



SUBJECT DATASHEET

Semester:	2010/11/2
Subject:	Theoretical organic chemistry
Code:	VEMKOK2112A
Responsible department:	Department of Organic Chemistry
Responsible department code:	MKOK
Responsible lecturer:	Dr. Ferenc Ungváry

Educational objectives:

Educational objectives: The goal of the course is to solidify the student's understanding of the basic concept of organic chemistry provided by an earlier one-year course in organic chemistry, and to present some quantitative information. This course focuses mainly of reactive organic species, their structure, stability and reactivity.

Detailed content of the subject:

Detailed content of the subject 1. Reactive intermediates and their importance in organic reaction mechanisms.. 2. Delocalization and delocalized bonds. 3. Conjugated molecules and aromatics. 4. The strengths of acids and bases. Kinetic and thermodynamic acidity. 5. Fluxional molecules. 5-6. Weak bonds in organic chemistry. 7-8. Carbocations, their reactivity and stability. 9. Free organic radicals. Their stability and reactivity 10-11. Carbenes and carbenes. 12. Organic photochemistry. 13. Stereochemistry at organic molecules. 14. Carbanions and their reactions.

Requirements:

Requirements: - attendance is compulsory - passing 3 tests with an average score of 2 or above

Required and suggested references:

Felhasznált tankönyvek: Dr. Markó László, Dr. Ungváry Ferenc Szerves Kémia V. Kézirat Veszprém 1997. Dr. Szántay Csaba Elméleti Szerves Kémia 3. kiad. Musz. Könyvkiadó Budapest 1984. Dr. Nógrádi Mihály Bevezetés a sztereokémiába Musz. Könyvkiadó Budapest 1975 (Dr. Nógrádi Mihály Stereochemistry, Basic Concepts & Applications, Pergamon Press, 1981. Egyéb ajánlott irodalom: T. H. Lowry, K. Schueller Richardson: Mechanism and Theory in Organic Chemistry, 3. Edition, Harper and Row, New York 1990.