CHEM 3214 SYLLABUS

Instructor: R.L. White, PHSC 331, ph. 325-4806, email: rlwhite@ou.edu

Additional Recommended References:
Any textbook entitled: “Quantitative Analysis” or “Analytical Chemistry”.

Special Notes: Any student in this course who has a disability that may prevent her or him from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Each student should acquaint her or his self with the University’s codes, policies, and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based on physical handicap.

The instructor reserves the right to change by addition and/or subtraction any and/or all materials contained in this syllabus. This includes, but is not limited to, course content, assignments, due dates, and portion(s) of the grade assigned to individual items within the course.
1. Hour Examinations  
   Four exams, 200 pts each, best 3 counted  
   POINTS  
   600

2. Laboratory  
   a) First three experiments, 150 pts each (450)  
   b) All other experiments, 100 pts each (400)  
   c) Lab Instructor Evaluation, 150 pts  
      (notebook, lab technique, quizzes, clean-up)  
   d) Penalties  
      Late experiments (-20%)  
      Recalculated or redone experiments (-10%)  
      All recalculated or redone experiments must be signed by lab TA  
      Redone experiments must employ a new unknown sample  
   e) Note that only 20% of the grade for any experiment is obtained for completing  
      the experiment; the other 80% is based entirely on accuracy  
   POINTS  
   1000

3. Online Quizzes (10)  
   POINTS  
   100

4. Homework Quizzes (4)  
   POINTS  
   100

5. Final Examination (ACS standardized test)  
   POINTS  
   400

6. Makeups  
   a) Laboratory  
      There is time allotted for makeup at the end of the course (see lab schedule).  
      However, you must keep up to avoid penalties. Also, some equipment may  
      only be available at the scheduled times.  
   b) Hour Examinations  
      The first exam missed will be counted as the dropped exam. Additional  
      missed exams will require a written excuse (e.g. doctor’s note) and  
      makeups will be oral.  
   POINTS  
   2200

7. Total Possible Points  
   POINTS  
   2200

8. Grading Scale:  

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CHEM 3214 HOMEWORK

The homework problems listed here are representative of the material covered during lecture. Students must complete an online homework quiz before each hourly exam. The homework quiz will be a single problem that is similar to the assigned problems listed below.

The assigned homework represents the MINIMUM effort that you should expend working problems. If you are still having trouble understanding the material after completing the homework assignment, see the instructor and work more of the problems in the book.


Homework Assignment for EXAM 1

Exercises:
- Chap 3 - A
- Chap 4 - A, E
- Chap 6 - E
- Chap 7 - F, G

Problems:
- Chap 1 - 2, 3ag, 4adf, 12, 13, 14, 23, 26, 28
- Chap 2 - 14, 15, 21
- Chap 3 - 1, 2, 3, 7, 10, 13, 15, 16
- Chap 4 - 1, 2, 8, 11, 14, 19, 23
- Chap 6 - 3, 16, 21
- Chap 7 - 16, 18, 19, 23, 25

Homework Assignment for EXAM 2

Exercises:
- Chap 6 - Ha-e, I, J, K
- Chap 7 - A
- Chap 9 - Ba, D, F, G, I

Problems:
- Chap 6 - 6, 14, 15, 19, 33, 36, 39, 43, 45, 47
- Chap 26 - 45, 54
- Chap 7 - 1, 2ab, 3ac, 4
- Chap 8 - 2, 3, 7, 8, 11, 13a, 21, 23, 32, 33, 38, 39bc
**Homework Assignment for EXAM 3**

Exercises:
- Chap 9  -  A-D, Eab, F
- Chap 10 -  A-C, F
- Chap 11 -  B, C, D, Ea

Problems:
- Chap 9  -  4, 5, 13, 14, 16, 18, 19, 24, 25, 26, 30, 33
- Chap 11 -  6, 8, 10, 17, 24, 31, 36, 47
- Chap 12 -  2, 3b, 6abce

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**Homework Assignment for EXAM 4**

Exercises:
- Chap 13 -  C, Dab
- Chap 15 -  A
- Chap 17 -  A, B

Problems:
- Chap 13 -  4, 5, 6a, 9, 10, 16, 19
- Chap 15 -  4, 5
- Chap 17 -  1, 3, 4, 11
May 2011
CHEM 3214 Course Outline

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- **Course Introduction** Chapters 0, 1
- **Analyte Concentration** Chapter 2
- **Significant Figures** Chapter 3
- **Precision & Accuracy** Chapters 3, 4
- **Error Propagation** Chapter 3
- **Equilibrium Concepts** Chapter 6
- **General Equilibrium Solution** Chapter 7
- **EXAM 1**
- **HOLIDAY**
- **Return Exam 1**
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June 2011
CHEM 3214 Course Outline
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### CHEM 3214 Course Outline

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