Syllabus CHM 3610 Inorganic Chemistry

Summer 2016

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Office hours: CLB 412, Monday, Tuesday, Wednesday 11:00-12:00 and by appointment.

#### TAs:

SuKyung Jeon, sukyungj@chem.ufl.edu, Office hours: Wednesday, 2-4; Thursday, 1-3 Pratik Roy, pratik5510@chem.ufl.edu, Office hours: Wednesday, 1-3; Thursday, 3-5 Khushboo Sinha, khushboo.pcs123@chem.ufl.edu, Office hours: Wednesday, 4-6, Thursday, 11-1

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**Objective:** To introduce general concepts of inorganic chemistry.

## **Textbook and Readings:**

Miessler, Fischer, Tarr Inorganic Chemistry, Fifth Edition, Pearson, 2014 ISBN-13:987-0-321-1105-9

Supplementary Texts: Additional readings will be made available on the UF e-learning site: https://lss.at.ufl.edu/

G. Wulfsberg "Inorganic Chemistry" University Science Books, 2000 Atkins et al. "Inorganic Chemistry" 5<sup>th</sup> Edition; Freeman, 2010

# Topics and associated reading:

Introduction Chapter 1
Atoms and Periodic Properties Chapter 2

Simple Bonding Theories Chapter 3 (omit 3.2.4)

Aqueous lons Wulfsberg sections 2.1-2.7; 3.2, 3.5, 3.6, 3.7

Symmetry and Group Theory Chapter 4, sections 4.1-4.3

Molecular Orbitals Chapter 5, sections 5.1-5.4.3

Acids and Bases Chapter 6, sections 6.4-6.4.1; 6.6-6.6.1

Redox Chemistry Wulfsberg sections 6.1, 6.2, page 264, 6.9

**Coordination Chemistry** 

Introduction Chapter 9, sections 9.1-9.3.5

Bonding Chapter 10, sections 10.1-10.3; 10.5-10.6

Spectroscopy Chapter 11, sections 11.1-11.3.3; 11.3.7-11.3.8

Reactions Chapter 12, 12.1-12.3; 12.4.5; 12.8

Inorganic Solids Chapter 7, 7.1-7.3

Bioinorganic Chemistry Readings TBA

### **Grading:**

Progress Test 1.100 points (25%)

Progress Test 2.100 points (25%)

Quizzes on Homework. 45 points total (15%)

Friday, May 20, in class

Friday, June 3, in class

Friday, May 13, in class

Friday, May 27, in class

Friday, June 10, in class

Final Exam. 140 points (35%) Friday, June 17, in class

(Note: approximately half of the final exam will be on "new" material and half will be cumulative.)

The following anticipated grade cut-offs will not be raised: From 385 total points, A(330), A-(315), B+(300), B(290), B-(275), C+(260), C(250), C-(235), D+(220), D(210), D-(195)

**Homework**: Homework will be assigned weekly. Answers will be provided prior to the due date. Homework will not be graded, but quizzes and some questions on tests will closely follow assigned homework questions. Working on homework with a partner or in groups is strongly encouraged.

**Attendance:** Attendance is required for all quizzes and tests. Makeup quizzes and exams will only be considered for documented absences consistent with university policies that can be found in the online catalog at: <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a>. Dr. Talham does not require attendance at lectures, although it is highly recommended.

**Academic Honesty:** UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code

(http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel.

Accommodations for students with disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

## **UF grading policies for assigning grade points:**

https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

**UF Course Evaluation Process:** Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.