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| Course Title/Number | Principles of Chemistry II / CHM 212, Section 203 |
| Semester/Year | Spring 2018 |
| Days/Time | 1:00-1:50 PM MWF |
| Location | 473 Science Hall |
| Instructor | Dr. Laura McCunn-Jordan ***PLEASE CALL ME DR. MCCUNN |
| Office | 466 Science Hall (research lab: 404 Science Hall) |
| Phone | (304) 696-2319 |
| E-Mail | mccunn@marshall.edu |
| Office Hours | <p>Mon. 9:30-11:00 and 2:00-3:00 Wed. 2:00-3:00 Fri. 9:30-11:00</p> <p>Other times are available by appointment. I welcome drop-in visits, but cannot guarantee availability outside of office hours. Simple questions can be answered via email.</p> <p>On Wednesdays at 9:30-10:30 in the Chemistry Library (room 460), I hold an office hour open to any student in CHM 211, 212, 217, or 218.</p> |
| University Policies | <p>By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to www.marshall.edu/academic-affairs/policies/.</p> <p>Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment</p> |

Course Description

A continuation of CHM 211 with emphasis on the inorganic chemistry of the representative elements and transition metals. 3.00 credits. Prerequisite: grade of C or better in CHM 211

Required Texts, Additional Reading, and Other Materials

1. *Principles of General Chemistry, Third Edition* by Martin S. Silberberg, McGraw-Hill, 2013.
2. ALEKS access for learning exercises and assignments
3. access to MU Online and a Marshall email account
4. non-programmable calculator for quizzes, tests, and exams (it must not have keys for the alphabet)
5. #2 pencil and ink pen for tests/quizzes

| Course student learning outcomes | How students will practice each outcome in this course | How student achievement of each outcome will be assessed in this course |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Students will identify and explain trends in physical and chemical properties. | <ul style="list-style-type: none"> • lectures • textbook readings • homework | <ul style="list-style-type: none"> • tests and quizzes |
| Students will understand how the energy of a system governs the rate and extent of chemical reactions. | <ul style="list-style-type: none"> • lectures • textbook readings • homework | <ul style="list-style-type: none"> • tests and quizzes |
| Students will understand how the relative amounts of chemical species govern the rate and extent of reactions. | <ul style="list-style-type: none"> • lectures • textbook readings • homework | <ul style="list-style-type: none"> • tests and quizzes |
| Students will apply mathematical techniques to formulate and solve problems in chemistry. | <ul style="list-style-type: none"> • lectures • textbook readings • homework | <ul style="list-style-type: none"> • tests and quizzes |

Attendance Policy

Attendance is highly recommended. In the case that class is cancelled due to inclement weather or an emergency on the day of a scheduled test, the test will be given in the next scheduled class period. If tardiness or electronic devices become a significant distraction during lecture, the instructor reserves the right to refuse admission to the offending students.

Intellectual Property Policy

Students may not share any course materials written by Dr. McCunn in a public forum without her written permission. For example, students may not post online any lecture slides, notes, answer keys, or tests written by Dr. McCunn without her permission. Students may not sell their lecture notes to study services if those notes contain material originally written by Dr. McCunn or any otherwise copyrighted material.

Grading Policy

| | | |
|-------------------------------|-------------|---------------------|
| ALEKS* | 200 | points |
| quizzes | 100 | points |
| tests (4 during the semester) | 500 | points |
| final exam | 200 | points |
| | 1000 | TOTAL POINTS |

Quiz Grades: Each student's lowest quiz grade from the semester will be dropped. Quizzes cannot be made up unless the student presents an excuse to the instructor by the time of the first scheduled class meeting after the student is permitted to return to campus.

***ALEKS Grades:** There are two components to the ALEKS score, each worth 100 points.
1) Objective completion: points are earned by completing objectives by the due date. Each student's lowest individual objective score will be dropped. Deadline extensions will only be granted for excused, extended absences, at the instructor's discretion.
2) Pie (topic) mastery: at the end of the semester, the percentage of topics mastered will be multiplied by 100 points to arrive at the Topic score.

Grading Scale:

A: 90-100%, B: 80-89%, C: 70-79%, D: 60-69%, F: 0-59%

The percentage of total points earned will be rounded to the nearest whole percentage. The final grading scale may be adjusted in order to lower the threshold for a letter grade. If you believe there has been an error in the grading of your work, please consult Dr. McCunn.

Miscellaneous Policies

Please silence cell phone ringers during class or exams. The instructor reserves the right to answer any ringing cell phones during lecture, or to dismiss the offending student. Use of cell phones / PDAs / MP3 players and similar devices during tests, quizzes, and exams will be considered academic dishonesty. Recording of lectures without the instructor's permission is prohibited. Laptops should not be used during class without permission. The content of this course will adhere closely to the information contained in the textbook. You may use other resources (alternate texts, notes from other professors, etc.). If you find information that contradicts something written in the textbook or said in the lecture, please consult Dr. McCunn. Class announcements may be made occasionally via email to your university email address. Please check it on a regular basis. Lecture notes and handouts will be available in Dr. McCunn's office during office hours or by appointment. They will also be posted at MU Online as time permits.

Course Schedule

| Week of: | Chapter | Topic |
|---------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------|
| 1/8 | 12 | Intermolecular Forces |
| 1/15 | no class on 1/15; 13 | Solutions |
| 1/22 | 13, 16 | Kinetics |
| 1/29 | 16; TEST 1 on 2/2 | |
| 2/5 | 17 | Chemical Equilibrium |
| 2/12 | 17, 18 | Chemical Equilibrium, Acids and Bases |
| 2/19 | 18 | Acid-Base Equilibrium |
| 2/26 | TEST 2 on 2/26; 19 | Ionic Equilibrium |
| 3/5 | 19, 20 | Ionic Equilibrium, Thermodynamics & Entropy |
| 3/12 | 20 | Thermodynamics & Free Energy |
| | 3/16 is last day to withdraw from an individual full-semester course | |
| 3/19 | Spring Break | |
| 3/26 | TEST 3 on 3/28, 21 | Redox Reactions |
| 4/2 | 21 | Electrochemistry |
| 4/9 | 22 | Transition Elements |
| 4/16 | 23, TEST 4 on 4/20 | Nuclear Chemistry |
| 4/23 | 23; TBA | Nuclear Chemistry, Review |
| 4/28 SATURDAY 10:00 AM FINAL EXAM (location TBA) | | |