CHEM-1405-65400 (1152091)
Introductory Chemistry I

Summer 2019
06/05/19 to 07/06/19

PROFESSOR: Shelia J. FOX
EMAIL: sfox@dcccd.edu
OFFICE NUMBER: H 125
OFFICE HOURS: BY APPOINTMENT
MEETING DAYS AND TIME:
LEC: INET
LAB: INET
M T W R F
CREDIT HOURS: 4
DIVISION: SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS
DEAN: CHERLYN SHULTZ-RUTH, M.S.N., RN
DIVISION OFFICE PHONE: 972-860-5612
DIVISION OFFICE NUMBER: W 157

COURSE DESCRIPTION
This course is for non-science majors. It surveys organic chemistry and biochemistry. The reactions, syntheses, nomenclature, uses, purposes and properties of the important classes of organic and biochemical compounds are studied. (3 Lec., 3 Lab.)

COURSE PREREQUISITES
One of the following must be met: (1) Developmental Reading 0093 or (2) English as a Second Language (ESOL) 0044 or (3) have met the Texas Success Initiative (TSI) Reading standard.

COURSE COREQUISITE
One of the following must be met: (1) Developmental Reading 0093 or (2) English as a Second Language (ESOL) 0044 or (3) have met Texas Success Initiative (TSI) Reading Standard.

REQUIRED TEXT(S)
LECTURE
CHEM 1405, 1406 and 1407 need to use the following e-text from this website:
Ball et al. “The Basics of GOB Chemistry”

LABORATORY
CAROLINA DISTANCE LEARNING CHEMISTRY SCIENCE KIT
http://www.carolina.com/catalog/detail.jsp?prodid=581560
REQUIRED MATERIALS: GOGGLES, AND LATEX GLOVES

STATE REQUIREMENTS:
COURSE OBJECTIVES
The objective of the study of a life and physical sciences component of the core curriculum is the focus on describing, explaining, and predicting natural phenomena using scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

Required Core Objectives for Chemistry are as follows:

- Critical Thinking
- Communication
- Empirical and Quantitative Skills
- Teamwork

For 2016-2017, Chemistry will evaluate and assess the following Core Objectives:

- Teamwork

The following science courses include the above core objectives: Biology 1406, 1407, 1408, 1409, 1411, 2401, 2402, 2406, 2416, 2420, 2421; Chemistry 1405, 1406, 1407, 1411, 1412, 2423, 2425; Geology 1401, 1402, 1403, 1404, 1405, 1445, 1447; Physics 1401, 1402, 1403, 1404, 1405, 1407, 1415, 1417, 2425, and 2426.

STUDENT LEARNING OUTCOMES:
After successful completion of this course, the student will be able to:

1) Convert units and measurements and calculate calories and joules.
2) Classify matter, compounds, and chemical reactions, superficially.
3) Use the gas laws in the remedial sense and basics of the Kinetic Molecular Theory to solve problems.
4) Evaluate nuclear radiation.
5) Demonstrate their ability to represent chemistry artistically, either through presentation, poster or art form.
6) Use octet rule and identify trends in chemical and physical properties of elements using Periodic Table.
7) Rules of nomenclature to name chemical compounds.
8) Solve problems stoichiometrically.
9) Write and balance equations.
10) Write chemical equations.

Student in lab will be able to:

1) Convert units and measurements and calculate calories and joules.
2) Demonstrate safe and proper handling of laboratory equipment and chemical laboratory.
3) Conduct basic laboratory experiments with proper laboratory techniques.
4) Learning skills necessary to make accurate and careful experimental observations.
5) Relate physical observations and measurements to theoretical principles.
6) Identify appropriate sources of information for conducting laboratory experiments involving the major principles of chemistry.

STUDENT LEARNING OUTCOMES FOR AA & AS DEGREE PROGRAM

Student will be able to:

1. Reason logically to solve social, political, economic, scientific, quantitative, or personal problems.
2. Communicate ideas (aurally, orally, and in writing) with clarity, logic, proper grammar, and appropriateness for audience and occasion.
3. Employ reading strategies to demonstrate learning, to analyze information, to formulate judgments, and to make recommendations.
4. Apply research skills necessary to retrieve and evaluate information.
5. Demonstrate scientific reasoning to solve problems. (AS Degree only)

COURSE OUTLINE

Instructor Attendance Policy:
Students are expected to attend all classes. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. If for some reason you must leave class early, you should inform the instructor prior to the start of class of your reason for leaving early. (Not applicable for INET sections)

Students must begin attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.
HOMEWORK AND EXAM DATES WILL BE GIVEN IN CLASS. THERE WILL BE NO MAKE UP WORK.

ASSESSMENT

Exams and Assignments:
The final grade for the course is based on the grade scale shown below. There are no exceptions to this grade scale.

The total points are based on the following:

<table>
<thead>
<tr>
<th>Points</th>
<th>Component</th>
<th>Details</th>
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<tbody>
<tr>
<td>45.0</td>
<td>EXAMS</td>
<td>3 @ 15 pts each</td>
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<tr>
<td>33.0</td>
<td>LAB REPORTS</td>
<td>11 @ 3 pts each</td>
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<tr>
<td>6.0</td>
<td>LAB FINAL</td>
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<tr>
<td>6.0</td>
<td>SHORT WRITTEN ASSIGNMENTS</td>
<td>4 @ 1.5 pts each</td>
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<td>5.0</td>
<td>PROJECT</td>
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<tr>
<td>5.0</td>
<td>COMPREHENSIVE FINAL EXAM</td>
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<td>Total: 100 pts</td>
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FINAL EXAM
The final exam will be a standardized test compiled by the American Chemical Society. This tool will assess your overall chemistry knowledge of this course. A mastery of 60% or above is acceptable and the paradigm.

LAB
All students must score 70% on lab safety exam. If score is less than 70%, student must retake safety exam. No student will be allowed to work in the lab unless 70% mastery is achieved. Labs for Excel graphing will be specially assessed to test your graphing ability. A mastery of 60% or above is acceptable and the paradigm.

LAB FINAL EXAM
Questions will be specifically assessed to determine your laboratory knowledge, one of which will be on Excel graphing exercise. A mastery of 60% or above is acceptable and the paradigm.
**Written Assignments**
Students will complete four written assignments covering current news or magazine articles about topics involving chemistry. Each submission shall be at least one full page in length and typed. Include a correct citation of the article. If you need assistance finding topics, the school library can help.

**Project**
Every student will do a project to be turned in at the end of the semester.
Create a short project using Power Point. Choose a topic related to chemistry. You will give a presentation of no more than 10-15 minutes long, as if you were speaking in front of the class. Be sure to include your research references and a brief synopsis of the project with your submission upload.

**Quizzes**
Quizzes are given at the discretion of the instructor, and could be calculated into overall grade.

**GRADING SCALE**

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<tr>
<th>Grade</th>
<th>Score Range</th>
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<tr>
<td>A</td>
<td>100 TO 89.5</td>
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<tr>
<td>B</td>
<td>&lt;89.5 TO 79.5</td>
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<tr>
<td>C</td>
<td>&lt;79.5 TO 64.9</td>
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<tr>
<td>D</td>
<td>&lt;64.9 TO 59.5</td>
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<tr>
<td>F</td>
<td>&lt;59.5 TO 0</td>
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**INSTITUTIONAL POLICIES**

**Attendance Policy:**
Students are expected to regularly attend all classes in which they are enrolled and to be on time. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. There are NO make–up exams, labs or homework assignments EXCEPT with a genuine excuse from instructor.

No student is exempted from taking the final exam. If a student cannot take the final exam on the regular scheduled date, that student will receive a grade of “incomplete” until such time as the exam is completed, EXCEPT in case of an emergency.

Students who are absent from class for the observance of a religious holiday may take an examination or complete an assignment for that missed class within a reasonable time after the absence, if no later than the 15th day of the semester, the student notified the instructor that the student would be absent for a religious holiday. Sec.51.911TX. Educ. Code

**Attendance Policy Addendum Statement**
Students must begin attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.
**Repeating This Course:**
Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. This class may/may not be repeated for the third or subsequent time without paying the additional tuition. Third attempts include courses taken at any of the Dallas County Community Colleges since the Fall 2002 semester. More information is available at: [https://www1.dcccd.edu/cat0506/ss/oep/third_attempt.cfm](https://www1.dcccd.edu/cat0506/ss/oep/third_attempt.cfm)

**STOP BEFORE YOU DROP**

**June 27 (W)       Last Day to Withdraw**

For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: [https://www1.dcccd.edu/coursedrops](https://www1.dcccd.edu/coursedrops)

**Financial Aid:**
If you are receiving financial aid grants or loans, you must begin attendance in all classes. Do not drop or stop attending any class without consulting the Financial Aid Office. Changes in your enrollment level and failing grades may require that you repay financial aid funds. For further information, please contact Financial Aid at 214-860-8688, 8834, or 8826.

**The Texas Success Initiative (TSI):**
The Texas Success Initiative (TSI) is a statewide program designed to ensure that students enrolled in Texas public colleges and universities have the basic academic skills needed to be successful in college-level course work. The TSI requires assessment, remediation (if necessary), and advising of students who attend a public college or university in the state of Texas. The program assesses a student's basic academic skills in reading, writing, and math. Passing the assessment is a prerequisite for enrollment in many college level classes. Students who do not meet assessment standards may complete prerequisite requirements by taking developmental courses in the deficient area and passing them with a grade of C or higher. Additional information is available at [https://www1.dcccd.edu/cat0506/admiss/tsi_requirements.cfm](https://www1.dcccd.edu/cat0506/admiss/tsi_requirements.cfm)

**Academic Honesty:**
Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Online Catalog. More information is available at [https://www1.dcccd.edu/cat0406/ss/code.cfm](https://www1.dcccd.edu/cat0406/ss/code.cfm)
**ADA Statement:** If you are a student with a disability and/or special needs who requires accommodations, please contact the college Disability Services Office. For information regarding the rights and responsibilities of students with disabilities, contact DSO at 972-260-8691 (Voice) or 972-860-3651 (TDD).

**Religious Holidays:**
Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.

**Inclement weather:**
In the event of severe weather conditions, please listen to local radio or television stations for information concerning official closing of Mountain View College facilities. You can also call the information line at 214.860.8680, or check for updates on this web site. Decisions for evening classes will be made by 4:00 pm. http://www.mountainviewcollege.edu/1weather.aspx

**Final Course Grade:**
Final grades are available only on eConnect and touchtone telephone at 972-613-1818. You will need your student ID number and use your birth date as your password. http://econnect.dcccd.edu/econnect/st/stmenu.html

**Disclaimer Reserving Right to Change Syllabus:**
The instructor reserves the right to amend this syllabus as necessary.

**Withdrawal Policy (with drop date):**
If you are unable to complete this course, it is your responsibility to withdraw formally. The withdrawal request must be received in the Registrar’s Office by June 27 (W) Last Day to Withdraw

Failure to do so will result in your receiving a performance grade, usually an "F." If you drop a class or withdraw from the college before the official drop/withdrawal deadline, you will receive a "W" (Withdraw) in each class dropped.

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**Summer Academic Semester, 2018**

**Summer I**
(Summer I includes classes meeting on the following Fridays -- June 8 and July 6 as class days.)

May 28 (M) Memorial Day Holiday
June 5 (T) Classes Begin
June 8 (F) 4th Class Day
June 27 (W)  Last Day to Withdraw
July 4 (W)  Fourth of July Holiday
July 5 (R)  Classes Resume
July 6 (F)  Final Exams/Summer I Ends
July 9 (M)  Last day for faculty to submit grades electronically through eConnect to the Registrar's Office
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<thead>
<tr>
<th>DATE</th>
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<tbody>
<tr>
<td>06/09</td>
<td>• Attendance Quiz</td>
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<td>• Chemistry, Matter and measurement</td>
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<td>• Elements, Atoms and the Periodic Table</td>
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<td>• Ionic Bonding and Simple Ionic Compounds</td>
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<td>• Covalent Bonding and Simple Molecular Compounds</td>
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<td>06/11</td>
<td>• Written Assignment 1</td>
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<td>06/16</td>
<td>• EXAM 1</td>
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<td>• Introduction to Chemical Reactions</td>
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<td>• Quantities in Chemical Reactions</td>
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<td>• Energy and Chemical Processes</td>
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<td>06/18</td>
<td>• Written Assignment 2</td>
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<td>06/30</td>
<td>• EXAM 2</td>
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<td>• Solids, Liquids and Gases</td>
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<td>• Solutions</td>
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<td>• Acids and Bases</td>
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<td>• Nuclear Chemistry</td>
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<td>06/25</td>
<td>• Written Assignment 3</td>
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<td>07/05</td>
<td>• EXAM 3</td>
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<tr>
<td>06/30</td>
<td>• Graphing and Excel Lab</td>
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<tr>
<td></td>
<td>• 580352_Measurement Uncertainty</td>
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<td></td>
<td>• 580334_Estimating Avogadro’s Number</td>
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<td></td>
<td>• 580300_Exploring Density</td>
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<td></td>
<td>• 580302_Chem and Physical Changes</td>
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<td></td>
<td>• 580306_Bonding Molecular Geometry</td>
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<td>580312_Investigating Chemical Reactions</td>
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<td>• 580310_Balancing Chemical Equations</td>
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<td>• _Flame-test</td>
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<td>• 580324_Characteristics of a Buffered Solution</td>
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<td>• 580321_Chemistry The Fundamentals of Calorimetry580350</td>
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<td>07/02</td>
<td>• Written Assignment 4</td>
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<td>07/05</td>
<td>• PROJECTS DUE</td>
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<td>07/05</td>
<td>• Comprehensive Lab Final Exam</td>
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<td>07/05</td>
<td>• Comprehensive Final Exam</td>
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