INTRODUCTORY CHEMISTRY II
CHEM-1407- 66400
Summer II 2017
07/11/17 thru 08/10/17

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OFFICE PHONE: 214-860-8653

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CREDIT HOURS: 4

DIVISION: SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS
DEAN: STEPHEN JONES, Ph. D.,
DIVISION OFFICE PHONE: 214-860-8760
DIVISION OFFICE NUMBER: E 40

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
None

REQUIRED TEXT(S)
LECTURE
CHEM 1405, 1406 and 1407 need to use the following e-text from this website:

LABORATORY
CAROLINA DISTANCE LEARNING CHEMISTRY SCIENCE KIT

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 OUTCOME

STUDENT LEARNING OUTCOMES FOR DISCIPLINE OF CHEMISTRY
Student will be able to:

1. Solve quantitative chemistry problems and demonstrate reasoning clearly and completely. Integrate multiple ideas in the problem solving process. Check results to make sure they are physically reasonable.
2. Clearly explain qualitative chemical concepts and trends.
3. Describe, explain, and model chemical and physical processes at the molecular level in order to explain macroscopic properties.
4. Perform laboratory techniques correctly using appropriate safety procedures.
5. Analyze the results of laboratory experiments, evaluate sources of error, synthesize information, and express it clearly in written laboratory reports.
6. Maintain a laboratory notebook according to standard scientific guidelines.
7. Design, construct, and interpret graphs accurately.
8. Ability to relate to chemistry through artistic interpretation.
9. Apply chemical knowledge to other science and non-science disciplines.

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.

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.

For Online students, attendance will be determined through participation in discussion boards, submission of class assignments, and completing course exams.

1: CHEMISTRY 1407 COURSE CONTENT

CHAPTER COVERED:

- Organic Chemistry of Hydrocarbons
- Organic Functional Groups: Structure and Nomenclature
- Organic Functional Groups: Introduction to Acid-Base Chemistry
- Functional Group Reactions
- Carbohydrates
- Lipids
- Proteins and Enzymes
- Nucleic Acids
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ASSESSMENT

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

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<td>45.0 pts</td>
<td>EXAMS</td>
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<td>LAB REPORTS</td>
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<td>HOMEWORK ASSIGNMENTS</td>
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<td>5.00 pts</td>
<td>DISCUSSION BOARD</td>
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GRADING SCALE
A  100 TO 89.5
B  <89.5 TO 79.5
C  <79.5 TO 64.9
D  <64.9 TO 59.5
F  <59.5 TO 0

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 ALL LABS ARE TO BE SUBMITTED TO CHEM 1407 LABORATORY PORTION.

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. You will be expected to know the concepts covered in the lab experiments and various procedures or tests/calculations performed on data collected.

HOME WORK/ ASSIGNMENTS/QUIZZES
Will be given at the discretion instructor, and could be calculated into overall grade.

INSTITUTIONAL POLICIES
The withdraw date for this class is 08/03/2017

Academic Dishonesty:
Students that caught plagiarizing an assignment will be subject to an “F” in the course and possible expulsion from the college.

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 Catalog. More information is available at https://www1.dcccd.edu/catalog/ss/code.cfm.

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/catalog/ss/oep/third_attempt.cfm.

STOP BEFORE YOU DROP
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

**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

**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 **08/03/2017 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.
The highlighted policies below provide partial listing off the duties, rights and responsibilities of students enrolled in MVC courses.

**LECTURE SCHEDULE**
Power points taken from:

**HOMEWORK**
Homework assignments are from:

***Students are expected to read the online text for the assigned chapters prior to class and be ready to discuss materials during class. You are responsible for all of the material in the assigned reading, regardless of whether it is discussed in the power points or class lecture.***

This is a schedule of events and is subject to change.
Please refer to ecampus.dcccd.edu for all course information.
**LATE ASSIGNMENTS may receive a 10% deduction in grade.**

**Lab Information and Schedule**
Any question related to lab should be emailed to vsharma@dcccd.edu
Students are required to purchase a lab kit from Caroline Supplies.
Here is the link
We encourage students to make a group of 3 to 4 students to buy the lab kit as it will decrease the financial burden. Students can perform the experiments as a group. However, group leader must email me with all the students names in the group. Each experiment except the first experiment (Excel graphing) requires a small video of 10 to 15 minutes long while performing the experiment. Video must show the face of each student at least once. Students do not have to submit the lab video individually as they can be submitted as a group. However, everyone must submit their own lab reports written in their own words. Lab reports should not match with other group members’ reports except the data.
Students will have a week to make groups and buy the lab kits. Students are responsible to make arrangements for meeting places and times with group member to perform the experiments. If a student wants to perform the lab individually, he or she can do so.
The first experiment will be due on Sunday, 16th July as it can be done without the lab kit. No video will be required for the first experiment.
Lab Schedule is given below. Each lab worth 2.67 points. A grade of zero will be given for a lab submitted without the video except the first experiment.
Lab Reports must be submitted as either MS word file or PDF file. Any other format will not be accepted.

Exp_1_Excel Graphing Exercise. Due date Sunday, July 16th, by 11:59 PM  
Exp_2_Bonding and Molecular Geometry. Due date Sunday, July 23rd, by 11:59 PM  
Exp_3_Biodiesel. Due date Sunday, July 23rd, by 11:59 PM  
Exp_4_Aspirin. Due date Sunday, July 30th, by 11:59 PM
Exp_5_Chromatography. Due date Sunday, July 30th, by 11:59 PM  
Exp_6_Saponification. Due date Sunday, July 30th, by 11:59 PM  
Exp_7_Fermentation. Due date Sunday, August 6th, by 11:59 PM  
Exp_8_Isolation. Due date Sunday, August 6th, by 11:59 PM  
Exp_9_Enzyme. Due date Sunday, August 6th, by 11:59 PM

| OPEN 07/11; | Lab: Safety Orientation  
| CLOSE 07/15@ 1:59PM | Lab: Safety Quiz  
| Syllabus quiz |

| HW 8&9 | 12: Organic Chemistry: Alkane & Halogenated Hydrocarbons  
| QUIZ 1 | 13: Unsaturated and Aromatic Hydrocarbons  
| By DUE 7/16 @ 11:59PM | • HW 8: Hydrocarbons Structure & Nomenclature: Questions  
| Quiz 1 |

| HW 10&13 | 14: Organic Compounds of Oxygen  
| QUIZ 2 | 15: Organic Acids and Bases and Some of Their Derivatives  
| By DUE 7/22 @ 11:59PM | • HW 10: Organic Functional Groups Physical Properties and Intro to Acid Base Chemistry  
| Quiz 2 |

| OPEN ON 07/15; | EXAM I  
| CLOSE 07/22 @ 11:59PM |

| QUIZ 3 | DUE by 7/29 @ 11:59PM  
| 16: Carbohydrates | • HW 14: Carbohydrates (Structure and Function): Questions  
| Quiz 3 |

| QUIZ 4 | DUE by 7/29 @ 11:59PM  
| 17: Lipids | • HW 15: Lipids (Structure and Function): Questions  
| Quiz 4 |

| OPEN 7/23; | EXAM 2  
| CLOSE 7/30 @ 11:59PM |

| HW 16 | 18: Amino Acids, Proteins, and Enzymes  
| QUIZ 5 | • HW 16: Proteins: Structure and Function: Questions  
| DUE by 8/06 @ 11:59PM |

| HW 17 | 19: Nucleic Acids  
| QUIZ 6 | • HW 17: Nucleic Acids: DNA and RNA  
| DUE by 8/06 @ 11:59PM |

| HW 18 | 20: Energy Metabolism  
| QUIZ 7 | • HW 18: Metabolism and Bioenergetics: Questions  
| DUE by 8/09 @ 11:59PM |

| OPEN 8/5; | EXAM 3  
| CLOSE 8/09 @ 11:59PM |

| ************************************ | ************************************  
| OPEN 08/10 12:00 AM; | COMPREHENSIVE FINAL EXAM  
| CLOSE 08/10/6@ 1:59PM |  
| *****ONE DAY ONLY***** |  
| DUE by 8/10 @ 11:59PM | *****ONE DAY ONLY*****  
<p>| PROJECTS |</p>
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<tr>
<th>ALL LABORATORIES MUST BE COMPLETED AND_uploaded_to_E-CAMPUS</th>
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<td>Get your kits at:</td>
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<td><a href="http://www.carolina.com/catalog/detail.jsp?prodId=581557">http://www.carolina.com/catalog/detail.jsp?prodId=581557</a></td>
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