**General Chemistry 2**
CHEM 0120 (18196 -1300) CHEM 0420 (24135 - 1050)

**About This Course**
- We will cover solutions, chemical equilibrium, acid-base chemistry, thermodynamics, electrochemistry, kinetics and some special topics.
- This course can be used to satisfy the natural science requirement in the Dietrich School of Arts and Sciences.
- In conjunction with traditional lecture, we will use other active learning techniques to present material such as flipped lectures, in-class exercises, and guided inquiry learning.
- Most course handouts, announcements, and grades will be posted on Blackboard.

**Instructor**
Dr. Tamika A. Madison  
107J Chevron Science Center  
tam7@pitt.edu  
Office Hours  
Tuesday: 10:00 - 11:30AM  
Wednesday 1:00 - 2:30PM

**Required Materials**
- Ebbing and Gannon  
  General Chemistry  
  11th Edition  
  Cengage Learning, 2016
- CHEM 0120 Lab Manual  
  University of Pittsburgh  
  2018 - 2019
- Online Homework  
  Top Hat
- Chemical Splash Goggles
- Scientific Calculator

**Grading**
- **In-Class Work**: 5%
- **Homework**: 5%
- **Lab**: 15%
- **Mid-Terms**: 30%
- **Quizzes**: 15%
- **Final**: 30%

Letter grade cut-offs are determined based on the average overall course percentage and distribution of course percentage for the class.

**Policies**
- Make every effort to attend class regularly.
- Keep classroom distractions to a minimum.
- Complete all homework assignments in a timely manner.
- In-class exams cannot be rescheduled for individuals except in very extreme circumstances.
- Recitation and lab are mandatory components of this course.
- Recitation can be made up by attending another session within the same week.
- See your lab syllabus for the lab make-up procedure.
- Cheating of any kind will not be tolerated.
- If you are requesting an accommodation for a disability, please contact the Office of Disability Resources and Services as soon as possible.

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# Tentative Course Schedule

<table>
<thead>
<tr>
<th>Week of</th>
<th>Ebbing Chapter</th>
<th>Topic</th>
<th>Teaching Mode</th>
<th>Quiz?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/7</td>
<td>12</td>
<td>Solutions</td>
<td>Lecture</td>
<td>No</td>
</tr>
<tr>
<td>1/14</td>
<td>14, 18</td>
<td>Thermodynamics and Chemical Equilibrium</td>
<td>Lecture</td>
<td>Yes</td>
</tr>
<tr>
<td>1/21 (W,F)</td>
<td>14</td>
<td>Chemical Equilibrium: General Principles</td>
<td>Lecture</td>
<td>No</td>
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<tr>
<td>1/28</td>
<td>15</td>
<td>Acids and Bases</td>
<td>Lecture</td>
<td>Yes</td>
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<tr>
<td>2/4</td>
<td>16</td>
<td>Acid Base Equilibrium</td>
<td>Flipped Lecture</td>
<td>No</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2/8: Exam 1 (Chapters 12, 14, 15, 18)</td>
<td></td>
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<tr>
<td>2/11</td>
<td>16</td>
<td>Acid Base Equilibrium</td>
<td>Flipped Lecture</td>
<td>Yes</td>
</tr>
<tr>
<td>2/18</td>
<td>17</td>
<td>Solubility and Complex Ion Equilibrium</td>
<td>Lecture, POGIL</td>
<td>Yes</td>
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<tr>
<td>2/25</td>
<td>19</td>
<td>Electrochemistry</td>
<td>Flipped Lecture</td>
<td>Yes</td>
</tr>
<tr>
<td>3/4</td>
<td>13</td>
<td>Chemical Kinetics</td>
<td>Lecture</td>
<td>Yes</td>
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<tr>
<td>3/11</td>
<td></td>
<td>SPRING BREAK - NO CLASSES!!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/18</td>
<td>20</td>
<td>Nuclear Chemistry</td>
<td>Lecture, POGIL</td>
<td>No</td>
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<tr>
<td></td>
<td></td>
<td>3/22: Exam 2 (Chapters 13, 16, 17, 19)</td>
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<tr>
<td>3/25</td>
<td>20, 22</td>
<td>Nuclear Chemistry Transition Metals</td>
<td>Lecture, POGIL</td>
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<tr>
<td>4/1</td>
<td>23</td>
<td>Organic Chemistry</td>
<td>Lecture, POGIL</td>
<td>Yes</td>
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<tr>
<td>4/8</td>
<td>24</td>
<td>Polymers</td>
<td>Lecture</td>
<td>No</td>
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<td></td>
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<td>4/12: Exam 3 (20 - 24)</td>
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<tr>
<td>4/15</td>
<td>Handouts</td>
<td>Principles of Nanoscience</td>
<td>Lecture</td>
<td>Yes</td>
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</tbody>
</table>

Wednesday, April 24th 8:00AM: Cumulative Final Exam

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**IT'S IN THE SYLLABUS**

Is something missing?
A detailed syllabus is available on Blackboard!!