



## COURSE DATASHEET

<b>Semester:</b>	2012/13/2
<b>Course:</b>	Organic Chemistry IV
<b>Code:</b>	VEMKOKM112N
<b>Responsible department:</b>	Department of Organic Chemistry
<b>Department code:</b>	MKOK
<b>Responsible instructor:</b>	Dr. Rita Skodáné Földes

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### Course 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 the mechanism of organic reactions and methods to investigate them.

### Course content:

#### Detailed content of the subject:

1. Structure, reactivity, and mechanism.
2. Energetics, kinetics, and the investigation of mechanism.
3. The strengths of acids and bases.
4. General and specific base- acid catalysis.
5. Nucleophilic substitution at a saturated carbon atom.
6. Carbocations, electron-deficient N and O atoms and their reactions.
7. Electrophilic and nucleophilic substitution in aromatic systems.
8. Electrophilic and nucleophilic addition to C=C.
9. Polymerisation, polycondensation.
10. Nucleophilic addition to C=O.
11. Elimination reactions.
12. Carbanions and their reactions.
13. Radicals and their reactions.
14. Symmetry controlled reactions.
15. Linear free energy relationships.

### Requirements, evaluation and grading:

#### Requirements:

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

### Required and recommended readings:

#### Felhasznált tankönyvek:



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### Required and recommended readings:

Felhasznált tankönyvek: Dr. Markó László Szerves Kémia V. Kézirat Veszprém 1981.  
Dr. Szántay Csaba Elméleti Szerves Kémia 3. kiad. Műsz. Könyvkiadó Budapest 1984.  
Dr. Nógrádi Mihály Bevezetés a sztereokémiába Műsz. 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. F. A. Carey and R. J. Sundberg Advanced Organic Chemistry 3rd Ed. Part A és B Plenum Press, New York and London 1990. Organikum 16. Kiad. 1986. és 19. Kiad. 1993. Johann Ambrosius Barth, Leipzig-Berlin-Heidelberg. Edition Deutscher Verlag der Wissenschaften.