

**METU NCC**  
**CHM237 "Organic Chemistry I" COURSE DESCRIPTION/SYLLABUS**  
**Fall 2013-2014**

**Course Title:** Organic Chemistry I

**Course Code:** CHM 237

**Type of Course /Level of Course:** Compulsory/2<sup>nd</sup> Year BSc

**Number Credits Allocated:** (3-2)4, 6 ECTS

**Prerequisite:** CHM 112

**Theoretical/Practice/Laboratory (hour/week):** 3/1/4

**Catalogue Description:** Introduction to Organic Chemistry. A new mechanistic approach to the study of chemical reactions and survey of hydrocarbons, alcohols, esters, aldehydes, ketones, carboxylic acids (and their derivatives), amines. The course emphasizes the fundamental properties of organic compounds.

**Instructor(s):** Assist. Prof. Dr. Mustafa Erkut Özser, office SZ-45

**Class Hours/Location:** Tues. 10:40-11:30/S-102 & Thurs. 8:40-10:30/S-102

**Recitation Hours/Location:** To be announced later

**Office Hours/Location/Contact:** Mon. 11:40-12:30, Wed. 14:40-15:30, Fri. 8:40-9:30 / Academic S-building, SZ-45. Tel. 2955, email: [ozser@metu.edu.tr](mailto:ozser@metu.edu.tr) Web: [www.metu.edu.tr/~ozser](http://www.metu.edu.tr/~ozser)

**Textbook / Material / Recommended Readings:** Required: "Organic chemistry, a Brief Course", Hart, Craine, Hart, 13<sup>th</sup> Edition, Brooks/Cole, 2012.

Help Book(s): Any Organic Chemistry book would be helpful.

**Relationship to CHM 237 Lab :** Passing the lab work is prerequisite for this course. If you fail the lab, you automatically fail the course. Some of you may not need to repeat the laboratory work. Make sure that you check your status with your instructor. Lab scheduling and coverage will be provided by your lab instructor. **You should get at least 60% from your lab work. Anything less will result in a letter grade of "NA". Students with "NA" grade are NOT allowed to take re-sit exam!**

**Course Objectives:** Upon successful completion of this course students should understand structure and naming of organic compounds and learn about preparation methods and reactions of the various organic functional groups with a very brief discussion of reaction mechanisms. Designed primarily for engineering majors.

**Learning Outcomes:**

1. Have an understanding of organic chemistry principles.
2. Understand electronic structure of the basic organic groups including the most common functional groups.
3. Understand the common organic reactions and be able to write their mechanisms.
4. Identifying and solving organic chemistry problems. Handle the naming of the organic molecules from their structure, and write structure from name.
5. Differentiating between organic functional groups.

**Tentative\* Weekly Lecture Schedule:**

Week of	Lecture Material	Assignments
September 23,	Orientation and Chapter 1. Bonding and Isomerism	1.31-1.43, 1.45-1.51
September 30,	Chapter 2. Alkanes and Cycloalkanes; Conformational and Geometric Isomerism	2.26-2.36, 2.38-2.42
October 7,	Chapter 3. Alkenes and Alkynes	3.33-3.45, 3.48, 3.49, 3.52, 3.53, 3.55-3.60
October 15 - 18	RELIGIOUS HOLIDAY (Kurban Bayram) (Tuesday-Friday, 4 days)	
October 21, 28	Chapter 4. Aromatic Compounds	4.20-4.22, 4.24-4.42
October 29	NATIONAL HOLIDAY (National Day / Cumhuriyet Bayramı) (Tuesday)	
November 4, 11	Chapter 5. Stereoisomerism	5.26-5.50
November 15	NATIONAL HOLIDAY (Republic Day of the TRNC - Friday)	
November 18, 25	Chapter 6. Organic Halogen Compounds; Substitution and Elimination Reactions	6.11-6.21, 6.24, 6.25
December 2, 9	Chapter 7. Alcohols, Phenols, and Thiols	7.26-7.46
December 16, 23	Chapter 8. Ethers and Epoxides	8.16-8.33
December 30, January 5,	Chapter 9. Aldehydes and Ketones	9.31-9.49
January 1	New Year's Holiday (Wednesday)	
January 14-25	Final Exams	

\*This is a tentative schedule that may be modified, on the basis of the class' progress during the semester.

**General Policies:**

Regular attendance to the lectures and the associated recitation is expected. Make-up exams will not normally be given, unless you have a university approved written excuse in a timely manner.

**Exams and Grading:**

There will be two midterm exams and one final exam at the dates which will be announced later. In addition to those there will be also some class quizzes.

Letter grades will be calculated based on the following scheme:

<b>Quizzes:</b>	<b>8%</b> (3 quiz exam)
<b>Midterms:</b>	<b>40%</b> (2 midterm exam, 20% each)
<b>Final:</b>	<b>40%</b>
<b>Laboratory average:</b>	<b>12%</b> (You should get <b>at least 7.2 out of 12</b> from your lab work. Anything less will result in a letter grade of NA)

***\*Instructor(s) reserve the right to adjust the letter grade cut-offs.***

**Hints:** Attend lectures every week, take a good set of lecture notes, read textbook, do End-of-Chapter Questions & Problems.

***Good Luck and I hope you all enjoy learning Organic Chemistry!***