Introductory Chemistry – CHEM1305
Department of Physical & Environmental Sciences
Spring 2015

A. COURSE INFORMATION
Course number/section: CHEM1305.001
Class meeting time: MWF 11:00-11:50AM
Class location: EN-106
Course Website: https://bb9.tamucc.edu/

B. INSTRUCTOR INFORMATION
Instructor: Jim Silliman, PhD
Office location: Harte Research Institute 120 (HRI-120)
Office hours: MW 2:30-5:00PM
Telephone: 361-825-3718
e-mail: james.silliman@tamucc.edu
Appointments: Email or call to schedule an appointment outside office hours

C. COURSE DESCRIPTION
Catalog Course Description
A one-semester principles course for students in non-science related majors covering the major concepts of chemistry (atomic structure, bonding, stoichiometry, elementary thermodynamics) and the role of chemistry in contemporary society (polymers, energy, pollution, etc.). Will not substitute for CHEM 1311. This course counts toward the natural science component of the University Core Curriculum. Either CHEM 1305 or CHEM 1311, but not both, may be applied towards the core requirement. Students desiring a laboratory experience may co-register for CHEM 1111

Topics such as climate change, acid rain and ozone hole formation are intended to increase the student’s knowledge of involvement of chemistry in everyday life and involve the students in critical thinking exercises through course assignments.

D. PREREQUISITES AND COREQUISITES
Prerequisites
None.
Corequisites
None.

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES
Recommended Textbook
Chemistry in Context, Applying Chemistry to Society, by Middlecamp, Keller, Anderson, Bentley, Cann & Ellis 2012, Seventh Ed.
Optional Textbook(s) or Other References
None.

Supplies
Scientific calculator.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT
Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

Introductory Chemistry is an applied chemistry course designed for non-science majors. This course will provide a basic understanding of chemical concepts such as periodic properties, structure and bonding and relate them to important concepts in society.

By the end of this course, students should be able to:
1. Balance chemical reactions.
2. Convert from one unit to another (i.e. moles to grams, etc.).
3. Draw molecular structures.
4. Explain scientific concepts from non-science perspectives.

G. INSTRUCTIONAL METHODS AND ACTIVITIES
Students will be involved in in-class group assignments throughout the semester dealing with various chemistry impacts on society. In addition, each student will contribute to a group presentation describing a chemistry issue or finding that has affected humanity.

H. MAJOR COURSE REQUIREMENTS AND GRADING
The average of 4 exam grades (including the final), quizzes and a group project will determine the lecture grade. There will be regular homework assignments from each chapter during the semester. You must do the homework problems in order to perform well on exams and quizzes. Four 100-point exams, usually covering 2-3 chapters, are planned (including the final exam). Final letter grades for the lecture course will be assigned as follows: A: 90%, B: 80%, C: 70%, D: 60%, F: < 60%. When justified by the exam statistics and item analysis data, “curve” points may sometimes be added to every student’s final course average, “curving” grades up. Grades will never be “curved” down.
### ACTIVITY

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Exams</td>
<td>300</td>
</tr>
<tr>
<td>Final Exam</td>
<td>100</td>
</tr>
<tr>
<td>Quizzes</td>
<td>50</td>
</tr>
<tr>
<td>Group Presentation</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>550</strong></td>
</tr>
</tbody>
</table>

### I. COURSE CONTENT/SCHEDULE

#### Tentative Schedule:

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>CHAPTER</th>
<th>EXAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>W 1/21 &amp; F 1/23</td>
<td>The Air We Breathe</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>M 1/26, W 1/28, F 1/30</td>
<td>The Air We Breathe</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>M 2/4, W 2/6, F 2/8</td>
<td>The Air We Breathe</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>M 2/9, W/211, F 2/13</td>
<td>Protecting the Ozone Layer</td>
<td>2</td>
<td>Exam 1</td>
</tr>
<tr>
<td>M 2/16, W 2/18, F 2/20</td>
<td>Protecting the Ozone Layer</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>M 2/23, W 2/25, F 2/27</td>
<td>Protecting the Ozone Layer</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>M 3/2, W 3/4, F 3/6</td>
<td>Chemistry of Climate Change</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>M 3/9, W 3/11, F 3/13</td>
<td>Chemistry of Climate Change</td>
<td>3</td>
<td>Exam 2</td>
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<tr>
<td><strong>M 3/16 – W 3/20</strong></td>
<td><strong>SPRING BREAK</strong></td>
<td></td>
<td></td>
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<tr>
<td>M 3/30, W 4/1, F 4/3</td>
<td>Energy from Combustion</td>
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<td></td>
</tr>
<tr>
<td>M 4/6, W 4/8, F 4/10</td>
<td>Energy from Combustion</td>
<td>4</td>
<td></td>
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<td><strong>M 4/27, W 4/29, F 5/1</strong></td>
<td><strong>Presentation of Group Projects</strong></td>
<td>Gr. Projects</td>
<td></td>
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<tr>
<td>M 5/4, F 5/8</td>
<td>The Water for Life</td>
<td>5</td>
<td>Final Exam</td>
</tr>
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</table>

**Exam Schedule:**
- Exam 1: Friday, 2/13/15
- Exam 2: Friday, 3/13/15
- Exam 3: Friday, 4/17/15
- Final Exam: Friday, 5/8/15 (11:00am – 1:30pm)
Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. COURSE POLICIES

Attendance/Tardiness
The student is expected to arrive on time prepared to take notes and work on in-class problems with pen or pencil, paper, calculator and colored markers/pencils. If absent, it is the responsibility of the student to obtain missed information from a classmate. Missed information includes not only lecture notes, but also any possible information regarding syllabus changes.

Make-up Exams
There will be no make-up exams or quizzes for this class. If you miss one lecture exam, your final exam grade will be counted twice to replace the missed exam. This applies to ONE exam only. If you miss more than one, you will receive a zero for the additional missed exam(s). For those students who do not miss an exam, your final exam grade will be counted twice to replace your lowest exam grade (assuming that this improves your overall grade). Do not show up late to an exam, no student will be admitted to the exam after the first exam-taker has left.

Extra Credit
All extra credit is included on each exam and there will be an extra credit quiz offered during the semester.

Cell Phone Use
Before you enter the lecture hall turn OFF your cell phone! Beepers must also be turned off or put on silent mode. Electronic interruptions will NOT be tolerated!

Laptop Use
You are welcome to use a laptop to take notes during class. Do not use it to check email, facebook, youtube videos, etc. These other uses are considered a distraction and you will be asked to leave.

Food in Class
Drinks and snacks are allowed. Do not bring in a meal – this is not a cafeteria.

Participation
You are expected to be attentive and participate in asking/answering questions and also in group assignments.

K. COLLEGE AND UNIVERSITY POLICIES

- Academic Integrity (University)
It is expected that university students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior. See Full University Policy at:
http://catalog.tamucc.edu/content.php?catoid=10&navoid=313#Academic_Integrity

• **Classroom/Professional Behavior**
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• **Deadline for Dropping a Course with a Grade of W (University)**
  The grade of W will be assigned to any student officially dropping a course by Friday, April 10, 2015. No student is eligible to receive a W without completing the official drop process by this deadline. Visit the Office of the University Registrar for the Course Drop Form that must submitted. After April 10, 2015 a student will not be allowed to drop a course.

• **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

• **Disability Services**
  Disability Services (DS) is the hub for coordinating services and accommodations to ensure accessibility and utilization of all programs for all Texas A&M University-
Corpus Christi students with disabilities. Our services are designed to meet the unique educational needs of enrolled students with documented permanent or temporary disabilities. DS provides intake and consultation services to students seeking to register with our office. DS reviews an individual’s documentation of disability and assesses eligibility for services and the determination of reasonable accommodations. For more information visit the Disability Services Office at 116 Corpus Christi Hall or go to http://disabilityservices.tamucc.edu/

L. OTHER INFORMATION

• Tutoring and Test Taking Strategies
To be successful in this course, and most others, you must develop good note-taking skills, organization skills, study habits, and test-taking strategies from the very beginning. Your instructor, seminar leaders and TA’s are always available for help, but don’t wait until it’s too late! It is important that you are aware that the Center for Academic Student Achievement in Room 216 of the library provides free tutoring, test-taking strategies, and extra help. Take advantage of this service! Should you have test anxiety, stress problems, or need help with study skills, the University Counseling Center (Driftwood 107: 825-2703) also provides a free service.

• Use of Electronic Devices During Exams
Any use of an electronic device (palm pilot, Cell Phone, MP3 player, CD player, computer …) during an exam is strictly prohibited. Any use of such a device will be considered an attempt to cheat on the exam and will result in a 0 on the exam although more severe actions may be considered. Calculators may be allowed on exams when needed, but only for mathematical operations. The use of programmable calculators to store or retrieve information during an exam will be considered an attempt to cheat on the exam. Also, if a calculator is discovered to have saved programs or information that could be used as an unfair advantage on the exam, this will be considered an attempt to cheat on the exam. Programs or operators that aid in mathematical operations such as a quadratic equation calculator may be used.

• Assigned Homework
The homework assignment for this class contains the minimum suggested amount of problems that you should work during the semester. The more problems you work, the more comfortable you will be with the subject….DO NOT GET BEHIND.

• Academic Advising
The College of Science & Technology requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. The College's Academic Advising Center can be accessed at:
http://www.sci.tamucc.edu/advising/index.html

- **Statement of Academic Continuity**
  
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.