Syllabus for
CHE 211--Organic Chemistry I Lecture
3.0 Credit Hours
Fall 2012

I. COURSE DESCRIPTION

An introduction to organic structure and reactions. Course includes a review of general chemistry, alkanes, alkenes, alkynes, alcohols, and polymers.
Prerequisites: CHE 112 Lecture and Lab.
Corequisite: CHE 211 Lab.

II. COURSE GOALS

The purpose of this course is to provide students with their first full semester of organic chemistry course beyond their exposure in general chemistry. The student will learn the structure, reactions, mechanisms and names of hydrocarbons, ethers, and alcohols.

III. STUDENT LEARNING OUTCOMES FOR THIS COURSE

Terminal Objectives
As a result of successfully completing this course, the student will be able to do the following:

A. Name the various organic compounds.

B. Write reaction sequences for the synthesis of the major classes of organic compounds.

C. Write simple organic reaction mechanisms.

D. Correlate molecular structure (stereochemical, conformational, and functional groups) with physical and chemical properties.

E. Describe the relationship between the chemical makeup of organic compounds and their pharmacological effects.

F. Discuss bimolecular and unimolecular substitution and elimination reactions of alkyl halides.

G. Write the structure and interpret spectra of simple organic molecules.

H. Discuss reaction kinetics in organic chemistry.

IV. TEXTBOOKS AND OTHER LEARNING RESOURCES

A. Required Textbooks
1. Smith, Janice Gorzynski, Organic Chemistry, 3rd Ed., New York, New York: McGraw-Hill, 2011 ISBN: 978-0-07-337562-4.
2. Smith, Janice Gorzynski, Student Study Guide/Solutions Manual to accompany Organic Chemistry, 2nd Ed.: ISBN: 978-0-07-304987-8
3. Einstruction Response Pad and Enrollment Code Molecular model kit from W. B. Benjamin Company

B. Optional Materials
   1. Spectral exercise problems
   2. Other necessary notes will be available on d2l.

V. POLICIES AND PROCEDURES

A. University Policies and Procedures
   1. Attendance at each class or laboratory is mandatory at Oral Roberts University. Excessive absences can reduce a student's grade or deny credit for the course.
   2. Students taking a late exam because of an unauthorized absence are charged a late exam fee.
   3. Students and faculty at Oral Roberts University must adhere to all laws addressing the ethical use of others' materials, whether it is in the form of print, electronic, video, multimedia, or computer software. Plagiarism and other forms of cheating involve both lying and stealing and are violations of ORU's Honor Code: "I will not cheat or plagiarize; I will do my own academic work and will not inappropriately collaborate with other students on assignments." Plagiarism is usually defined as copying someone else's ideas, words, or sentence structure and submitting them as one's own. Other forms of academic dishonesty include (but are not limited to) the following:
      a. Submitting another's work as one's own or colluding with someone else and submitting that work as though it were his or hers;
      b. Failing to meet group assignment or project requirements while claiming to have done so;
      c. Failing to cite sources used in a paper;
      d. Creating results for experiments, observations, interviews, or projects that were not done;
      e. Receiving or giving unauthorized help on assignments.

      By submitting an assignment in any form, the student gives permission for the assignment to be checked for plagiarism, either by submitting the work for electronic verification or by other means. Penalties for any of the above infractions may result in disciplinary action including failing the assignment or failing the course or expulsion from the University, as determined by department and University guidelines.
   4. Final exams cannot be given before their scheduled times. Students need to check the final exam schedule before planning return flights or other events at the end of the semester.
   5. Students are to be in compliance with University, school, and departmental policies regarding the Whole Person Assessment requirements. Students should consult the Whole Person Assessment handbooks for requirements regarding general education and the students' majors.
      a. The penalty for not submitting electronically or for incorrectly submitting an artifact is a zero for that assignment.
      b. By submitting an assignment, the student gives permission for the assignment to be assessed electronically.

B. School and/or Department Policies and Procedures
   1. The Department of Biology and Chemistry adheres to the Assessment policy concerning plagiarism as described in the University Catalog, "Written assignments using sources must demonstrate ethical and accurate use of source

material. Plagiarism and any unethical or inappropriate use of sources are not tolerated."

2. The following assessment actions will be taken in the of event of documented instances of plagiarism on written assignments, copying of homework assignments, or cheating during examinations:
   a. An automatic zero will be given for the assignment or exam.
   b. The original assignment or exam will be kept in the student file and a copy will be given to the student. This could have a negative impact on letters of reference and admission to graduate schools and other postgraduate programs.
   c. The Department will take repeated offences as grounds for further action.
3. Any Whole Person Assessment Requirement activity required in this course must be completed and assessed prior to the end of the semester to receive course credit, otherwise a grade of incomplete will be assigned.

C. Course Policies and Procedures

1. Evaluation Procedures
   a. Grading System

Calculation of Points	**Points**
4 Hour Exams (4x100)	400
Homework Assignments	80
Research Papers	100
Quizzes	200
Attendance	20
Comprehensive Final	200
Total	1000

   b. Final letter grades will be calculated based on the grade distribution curve of total points for the course:
   90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; Below 60 = F
2. Whole Person Assessment Requirements
   CHE or BMC majors only: No Whole Person Assessment assignment is required.
3. The instructor reserves the right to change the syllabus.
4. Late submission of assignments will result in a 10% grade reduction per week

VI. COURSE CALENDAR

WEEKS	**CHAPTERS**	
1	Ch. 1	Structure and Bonding
2	Ch. 2	Acids and Bases
3	Ch. 3	Introduction to Organic Molecules and Functional Groups
4	Ch. 4	Alkanes
5	Ch. 5	Stereochemistry
6	Ch. 6	Understanding Organic Reactions

WEEKS	CHAPTERS	
7	Ch. 7	Alkyl Halides and Nucleophilic Substitution
8	Ch. 8	Alkyl Halides and Elimination Reactions
9	Ch. 9	Alcohols, Ethers and Epoxides
10	Ch. 10	Alkenes
11	Ch. 11	Alkynes
12	Ch. 12	Oxidation and Reduction
13	Ch. 13	Mass Spectrometry and Infrared Spectroscopy
14	Ch. 14	Nuclear Magnetic Resonance Spectroscopy
15		Course Review; Final Examination

Course Inventory for ORU's Student Learning Outcomes

Organic Chemistry I Lecture – CHE 211
Fall 2012

This course contributes to the ORU student learning outcomes as indicated below:
Significant Contribution – Addresses the outcome directly and includes targeted assessment.
Moderate Contribution – Addresses the outcome directly or indirectly and includes some assessment.
Minimal Contribution – Addresses the outcome indirectly and includes little or no assessment.
No Contribution – Does not address the outcome.

The Student Learning Glossary at http://ir.oru.edu/doc/glossary.pdf defines each outcome and each of the proficiencies/capacities.

OUTCOMES & Proficiencies/Capacities	Significant Contribution	Moderate Contribution	Minimal Contribution	No Contribution
1	**Outcome #1 – Spiritually Alive** Proficiencies/Capacities				
1A	Biblical knowledge			X	
1B	Sensitivity to the Holy Spirit			X	
1C	Evangelistic capability			X	
1D	Ethical behavior		X		
2	**Outcome #2 – Intellectually Alert** Proficiencies/Capacities				
2A	Critical thinking	X			
2B	Information literacy	X			
2C	Global & historical perspectives		X		
2D	Aesthetic appreciation			X	
2E	Intellectual creativity	X			
3	**Outcome #3 – Physically Disciplined** Proficiencies/Capacities				
3A	Healthy lifestyle				X
3B	Physically disciplined lifestyle				X
4	**Outcome #4 – Socially Adept** Proficiencies/Capacities				
4A	Communication skills		X		
4B	Interpersonal skills			X	
4C	Appreciation of cultural & linguistic differences			X	
4D	Responsible citizenship	X			
4E	Leadership capacity			X	

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