

CH340 - 01

“Science is a way of thinking much more than it is a body of knowledge”

Carl Sagan, Ph. D.

Contact Information

Profs. Kerr & Andreatta

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Offices:

Kerr – ST410C

Andreatta – ST410D

Course Information

MWF 8:30am - 9:30 am

All lectures are in ST405

Office Hours:

Kerr: M 2:00-3:00, T 2:00-3:00, W

11:30-12:20

Andreatta:

M 10:30 – 11:30

W 11:30 – 12:30

TR 1:30 – 2:30



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Texts & Materials:

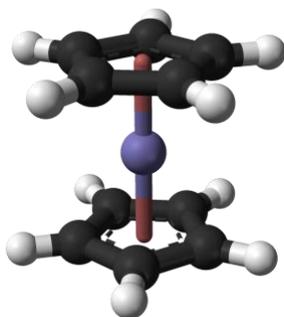
Gary L. Miessler, Paul J. Fischer, and Donald A. Tarr, Inorganic Chemistry, 5th ed. Pearson, 2014. ISBN: 0-321-81105-4

Scientific calculator (not necessarily a graphing calculator). Cell phone calculators will not be permitted for use during in class assignments or exams.

Access to and regular checking of Blackboard course site.

Course Description:

This course is a survey of the chemistry of the inorganic elements focusing on the relationship between electronic structure, physical properties, and reactivity across the periodic table. Topics to be covered include: atomic structure, chemical bonding, group theory, spectroscopy, crystal field theory, coordination chemistry, organometallic chemistry and catalysis, and bioinorganic chemistry. **Prerequisites:** Successful completion of CH120, CH121, (with a C- or better) and CH 301 (suggested)

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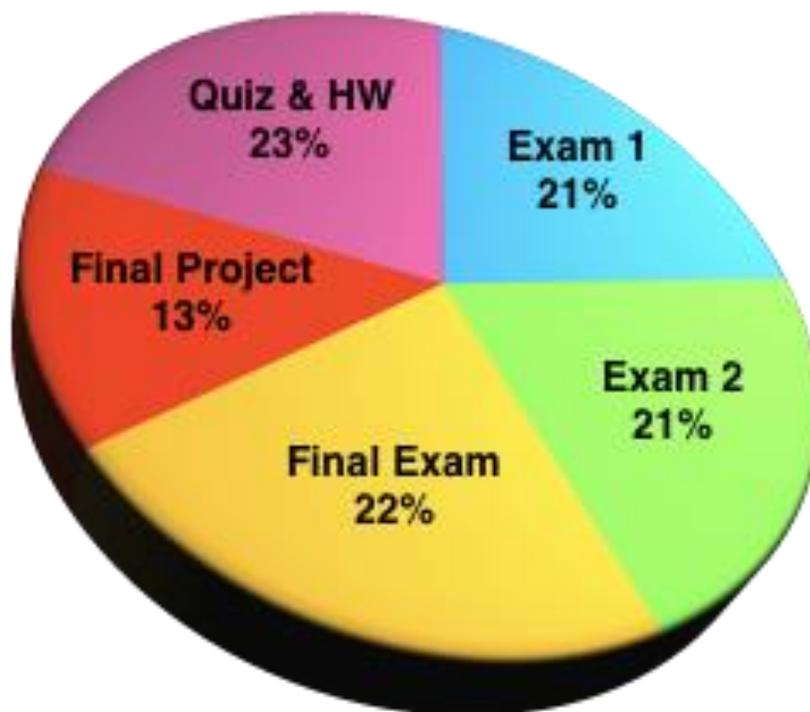
Student Learning Objectives:

During this course the student will:

- Use concepts from quantum theory to explain periodic trends in atomic and chemical properties
- Identify and use the symmetry operations and the point group of a molecule
- Name and predict structure and bonding of simple inorganic molecules
- Use symmetry and group theory to understand bonding and spectroscopic properties of inorganic molecules
- Discuss and critique the key points of an article from the primary inorganic literature

Grading:

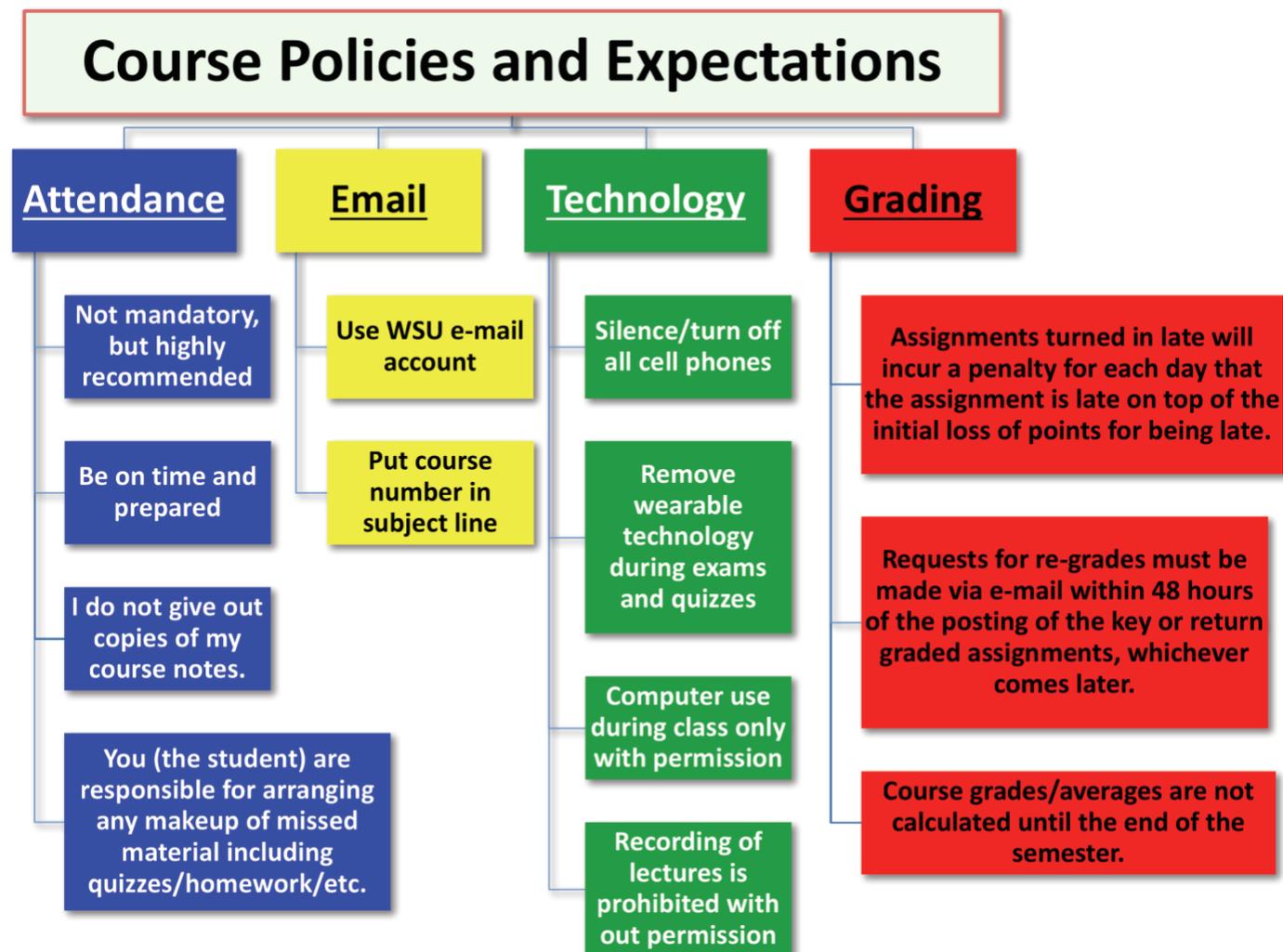
The final grade in this course will be based upon 2 in-class exams, a comprehensive final exam, an additional assignment involving the review of topics and use of the primary chemical literature.



Weighted Average	Letter Grade	Weighted Average	Letter Grade
≥ 93.0	A	73.0 - 76.9	C
90.0 - 92.9	A-	70.0 - 72.9	C-
87.0 - 89.9	B+	67.0 - 69.9	D+
83.0 - 86.9	B	63.0 - 66.9	D
80.0 - 82.9	B-	60.0 - 62.9	D-
77.0 - 79.9	C+	≤ 59.9	E

You are responsible for calculating weighted averages to determine your grade throughout the semester. I do not calculate course averages until the end of the semester.

Quizzes & Homework are given to ensure that you are keeping with the material and to identify any problem topics. It is my way of ensuring that you are keeping up with the course material and working the suggested problems at the end of each chapter. You should **NOT** be cramming the night before, but instead do a few problems each day.



Department Excused Absence Policy:

If you must miss an exam for a *serious* and *legitimate* reason, please notify your instructor ***in advance*** so that suitable arrangements can be made. Documentation in the form of a doctor's note or an official alternative is required to give a make-up for an exam. LIMIT: 1 EXCUSED ABSENCE IN ONE SEMESTER. If you find that you have an ongoing condition or issue, you will need to provide detailed documentation and work with the Dean's office or the Disability Services Office to get accommodations. Each instructor will provide excused absence policies for quizzes and homework assignments. Please visit your syllabus for this information.

Academic Support Services:

Students who need academic assistance in order to achieve their educational objectives should visit the Academic Success Center as soon as possible to maximize the benefit of the service.

Library Use – from College Wide Library Advisory Committee:

Worcester State Library has access to many articles through online data bases including J-STOR, in addition many articles and book chapters are available to students through Inter-Library Loan (ILL). With a little planning, ILL expands your ability to get credible information sources about topics you pursue in your course work. Finally WSU students are free to use many of the library resources within the consortium. Given all of these resources it is extremely unlikely that you should have to pay for access to individual articles. Please work with the reference librarians to find the appropriate way to access materials you need. You have already paid for these resources through your fees— please make use of them.

Academic Honesty Policy:

My take on it: *It is important to avoid the appearance and the reality of cheating!*

Academic integrity is an essential component of a Worcester State education. Education is both the acquisition of knowledge and the development of skills that lead to further intellectual development. Faculty are expected to follow strict principles of intellectual honesty in their own scholarship; students are held to the same standard. Only by doing their own work can students gain the knowledge, skills, confidence and self-worth that come from earned success; only by learning how to gather information, to integrate it and to communicate it effectively, to identify an idea and follow it to its logical conclusion can they develop the habits of mind characteristic of educated citizens. Taking shortcuts to higher or easier grades results in a Worcester State experience that is intellectually bankrupt.

Academic integrity is important to the integrity of the Worcester State community as a whole. If Worcester State awards degrees to students who have not truly earned them, a reputation for dishonesty and incompetence will follow all of our graduates. Violators cheat their classmates out of deserved rewards and recognition. Academic dishonesty debases the institution and demeans the degree from that institution.

It is in the interest of students, faculty, and administrators to recognize the importance of academic integrity and to ensure that academic standards at Worcester State remain strong. Only by maintaining high standards of academic honesty can we protect the value of the educational process and the credibility of the institution and its graduates in the larger community.

EXAM DATES:

Exam 1: Fri. Feb. 22

Exam 2: Fri. Apr. 5

Final Project:

Monday, May 6th

8:30

Final Exam:

Friday, May 10th

8:30 am

ST405

AVENGERS UNITE!



We, as the instructors, reserve the right to modify this document at any time as deemed appropriate by us and/or WSU.