COURSE DESCRIPTION:
A presentation of the fundamentals of chemistry for the non-major who needs a course in the physical science, or who just desires to broaden their general scientific knowledge. The course consists of five (5) class times per week, with each class time being integrated lecture and laboratory time as deemed by instructor. Occasionally time for review and problem solving will be given. Correlated lecture subjects and laboratory work will certainly be strived for in this course.

PREREQUISITE:
Elementary algebra with a grade of “C” or better is required as a prerequisite.

TEXTBOOKS AND MATERIALS:
Required:
A scientific calculator
Safety goggles--- must protect against splashes and impacts!
Computer headphones
Suggested/optional
Corwin companion website access code to textbook.
Chemical laboratory apron.

NOTE: Check at bookstore for apron and goggles.

COURSE OBJECTIVES:
A. Create an understanding of the vital role of chemistry in the every day life, the impact on our level of culture, the impact on our standard of living, and its’ unique value to each human being.
B. To provide a basic and general overview of modern chemistry for the Students which take the course as terminal scientific course.
C. To prepare the Students with basic and limited background, which includes the fundamental concepts and knowledge of chemistry? This should enable the Students to further their study in chemistry and related sciences.
D. Upon completion of the course, the Students will have encountered experiences impacting the objectives of the course (PHS 125).

LEARNING EXPERIENCES:
A. Students may and are encouraged to take an active part in the lectures by asking questions, by commenting on relevant experiences, and asking for further explanations.
B. Various visual aids are used to stimulate, clarify concepts, and to enrich course content.
C. Students are expected to perform investigations in the laboratory as assigned and instructed.

HOMEWORK—PREPARATION:
A. Preparation for each class time (includes lab) is very essential to the means of obtaining a good grade. This includes: a good reading comprehension of material read from the textbook; completion of assignments which may include mathematic problems and/or questions.
B. Study time factor for chemistry is important, and many instructors agree that at least two (2) hours of preparation time per class session is actually required. Plan a time schedule to effectively accomplish this.
C. Individual, group, and help programs are all means of studying.
D. Chemistry is a subject wherein concepts learned the first days of the course are built upon day after day; therefore, it is necessary to retain concepts through out the entire course.
E. Access to textbook website can be used.
F. There is an “Interactive Student Tutorial.
G. Good note taking of lectures - the review of notes ASAP - practice on mathematical problems - listen for key terms from the lectures are all effective means of learning chemistry.
H. Learn concepts, definitions, assigned factors, methods, etc.
I. Use the ODD NUMBERED problems and KEY TERMS at the end of the chapters as learning tools’ The answers to the odd problems are found in the back part of textbook.

COURSE CONTENT:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Assignment</th>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro to Chemistry; Measurements</td>
<td>Chapters 1 &amp; 2</td>
<td>Safety/Check-In/CL/PS</td>
</tr>
<tr>
<td>2</td>
<td>Metric System</td>
<td>Chapters 3</td>
<td>Exp. 2 &amp; 3</td>
</tr>
<tr>
<td>3</td>
<td>Matter and Energy</td>
<td>Chapters 3 &amp; 4</td>
<td>Exp. 20</td>
</tr>
<tr>
<td>4</td>
<td>Matter, Energy; Models of the Atom</td>
<td>Chapters 4</td>
<td>EXAM 1 &amp; Exp. 1</td>
</tr>
<tr>
<td>5</td>
<td>Models of the Atom</td>
<td>Chapter 5</td>
<td>Exp. 4 &amp; 8</td>
</tr>
<tr>
<td>6</td>
<td>Periodic Table</td>
<td>Chapter 6</td>
<td>Exp. 6 &amp; PS/CL</td>
</tr>
<tr>
<td>7</td>
<td>Nomenclature; Chemical Reactions</td>
<td>Chapters 7 &amp; 8</td>
<td>PS/CL &amp; EXAM 2</td>
</tr>
<tr>
<td>8</td>
<td>Chemical Reactions: Redox</td>
<td>Chapters 8 &amp; 17</td>
<td>Exp. 13 &amp; 12</td>
</tr>
<tr>
<td>9</td>
<td>The Mole Concept; Hydrates</td>
<td>Chapters 9 &amp; 13</td>
<td>Exp. 15 &amp; 11</td>
</tr>
<tr>
<td>10</td>
<td>Stoichiometry; Molarity</td>
<td>Chapters 10 &amp; 14</td>
<td>Exam 3 &amp; Exp. 14</td>
</tr>
<tr>
<td>11</td>
<td>Stoichiometry; Solution Stoichiometry</td>
<td>Chapters 10 &amp; 14</td>
<td>Exp. 21 &amp; 24</td>
</tr>
<tr>
<td>12</td>
<td>Acids, Bases, and Gases</td>
<td>Chapter 11 &amp; 15</td>
<td>Exp. 19 &amp; 22</td>
</tr>
<tr>
<td>13</td>
<td>Gases</td>
<td>Chapter 11</td>
<td>Exp. 17 &amp; 18</td>
</tr>
<tr>
<td>14</td>
<td>Bonding, Molecular Shapes</td>
<td>Chapter 12</td>
<td>Exp. 10 &amp; EXAM 4</td>
</tr>
<tr>
<td>15</td>
<td>Molecular Shapes; Organic; Forces</td>
<td>Chapters 12, 13 &amp; 19</td>
<td>Exp. 23 &amp; CL/PS</td>
</tr>
<tr>
<td>16</td>
<td>Solutions</td>
<td>Chapters 14</td>
<td>Exp. 9 &amp; CL/PS</td>
</tr>
</tbody>
</table>

STUDENT EVALUATION:

Evaluation is made by weighted values using the following evaluation methods:

- Major Exams (4 as mentioned in the course content) 20%
- Test (individual chapter tests or designated tests) 15%
- Quizzes (announced and/or un-announced) 10%
- Laboratory (Exp. Computer lab, and lab techniques) 15%
- Homework 15%
- Attendance 5%
- Final 20%

An example of the grading calculation will be provided to explain the evaluation method.

Tests may or may not have “Bonus Points”, however, if provided it will benefit you to try to answer the questions or solve the problems.

At various times subjective grading may be taken on techniques, safety conciseness, and evaluation of understanding of concepts involved in the laboratory work. This will be considered in your lab grade.

Extra credit work in various evaluation areas may be offered. “Honors Option” will be offered, subject to DEPT. CHAIR and DEAN’S APPROVAL----Student must consult and arrange with instructor.

Each student is responsible for her or his make-up work, i.e., that would be missed homework, handing-in lab work, and any other material to be evaluated. Arrangement to take missed test and course work are your responsibility.

Makeup work grade will be subject to a 10% deduction per class period up to a maximum of 35%

Time limit of one (1) week to complete any makeup work and/or test that are allowed to be made up.

Tests, quizzes, and exams can only be made up upon approval of instructor.

Graded work is based on 100% basis.

Homework is expected to be ready for collection at class time as assigned.

Laboratory work Can Not be made-up! Make every effort to be in attendance.

Tentative EXAM Schedule: # 1 Sept. 13 Chapters 1-3 # 3 Oct. 25 Chapters 7, 8, 9, 13, 10, & 17.1-2
# 2 Oct. 4 Chapters 4-6 # 4 Nov. 29 Chapters 10, 11, 14, 8-11 & 15

Note: The above dates for EXAMS may vary due to discretion of instructor.
SPECIAL POLICIES:
If you should have special needs as addressed by the “Americans with Disabilities Act”, and need any test or course materials provided in an alternate format, please notify your instructor immediately. Reasonable effort will be made to accommodate your special need. The Access Office is located in AS103 under the direction of Lisa Leftridge at extension 2152.

ATTENDANCE:
College policy concerning absenteeism will be adhered to: Two weeks of consecutive unexcused absences brings forth a drop from the course.

A deduction of, 2 points for each unexcused class/lab absentee and/or tardy, will be made from your attendance average for the semester. This will be effective after 2 such incidents.

BEHAVIOR:
Please prepare cell phone for “OFF” or “Vibration” mode.
Cheating, dishonesty, disruptive behavior, and plagiarism will not be tolerated. A grade of zero could be awarded if deemed as a corrective action for cheating or copying on evaluations (Test, etc.).

NOTES:
Your instructor is willing to provide help with course content if needed!!!!!!

Remember YOU are responsible to contact instructor for missed assignments and makeup of tests, etc.
The Learning Center may be used in some work makeup situations.
“EXCEL” is a program offered for use to help students with subject matter.

TLH 07/13/07