Study program: Environmental protection

Type and level of study: Bachelor academic studies

Course Title: Organic chemistry

Teachers: **Mira Pucarević, Gordana Racić**

Status: Obligatory, semester II

ECTS: 8

Prerequisite: None

The goal of course
The goal is for students to gain the basics of theoretical and practical knowledge of organic chemistry as a basis for further mastering the content of general and vocational subjects in the study program.

The outcome of the subject
The outcome of the course is to acquire the necessary basic knowledge in the field of organic chemistry, to gain knowledge about the structure of organic compounds, their nomenclature, reactivity and types of organic reactions. The subject also provides practical skills in performing experiments in chemistry and processing of experimental results.

Syllabus
Theoretical study – The structure of organic molecules and functional groups. Types and basic mechanisms of organic reactions. Nomenclature of Organic compounds by IUPAC. Alkanes, cycloalkanes. Alkenes, alkynes and dienes. Alcohols and ethers. Aromatic hydrocarbons. Halogenated hydrocarbons. Aldehydes and ketones. Esters. Amines and their derivatives. Carboxylic acids and their derivatives. Carbohydrates. Chemicals substituted benzene: alkylbenzenes, phenols and benzenamine. Heterocyclic compounds. Amino acids, peptides, proteins and nucleic acids.
Practical classes - Experimental performing some basic operations in the organic laboratory practice.

Literature
1. Mihailović, M. (1970). Osnovi teorijske organske hemije i stereohemije. Građevinska knjiga. Beograd.
2. Vollhardt, K.P.C. & Schore, N.E. (1996). Organska hemija. Haydigraf. Beograd (prevod na srpski jezik Šolaja, B.).
3. Milić, Lj.B., Đilas, M.S. & Čaradanović-Brunet, M.J. (2006): Eksperimentalna organska hemija. Tehnološki fakultet. Novi Sad.
4. Taylor, A.G. (1995): Organska hemija. III izdanje. Naučna knjiga. Beograd (prevod sa engleskog).
5. Opsenica, D. (2007): Praktikum iz organske hemije. Data status. Beograd.
6. Organic Chemistry 4th ed - Paula Yurkanis Bruice (1228p)

Number of lectures: 5				Other Classes
Lectures: 2	Practices: 3	Other forms of teaching:	Student research work:	

Teaching methods: Lectures, using computer technology, discussions with students, individual and team work, practical classes

Score (maximum 100 points)

Pre-commitments	**Poens**	**The final exam**	Poens
Activity during lectures	10	Written exam	
Practical classes	10	Oral examination	40
Colloquia	2 x 20		
Seminars			
Total	60		40