Chem 120 - QUANTITATIVE CHEMISTRY II
Spring 2005

Instructor: Dr. Thomas P Beebe, Jr. (175 Brown Lab, 831-1888, beebe@udel.edu)
Secretary: Ms. Linda Grant (107 Brown Lab, 831-1962, lgrant@udel.edu)

Required Course Supplies (Available at University Bookstore or on the web):

• Textbook: Daniel C. Harris, Quantitative Chemical Analysis, 6th Ed.
• Lab Manual: Laboratory Manual for Chemistry 120, Spring 2005 (on the web)
• Lab Protection: SAFETY GOGGLES ARE REQUIRED AT ALL TIMES IN THE LAB!
  Long Pants, Shoes & Shirts with Sleeves Required.
  NO Shorts, Skirts, Sandals, Open-Toe Shoes, Bare midriffs.
• Calculators No special requirements or restrictions

Other Resources

• Tutors - For more information, see Mrs. MacMillan in BRL 104
• Your textbook: http://bcs.whfreeman.com/qca/

Office Hours

• Location - 175 BRL: T: 4:00-5:00; W: 2:00-3:00; R: 10:00 -11:00; and by appointment
• TA & Other Help Sessions - Schedule to be announced as needed

Discussion Periods

• Report to discussion promptly each week in order to hear lab instruction presentation by TA.
• First discussion of the week will be a Lab Recitation, led by your TA.
• Second discussion of the week will be a Homework Recitation session, led by your TA.
• No make-up for missed recitations.
• Discussion and Recitation attendance is required and will be noted.

Laboratory

• Lab meets twice a week. First Lab and first discussions meet during week of February 21, 2005.
• Report to lab promptly each week in order to hear Lab Recitation presentation by TA.
• Labs and make-up labs can only be done during the week scheduled.
• Missed labs CANNOT be made up and will be either EXCUSED or UNEXCUSED.
  - An excused score will be recorded for an EXCUSED LAB.
  - A score of zero (0) will be recorded for an UNEXCUSED LAB.
  - An EXCUSED LAB requires a note from doctor to be given to TA.
• Lab is an inseparable part of Chem 120. Your lab grade is part of your overall grade.
• NOTE: An excessive number of missed labs will result in a failing grade for the entire course.
• Make-up Labs - See Professor Beebe for a lab pass.

Grading Policies - The minimum requirements for obtaining a passing grade.

• Successful completion of at least eight (8) laboratory experiments. You must do all 9 labs.
• Successful completion of the final examination.
• Obtaining a total of at least 400 points on the grading scheme outlined below.

Tentative Grading Scheme - 800 points available

• Two in-class Examinations (200 points, 25 %). Two (2) 100-point exams will be given. No make-up exams will be given for any reason. Your final exam will be up-weighted to account for any excused in-class exam.
• Laboratory Grade (400 points, 50 %). Nine lab experiments are scheduled. Best 8 used for grade.
• Final Examination (200 points, 25 %) The final exam will be cumulative.
• Midterm Grade Will Be Based On Exam #1 ONLY – No Lab Grade!
• If You Have No Exam #1 Score, Your Midterm Grade Will Be a “D”.

NOTE: An excessive number of missed labs will result in a failing grade for the entire course.
## Chemistry 120
### APPROXIMATE SCHEDULE OF LECTURES
#### Spring 2005

<table>
<thead>
<tr>
<th>DATE</th>
<th>LECTURE TOPIC</th>
<th>PROBLEMS</th>
<th>LAB EXPERIMENTS</th>
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</thead>
<tbody>
<tr>
<td>Feb. 21</td>
<td>2) Ch14. Electrochemical Fundamentals</td>
<td><strong>14.4,5,8,10,11,16,18, 24,28,43</strong></td>
<td>1. Acid/Base Titration with Computer Analysis</td>
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<tr>
<td>Feb. 28</td>
<td>3) Ch 15 &amp; 16. Electrodes, Potential &amp; Redox Titrations</td>
<td><strong>15.2-4,8,9,16,18, 32-3,36,47</strong></td>
<td>2. EDTA Titration of Ca$^{2+}$ and Mg$^{2+}$</td>
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<td>Mar. 7</td>
<td>4) Ch 17. Voltammetry, Coulometric Analysis, Electrogravimetry</td>
<td><strong>17.7-9,16-7,24-26</strong></td>
<td>3. Iodometric Determination of Hypochlorite in Bleach</td>
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<td>Mar 14</td>
<td>5) Exam#1 – Ch. 13-17 EDTA, Electrochemistry</td>
<td>Chap. 13-17 Appendices</td>
<td>NONE – exam week</td>
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<td>Mar. 28</td>
<td>SPRING BREAK – no classes</td>
<td></td>
<td>NONE</td>
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<tr>
<td>Apr 25</td>
<td>11) Exam#2 – Ch 18-21 Spectroscopy</td>
<td>Chapters 18-21</td>
<td>NONE – exam week</td>
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<td>May 2</td>
<td>12) Ch 22. Simple &amp; pH-Dependent Extractions</td>
<td><strong>22.8-12</strong></td>
<td>8. Spectroscopic Determination of Fe</td>
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<td>May 9</td>
<td>13) Ch 23. Chromatography Fundamentals</td>
<td><strong>23.7-9,13,17,26, 35-9</strong></td>
<td>9. Two-Component Spectroscopy</td>
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<td>May 16</td>
<td>14) Ch 24. Gas &amp; Liquid Chromatography</td>
<td><strong>24.4-9,18,19,24, 26</strong></td>
<td>NONE</td>
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<tr>
<td>May 23</td>
<td>15) FINAL EXAM: Ch 13-25 Regular time and room</td>
<td>Chap. 13-25 Appendices</td>
<td>NONE</td>
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