



## COURSE DATASHEET

<b>Semester:</b>	2013/14/1
<b>Course:</b>	Biochemistry
<b>Code:</b>	VEMKOKB221B
<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: To gain a deeper understanding of the topics of the biochemistry lecture

### Course content:

Detailed content of the subject 1.Carbohydrates: monosaccharides and typical reactions 2.Carbohydrates: di-, polysaccharides. Structure and biochemical role. 3.Properties of amino acids. Peptides. Structural elements of proteins. 4.Nucleic acids: bases, nukleotides. Oligonukleotides. Structure of DNA, genetic code 5.Lipids: fatty acids and fats. Phosphoglycerides, sphingomyelines. Terpenes, vitamines, steroids, hormons. Biochemical role. 6.Biocatalysis, The Michaelis-Menten model. 7.Metabolic pathways. Glycolysis, glycogen metabolism. 8.Citric acid cycle 9.Respiratory chain, oxidative phosphorylation. 10.Potosynthesis. 11.Metabolism of unsaturated fatty acids 12.Biosynthesis of lipids. 13.Peptide synthesis in vivo 14.Metabolic pathways of amino acids 15.Metabolic pathways of nucleobases.

### Requirements, evaluation and grading:

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

### Required and recommended readings:

Ajánlott tankönyvek, jegyzetek: Ábrahám S., Oláh B.: Biokémia I-II Egyetemi jegyzet Kolman, J.; Röhm, K. H. Color Atlas of Biochemistry, Thieme, Stuttgart 1996 Voet, D.,Voet, J.G.: Biochemie, VCH, Weinheim, 1992 Boros L., Sajgó M.: Bevezetés a biokémiába. MK, Budapest, 1993.