UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2016/17/1
Course:	Organic Chemistry IV
Code:	VEMKOKM112N
Responsible department:	Department of Organic Chemistry
Department code:	MKOK
Responsible instructor:	Dr. Rita Skodáné Földes

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 mechnism.
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.