Course Information Sheet

University: *University of Presov*	
Faculty: *Faculty of Humanities and Natural Sciences*	
Code: *2EKO/ORGCH/22*	**Title of Course: Organic chemistry**
Form of Study: *lectures 2 hours per week, seminars and laboratory course 2 hours per week* **Number of contact hours:** **per week:** *2+2* **per level/semester:** *20 hours lectures, 20 hours seminars, 110 hours self-study* **Method of study:** *full-time study*	
Number of credits: *5*	
Semester: *2.*	
Degree/Level: *1.*	
Prerequisities: -	
Grading Policy (Assessment/Evaluation): *Final exam 70 %.* *Continuous semestral examination during seminars 30 %.* *Success criteria (percentage):* *a) A - 100.00 - 90.00%* *b) B - 89.99 - 80.00%* *c) C - 79.99 - 70.00%* *d) D - 69.99 - 60.00%* *e) E - 59.99 - 50.00%* *f) FX - 49.99 and less%.*	
Aims and Objectives: After the completion of this course, students will: *- be familiar with the fundamentals of organic chemistry;* *- know basic organic chemistry terminology and nomenclature;* *- know general types of organic compounds;* *- be able to perform basic laboratory experiments in organic chemistry and identify organic compounds.*	
Syllabus/Indicative Content: 1. *General terminology in organic chemistry. Chemical bonds. Classification of organic compounds.* 2. *Organic chemistry nomenclature. Isomers. General types of organic reactions.* 3. *Structure and properties of alkanes and cycloalkanes. Substitution radical reactions.* 4. *Structure and properties of alkenes and cycloalkenes. Addition electrophilic reactions.* 5. *Structure and properties of alkines, alkadienes and organic polymers. Addition and elimination reactions.* 6. *Structure and properties of aromatic compounds. Substitution nucleophilic reactions.* 7. *Derivatives of hydrocarbons – synthesis, occurrence, properties and reactions.* 8. *Halogen derivatives.* 9. *Nitrogen derivatives.* 10. *Oxygen derivatives – alcohols, fenols, eters.* 11. *Carbonyl compounds – aldehydes, ketones and carboxylic acids. Carboxylic acids derivatives.* 12. *Biomolecules – amino acids, peptides, proteins, lipids and saccharides.* 13. *Heterocyclic compounds.* 14. *Laboratory experiments in organic chemistry.* *Self-study:*	

1. Preparation to laboratory course (protocols).
2. Calculations in organic chemistry.

Suggested readings:

1. P. Hrnčiar: Organická chémia, UK Bratislava, 1997.
2. W.H. Brown: Organic Chemistry, Saunders College Publishing, New York, 1995.
3. P. Hrnčiar a kol. Organická chémia v príkladoch, UK Bratislava, 1998.
4. J. McMurry: Organická chemie, MU Brno, 2007.
5. P. Elečko a kol.: Laboratórne cvičenie z organickej chémie, UK Bratislava, 1998
6. M. Slivka, Y. Farinuk, R. Mariychuk, Organic chemistry. Organic chemistry for students of ecological specialities. Presov. 2021.

Language of Instruction: *slovak*

Other course information:

Grading history

40 students

A	B	C	D	E	FX
0%	0%	10%	13%	35%	43%

Lecturer/Instructor:

Doc. Ruslan Mariychuk, PhD. - lectures
RNDr. Romana Smolková, PhD. – seminars

Last update: 9. May 2022

Approved by: *uvádza sa meno a priezvisko zamestnanca vysokej školy (štandardne garant študijného programu), ktorý zmenu schválil*