GENERAL CHEMISTRY I – CRN: 21406  
Department of Physical and Environmental Sciences  
Spring 2020

A. COURSE INFORMATION  
Course number/section: 1411.004  
Class meeting time: MWF – 12:00-12:50 pm  
Class location: OCNR-115  
Course Website: Most announcements, forms, handouts, lecture notes, learning materials etc. are either posted on blackboard.

B. INSTRUCTOR INFORMATION  
Instructor: Dr. Cesar A. Marquez  
Office location: CS-206  
Office hours: TR – 12:30-15:00  
Telephone: (361) 825 5701  
e-mail: cesar.marquez@tamucc.edu  
Appointments: By email

C. COURSE DESCRIPTION  
General Chemistry is the foundation course in chemistry for all science majors. This course will provide a basic understanding of chemical concepts such as nomenclature, periodic properties, structure, bonding, and stoichiometric relationships.

D. PREREQUISITES AND COREQUISITES  
Pre-requisites: None  
Co-requisites: Student Laboratory Safety Training (SMTE-0093)

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES  
Required Textbook(s)  
Online Homework  
You must have the code that accompanies the text to enroll in the online homework Connect, LearnSmart and ALEKS. You can also buy the e-version of the text and the code online. All students are required to start online work the first week of school. Regular assignments will be posted and students are required to complete the assignments on-time.  
Technical Support:  
If you need any assistance with passwords, codes, synchronization with blackboard, etc. please contact McGraw-Hill Education Customer Experience Group (CXG) at:

(800) 331-5094 or www.mhhe.com/support
Supplies
Calculator and Periodic Table.

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.

By the end of this course, students should be able to understand:
1. Atomic structure and quantum theory
2. Periodic Table, properties and trends
3. States and properties of matter
4. Theories of bonding
5. Electron configuration
6. Moles and stoichiometry
7. REDOX reactions
8. Acids, bases, and water solutions
9. Units of measure, significant figures, and rounding
10. Thermochemistry
11. Gases and the Ideal Gas Law
12. Orbital hybridization

G. INSTRUCTIONAL METHODS AND ACTIVITIES

The course is given by face-to-face lectures augmented with PowerPoint slides. Sample problems are presented frequently. Students will be called upon to answer questions. There will be three in-class exams and a final exam. Online homework is required. There is also a laboratory associated with the course.

H. MAJOR COURSE REQUIREMENTS AND GRADING

The course includes lectures and laboratories, graded separately. The final course grade (1000pts) will consider the following distribution:

Lectures Part (750pts): There is a set of online assignments intended to help the student practicing (ALEKS, 150pts). Midterm exams (3 exams, 75, 150, 225 pts respectively, total 450 pts) will include the material that has been covered in class by that time. There will be a final exam and it is comprehensive (150pts).

<table>
<thead>
<tr>
<th>Activity</th>
<th>Score</th>
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<tbody>
<tr>
<td>ALEKS</td>
<td>150</td>
</tr>
<tr>
<td>Midterm Exams (× 3)</td>
<td>450</td>
</tr>
<tr>
<td>Final Exam</td>
<td>150</td>
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<tr>
<td>Total</td>
<td>750</td>
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Attendance is mandatory and therefore it will not be considered when grading.

**Laboratory Part (250pts):** After completing all lab experiments, assignments, and exam, your instructor will grade your performance. All complaints and concerns about the lab grade should be directed to the lab instructor. You will receive more information about the Organic Chemistry I Laboratory Course in the lab syllabus.

The laboratory part of this course is mandatory; a course final grade “F” will be assigned to students absent more than two laboratories without official excuse or justification.

Final letter grading for the course will be as follows: **A > 900, B > 800, C > 700, D > 600, F < 600.**

I. **COURSE CONTENT/SCHEDULE**

The schedule below is a preliminary outline of the course. It is your responsibility to keep up with changes to this schedule. The reading and problems assignments that will be assigned in class should be completed before the next class meeting. Failure to stay current on reading and problem assignments will greatly affect your ability to keep up during lecture and, therefore, will have an indirect effect on your grade in this course.

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Topic</th>
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<tbody>
<tr>
<td>January 22</td>
<td>Introduction and Syllabus Discussion</td>
</tr>
<tr>
<td>01/22, 24, 27</td>
<td>CH01 Introduction to the Study of Chemistry</td>
</tr>
<tr>
<td>29, 31, 02/03, 05</td>
<td>CH02 The Components of Matter</td>
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<tr>
<td>07, 10, 12</td>
<td>CH03 Stoichiometry of Formulas and Equations</td>
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<tr>
<td>Feb 14</td>
<td>Exam 01 (CH01-CH03)</td>
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<tr>
<td>17, 19, 21, 24, 26</td>
<td>CH04 Three Major Classes of Chemical Reactions</td>
</tr>
<tr>
<td>28, 03/02, 04, 06</td>
<td>CH05 Gases and the Kinetic-Molecular Theory</td>
</tr>
<tr>
<td>16, 25, 27</td>
<td>CH06 Thermochemistry: Energy Flow and Chemical Change</td>
</tr>
<tr>
<td>Mar 30</td>
<td>Exam 02 (CH01-CH06)</td>
</tr>
<tr>
<td>04/01, 03, 06</td>
<td>CH07 Quantum Theory and Atomic Structure</td>
</tr>
<tr>
<td>08, 10, 13</td>
<td>CH08 Electron Configuration and Chemical Periodicity</td>
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<tr>
<td>15, 17, 20, 22</td>
<td>CH09 Models of Chemical Bonding</td>
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<tr>
<td>Apr 24</td>
<td>Exam 03 (CH01-CH09)</td>
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<tr>
<td>27, 29, 04/01, 04</td>
<td>CH10 The Shape of Molecules</td>
</tr>
<tr>
<td>06, 08, 11</td>
<td>CH11 Theories of Covalent Bonding</td>
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<tr>
<td>May 08, 11:00 am</td>
<td>Final Exam (CH01-CH11), OCNR-115</td>
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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**

This course is mandatory, and the student is expected to be on time and attend every class. 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. The student is expected to
arrive on time prepared to take notes, \textit{i.e.}, with pen, paper, and colored markers/pencils.

**Late Work and Make-up Exams**

There is no make-up exam for this course. Students with a university approved scheduled absence (athletics,
military duty, etc.) MUST contact the instructor well in advance of the scheduled absence. Exams may be taken'
early in those specific cases. Students who do not arrange to take the exam ahead of time will not be eligible for
this special consideration. A written excuse from the university department involved or the Office of the Dean
of Students is required.

**Extra Credit**

There is no extra credit in this course. Changes in this policy may be necessary and will be announced to the
class by the instructor.

**Cell Phone Use**

Cell phones and laptops are allowed during lectures. However, electronic interruptions absolutely will NOT be
allowed.

**Food in Class**

Food or drinks are not allowed in this course.

**Missed Exam**

Students who do not arrange to take the exam ahead of time will not be eligible for this special consideration.
A written excuse from the university department involved or the Office of the Dean of Students is required.

**Participation**

Students are expected to participate during the classes, this way contributing to the learning process of the
group. The classes are designed as an active environment where every new concept is applied to real synthetic
examples. The students are expected to participate as a team, applying critical thinking to the resolution of the
different practical challenges proposed.

**K. COLLEGE AND UNIVERSITY POLICIES**

**Academic Integrity (University)**

University students are expected to conduct themselves in accordance with the highest standards of academic
honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as'illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism.
(Plagiarism is the presentation of the work of another as one's own work.) In this class, academic misconduct
or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

**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.

**Statement of Civility**

Texas A&M University-Corpus Christi has a diverse student population that represents the population of the
state. Our goal is to provide you with a high quality educational experience that is free from repression. You are
responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

**Deadline for Dropping a Course with a Grade of W (University)**
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar([http://www.tamucc.edu/academics/calendar/](http://www.tamucc.edu/academics/calendar/)) for the last day 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](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](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**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816. [http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

**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.

**L. OTHER INFORMATION**

*Academic Advising*
The College of Science & Engineering 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. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

M. 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.