Jan. 18 Molecular Concepts and Symmetry (Chpt. 2, 3)
Jan. 25 Molecular Symmetry and Experimental Techniques (Chpt. 3, 4)
Feb. 1 Experimental Techniques (Chpt. 4), Quiz 1
Feb. 8 Bonding in Diatomic and Polyatomic Orbitals (Chpt. 2, 5)
Feb. 15 Bonding in Polyatomic Orbitals (Chpt. 5)
Feb. 22 Metallic and Ionic Solids (Chpt. 6)
Mar. 1 Acids and Bases, Redox Chemistry (Chpt. 7, 8, 9)
Mar. 8 Quiz 2, Transition Metal Complexes (Chpt. 19)
Mar. 15 Spring Break
Mar. 22 Transition Metal Complexes (Chpt. 20)
Mar. 29 Organometallic Complexes (Chpt. 24)
Apr. 5 Catalysis (Chpt. 25)
Apr. 12 Reaction Mechanisms (Chpt. 26), Quiz 3
Apr. 19 Materials Chemistry, Bioinorganic Chemistry (Chpt. 28, 29)
Apr. 26 Review

College policies about Absences, the Academic Honor Code, Accessibility Services, Credit Hour, Recording Device Use, and Title IX can be found on the syllabus posted in Canvas.

College Policies

<https://rpublic.rollins.edu/sites/ASCPS/SitePages/Syllabi%20Statements.aspx>

COVID-19 Guidelines for Spring 2022

The College has worked to create a classroom experience that remains dynamic and engaging while also considering health and safety. All classrooms will have a minimum of three feet between students.

In the classroom, students must wear masks fully covering their noses and mouths; neck gaiters and bandanas are not acceptable. Because students' mouths and noses must remain fully covered, there will be no eating or drinking allowed in the classroom. Students should not adjust the classroom configuration, as each classroom has been set up specifically to meet physical distancing guidelines.

Students who are not in compliance with these classroom guidelines laid out by the College will be given an opportunity to comply by their instructor. If a student fails to comply when asked, the faculty member will ask the student to leave the classroom. If the student fails to leave the classroom, the faculty member may contact Campus Safety and dismiss the class. The College asks that students do not put their faculty members and fellow classmates in this situation, and instead simply comply with the guidelines as asked. Students who do not follow the College guidelines to create a safe classroom experience may be charged with a violation of the Requests or Orders policy.

Absences – Attendance Policy

Isolation/Quarantine (Temporary, Spring 2022)

In Fall 2021, the College aims to accommodate students who are isolated or quarantined due to COVID-19 exposure or infection, in order to minimize the potential spread of COVID-19 among the College's students, faculty, and staff.

Students who must miss class due to COVID-19 isolation or quarantine orders will not have their course grade negatively affected by these absences. Faculty will be notified of these absences by college officials. Students who receive their diagnosis or quarantine order from off-campus health care providers must contact the Wellness Center to have these absences communicated to faculty. Students are reminded that lying to a faculty or staff member is considered a violation of the Academic Honor Code. Students remain responsible for all assigned work and will consult with instructors on the means of accommodation.

Students who miss class for reasons other than isolation/quarantine will be held to the terms of the instructor's attendance and participation policy as stated in the course syllabus.

Excessive absences from class due to isolation/quarantine or other reasons can result in the student being unable to meet all of the learning objectives for a course. In such cases, students will consult with the Office of Student and Family Care to explore options such as a medical leave, incomplete course contract, or withdrawal from the course.

College Related Business

Students are expected to meet faculty expectations for class attendance. It is the responsibility of the faculty to publish attendance policies for their courses in the course syllabus. If a distinction is made between “excused” absences and “unexcused” absences, it must be conveyed in the attendance policy. At the instructor’s discretion, a student’s grade may be lowered for failure to comply with the attendance policy. Exceptions exist for absences owing to college related business. If a student will miss a class because of participation in college related business, then the student must confer with their instructor as to how and when the make-up work will be done, which includes the possibility of turning work in early. The instructor may not lower a student's participation or attendance grade in the course due to absences resulting from college related business. Instructors need to provide reasonable accommodations for excused absences regarding due dates for assignments and make-up exams whenever possible.

A student will not fail a course because the number of college related business absences exceed the number of absences allowed, except if excessive absences make it impossible to fulfill the learning objectives of the course. In regard to absences due to college related business, students must notify the instructor of an upcoming absence as soon as they are aware of the conflict and obtain an approval. Irrespective of attendance, students remain responsible for all assigned work in the course or instructor approved alternatives. It is the student’s responsibility to discuss with their professor how and when make-up work should be completed before missing class.

The following are considered excused absences:

- participation in Rollins sanctioned varsity competitions (e.g., NCAA athletics, UN and Debate)
- participation in special academic events (e.g., academic conferences accompanied by a faculty or staff from college, project competitions)
- participation in official college business (e.g., student representatives attending meetings related to college governance, admissions recruitment trips, college performances, co-curricular field trips)

All absences are excused at the discretion of the faculty.

Religious Holidays

It is the responsibility of the faculty to publish attendance policies for their courses in the course syllabus. If a distinction is made between “excused” absences and “unexcused” absences, it must be conveyed in the attendance policy. At the instructor’s discretion, a student’s grade may be lowered for failure to comply with the attendance policy. Exceptions exist for absences owing to religious observances. If a student will miss a class because of religious observance, then the student must confer with their instructor as to how and when the make-up work will be done, which includes the possibility of turning work in early. The instructor may not lower a student's participation or attendance grade in the course due to absences for religious observance. Instructors need to provide reasonable accommodations for excused absences regarding due dates for assignments and make-up exams whenever possible.

A student will not fail a course because the number of religious observances exceed the number of absences allowed, except if excessive absences make it impossible to fulfill the learning objectives of the course. In regard to absences due to religious observances, students must notify the instructor of an upcoming absence as soon as they are aware of the conflict. Irrespective of attendance, students remain responsible for all assigned work in the course or instructor approved alternatives. It is the student’s responsibility to discuss with their professor how and when make-up work should be completed before missing class.

Students who need assistance in communicating absences due to religious holiday observance should consult with the Office of Student and Family Care, the Dean of Religious Life, or the appropriate academic dean.

Academic Honor Code Reaffirmation

<http://www.rollins.edu/honor-code/documents/academic-honor-code-rollins-college.pdf>

Membership in the student body of Rollins College carries with it an obligation, and requires a commitment, to act with honor in all things. The student commitment to uphold the values of honor - honesty, trust, respect, fairness, and responsibility - particularly manifests itself in two public aspects of student life. First, as part of the admission process to the College, students agree to commit themselves to the Honor Code. Then, as part of the matriculation process during Orientation, students sign a more detailed pledge to uphold the Honor Code and to conduct themselves honorably in all their activities, both academic and social, as a Rollins student. A student signature on the following pledge is a binding commitment by the student that lasts for his or her entire tenure at Rollins College.

The development of the virtues of Honor and Integrity are integral to a Rollins College education and to membership in the Rollins College community. Therefore, I, a student of Rollins College, pledge to show my commitment to these virtues by abstaining from any lying, cheating, or plagiarism in my academic endeavors and by behaving responsibly, respectfully and honorably in my social life and in my relationships with others. This pledge is reinforced every time a student submits work for academic credit as his/her own. Students shall add to the paper, quiz, test, lab report, etc., the handwritten signed statement:

"On my honor, I have not given, nor received, nor witnessed any unauthorized assistance on this work."

Material submitted electronically should contain the pledge; submission implies signing the pledge.

Citation Expectations

As per the Academic Honor Code, plagiarism is defined as "Offering the words, facts, or ideas of another person as your own in any academic exercise." In order to avoid plagiarism, all students are expected to use proper citation norms. For our course, all assignments will use ACS (American Chemical Society) citation style.

Accessibility Services

Rollins College is committed to equal access and inclusion for all students, faculty and staff. The Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 create a foundation of legal obligations to provide an accessible educational environment that does not discriminate against persons with disabilities. It is the spirit of these laws that guides the college toward expanding access in all courses and programs, utilizing innovative instructional design, and identifying and removing barriers whenever possible.

If you are a person with a disability and anticipate needing any type of academic accommodations in order to fully participate in your classes, please contact the Office of Accessibility Services, located on the first floor of the Olin Library, as soon as possible. You are encouraged to schedule a Welcome Meeting by filling out the "First Time Users" form on the website:

<https://www.rollins.edu/accessibility-services> and/or reach out by phone or email: 407-975-6463 or Access@Rollins.edu.

All test-taking accommodations requested for this course must first be approved through the Office of Accessibility Services (OAS) and scheduled online through *Accommodate* **at least 72 hours before the exam**. Official accommodation letters must be received by and discussed with the faculty in advance. There will be no exceptions given unless previously approved by the OAS with documentation of the emergency situation. We highly recommend making all testing accommodations at the beginning of the semester. OAS staff are available to assist with this process.

Emergency Management

In case of emergency, the Rollins “R-Alert” emergency notification system will be activated. Students are encouraged to maintain updated contact information in the R-Alert portion in Foxlink. In addition, students should become familiar with the Emergency Response Protocols in each classroom, and visit the Rollins Emergency Website for emergency notifications and related resources.

Recording Device Use

In order to protect the integrity of the classroom experience, the use of recording devices is limited to either the expressed permission of the faculty member or with proper documentation from the Office of Accessibility Services. Information about accommodations through Accessibility Services can be found at <http://www.rollins.edu/accessibility-services/>. Recording without the proper authorization is considered a violation of the Rollins Code of Community Standards.

Title IX Statement

Rollins College is committed to making its campus a safe place for students. If you tell any of your faculty about sexual misconduct involving members of the campus community, your professors are required to report this information to the Title IX Coordinator. Your faculty member can help connect you with the Title IX Coordinator, (TitleIX@rollins.edu or 407.691.1773). You will be provided with information, resources and support. If you would prefer to speak to someone on campus confidentially, please call the Wellness Center at 407.628.6340. They are not required to report any information you share with the Title IX Coordinator.

Misconduct under Title IX includes gender-based discrimination and harassment, sexual harassment, sexual violence including fondling and assault, sexual coercion/force, sexual-based communication, sexual exploitation, interpersonal violence including dating and domestic violence, stalking, complicity and retaliation. Everyone is protected under the following protected statuses: sex (including pregnancy), gender, gender identity (including transgender status), gender expression, and sexual orientation. For information, visit <https://www.rollins.edu/sexual-misconduct/>.