Chemistry of the Elements – 4276
CHEM 2131 Section 4
Spring Quarter, 2017

Welcome to Chemistry of the Elements! This course will generally focus on inorganic chemistry. Topics covered include coordination, descriptive, nuclear, and electrochemistry as well as a survey of the transition metals.

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Lecture & Recitation: T/R 8:00 a.m. – 9:30 a.m. F.W. Olin Hall, Room 105

Office Hours: By appointment. Please e-mail me at least one day in advance.

Textbooks: (1) **S:** eBook - *Chemistry: The Molecular Nature of Matter and Change*, 7th Edition, Silberberg, McGraw-Hill

(2) **OS:** *Chemistry OpenStax College*, Free online resource found at:
https://openstaxcollege.org/textbooks/chemistry

(3) **CW:** ChemWiki through UC Davis' *The Chemistry LibreText*, Free online resource found at:
https://chem.libretexts.org
Links to readings will be posted on Canvas throughout the course.

Exams: There will be two 90-minute exams during the quarter worth 100 points each. The final exam will also be worth 100 points. If your final exam score is higher than either 90-minute exam score, the lowest score will be dropped and the final will count for 200 points. ***There will be no makeup exams. If you miss an exam for any reason, that exam will be dropped and the final will count for 200 points. The final exam is not optional.***

Homework: There will be periodic homework assignments posted on Canvas. Due dates will be announced when the assignments are posted. These assignments are worth 100 total points in the calculation of your final grade.

Final Grade: Your final letter grade will be determined out of 400 points and will be curved appropriately based on overall class performance. ***Exams*** = 300 points; ***Homework assignments*** = 100 points

Calculator: An inexpensive calculator that has the capabilities for square roots, logarithms, and (exponential) scientific notation operations is required.

Lectures: I will cover material on the white board and PowerPoint. I would recommend bringing at least 3 colored pens/pencils to class. ***I will post PowerPoint slides but not white board notes on Canvas. If you miss a lecture, please see a classmate for the white board notes.***

Canvas: The University of Denver has transitioned from Blackboard to the Canvas learning management system. You may log in to https://du.instructure.com with your DU ID number and PioneerWeb (WebCentral) password to access the course. Here are some helpful Canvas resources to get you started:

Canvas Student Quickstart Guide: http://guides.instructure.com/m/8470
Canvas Student Guide: http://guides.instructure.com/m/4212

Academic Integrity: I have high expectations for each and every one of you as students at the University of Denver. While I encourage group study sessions outside of class, I expect you to work independently during homework assignments and in class examinations. Any deviations from this policy will not be tolerated. For more information, please see the University of Denver's official Honor Code at: http://www.du.edu/studentlife/studentconduct/

Science and Engineering Center: Need extra help? The Science and Engineering Learning Center is a collaborative space staffed by undergraduate and graduate learning assistants (LAs) trained to assist students with some first and second year biology, chemistry, physics, computer science and engineering courses. We offer support for both lecture and laboratory courses for chemistry, physics, and engineering courses and lecture only for computer science and biology. Our goal is to help students grow as problem solvers by assisting with homework sets, lab reports, and preparing for exams. The Science and Engineering Learning Center is **not** a one-on-one tutoring center, but is rather a support system where students can get guidance from LAs as well as their peers. This center is open to all DU students. All services are free. Located in the north-west corner of the first floor of the Anderson Academic Commons (west of the writing center). See http://portfolio.du.edu/sec for a complete schedule. Please also follow on Twitter for the most up-to-date announcements: **@SELCatDU**

Preliminary Course Schedule – Subject to Change

Week #: Start Date	**Topic**	**Weekly Reading Assignments***
1: 03/28/17	Acids and Bases Coordination Chemistry	**OS**: 15.2; 19.1 – 19.2 **CW** **S:** 18.9; 23.1 – 23.3
2: 04/04/17	Structure and Isomerism Coordination Bonding Theory	**OS**: 19.2 – 19.3 **CW** **S:** 23.1 – 23.4
3: 04/11/17	Crystal Field Theory Magnetic & Spectroscopic Properties Applications of Coordination Compounds	**OS**: 19.3 **CW** **S:** 23.4
4: 04/18/17	Bioinorganic Applications Properties of Solids **EXAMINATION I on Thursday, 4/20/17 (material through 4/18/17)**	**CW**
5: 04/25/17	Solid State Chemistry Periodic Trends	**OS**: 6.5 **CW**
6: 05/02/17	Periodic Table Survey Nuclear Chemistry	**OS**: 21.1 – 21.5 **CW**
7: 05/09/17	Reduction and Oxidation Electrochemistry Group 1A: Alkaline Metals	**OS**: 17.1 – 17.6 **CW** **S:** 21.1 – 21.7
8: 05/16/17	Group 2A: Alkaline Earth Metals **EXAMINATION II on Thursday, 5/18/17 (material through 5/9/17)**	**CW**
9: 05/23/17	Group 3A and 4A Elements Group 5A and 6A Elements	**CW**
10: 05/30/17	Halogens and Noble Gases **Course Review**	**OS**: 9.1 – 9.4 **CW**
06/06/17	**FINAL EXAM (cumulative)**	

***Include the last section listed (e.g., read as 19.1 through 19.2 for week 1 OS)**

CW indicates an additional reading assignment is posted on Canvas from this resource