[Outline of the General Chemistry Course]

Course Description
This course covers the general principles of chemistry and is usually part one of a 3 part series. Most health career fields only require the completion of the first course.

Typical Course Mechanics:
- 3 hours of lecture a week (or 5 hours of online video)
- One 2-4 hour lab a week
- Two midterms (online or in class)
- One final (almost always in class)

Generally, a student should expect to spend about 5-10 hours in class (or watching online videos) and an additional 5-10 hours doing homework/studying per week.

Topics Covered and Required Prereq skills

<table>
<thead>
<tr>
<th>Topic</th>
<th>Prereq required</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Atomic Nature of Matter</td>
<td>None</td>
</tr>
<tr>
<td>Stoichiometry</td>
<td>Intermediate Algebra (Proportions and Ratios)</td>
</tr>
<tr>
<td>Classes of Organic Reactions</td>
<td>None</td>
</tr>
<tr>
<td>Gases</td>
<td>Intermediate Algebra (rewriting equations with variables)</td>
</tr>
<tr>
<td>Chemical Equilibria</td>
<td>Intermediate Algebra (rational expressions )</td>
</tr>
<tr>
<td>Acids and Bases and Aqueous Equilibria. (This section sometimes skipped.)</td>
<td>Intermediate Algebra (rational expressions )</td>
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</tbody>
</table>

[Preparing for the Course]

The following things can be done to help prepare for the course.

Purchase 3x5 notecards: There is quite a bit of memorization in CHEM 120. It is a good idea to make flash cards to help memorize the families of organic molecules and reaction types.

Purchase a scientific calculator: If you do not already own a scientific calculator, purchase one that allows you to see and edit your previous entry. One recommended calculator is the “TI-30X IIS” from Texas instruments. Note that the Training Fund can only reimburse a calculator purchase if it is listed as required for your course.

Brush up on your intermediate algebra: If you have old algebra books revisit: graphing equations of the form y=mx+b, and ratios and proportions.

[Additional Resources]

Solutions manual: Often times your course text book will come in 2 packages: one with just the book and the other with the corresponding solution manual/study guide. It is recommended to get the package with the additional materials if available. Note some optional materials are not training fund reimbursable.

Online Chemistry Materials:
https://www.khanacademy.org/science/chemistry

Online Algebra I Review:
https://www.khanacademy.org/math/algebra/Introduction-to-algebra
(Relevant topics: Ratios and Proportions, Graphing, and Analyzing Linear Functions)

Training Fund Tutoring:
Both online and in-person group tutoring is available by request. Visit:
http://healthcarefund.org/tutoring/