Study program : Chemistry
Type and level of studies: PhD in chemistry
Course unit: Reaction mechanisms in organic chemistry
Teacher in charge : Prof. Dr Zorica Bugarčić
Language of instruction: English
ECTS: 10
Prerequisites: entered the second or the third year of study program
Semester: Winter semester (3rd year of study program) or summer semester (2nd year of study program)
Course unit objective The aim of this course is to give students a better insight into the modern knowledge about the reaction mechanisms in organic chemistry, as well as to enable them to predict reaction mechanisms depending on compounds structures and reaction conditions.
Learning outcomes of Course unit
After completing this course students will be able to apply knowledge gained in scientific research through the lectures, independent seminar papers and tests.
Course unit contents

Theoretical classes: Classification of organic reactions. Bond breaking in organic reactions. Bond energies. Types of chemical reagents. Chemical energetics and kinetics. Methods for determination of reaction mechanism. Reaction intermediates. Nucleophilic substitutions. Electrophilic substitutions. Radical substitution. Electrophilic additions. Nucleophilic additions. Radical additions. Eliminations. Rearragment reactions. Oxidation and reduction.

Literature

1. Mechanism in organic chemistry, Peter Sykes, Longman Scientific and Tehnical, 1986.

Number of active teaching hours Other classes Lectures: 5 Practice: Other forms of classes Independent work:/ / Teaching methods Teaching methods Independent work:/ Independent work:/

Lectures, seminars, colloquiums

Examination	methods (maximum	100	points)
				/

Exam prerequisites	No. of points:	Final exam	No. of points:	
Student's activity during lectures	10	oral examination	15	
practical classes/tests		written examination	15	
Seminars/homework	20			
Project				
Other (colloquiums)	40			
	Grading s	system		
Grade	No. of points		Description	
10	91-10	Excellent		
9	81-9	0	Exceptionally good	
8	71-80		Very good	
7	61-70		Good	
6	51-60		Passing	
5	<51	Failing		