

NAME OF THE COURSE		Laboratory Course in Organic Chemistry					
Code	PMC007	Year of study		2 nd undergraduate study			
Course teacher	Dr Renata Odžak, Associate Professor Dr Stjepan Orhanović, Associate Professor	Credits (ECTS)		4.5			
Associate teachers		Type of instruction (number of hours)		L	S	E	F
						60	
Status of the course	obligatory	Percentage of application of e-learning		20%			
COURSE DESCRIPTION							
Course objectives	Introduce modern techniques and methods of work in organic chemistry.						
Course enrolment requirements and entry competences required for the course	Listened Organic chemistry I and enrolled Organic Chemistry II.						
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<p>After completing the course, the students will be able to:</p> <ol style="list-style-type: none"> 1. use an apparatus for organic synthesis, 2. to distinguish between functional groups of organic compounds and the ways of their demonstration, 3. apply the extraction method, 4. interpret the results of the product synthesis from the given reactants with the calculation of utilization, 5. apply contemporary techniques of purification of organic preparations and devices in the laboratory for organic chemistry. 						
Course content broken down in detail by weekly class schedule (syllabus)	<p>Laboratory exercises:</p> <ol style="list-style-type: none"> 1. Preparation of solutions and reagents (4 hours) 2. Determination of Functional Group of Organic Compounds (4 hours) 3. Separation of the mixture by extraction (4 hours) 4. Separation by column and thin layer chromatography (4 hours) 5. cis-trans isomerism (4 hours) 6. Electrophilic addition (8 hours) 7. Organic reactions of preparation and identification of compounds: Fischer esterification (methyl benzoate) (4 hours) 8. Grignard reaction (triphenylmethanol) (4 hours) 9. Electrophilic substitution of benzene derivatives (p-nitroacetanilide) (4 hours) 10. Isolation and conversion of compounds with their identification: caffeine from tea (4 hours), milk casein (4 hours) and oleic acid from oil (4 hours) 13. Diels-Alder reaction of conjugated dienes in eucalyptus oil (4 hours) 14. Compensation for unfinished exercises (4 hours) 						
Format of instruction	<input type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input type="checkbox"/> partial e-learning <input type="checkbox"/> field work			<input type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)			
Student responsibilities							
Screening student work (name the proportion of ECTS credits for each)	Class attendance	0.5	Research		Practical training		
	Experimental work	1.0	Report		(Other)		

<i>activity so that the total number of ECTS credits is equal to the ECTS value of the course)</i>	Essay		Seminar essay		(Other)	
	Tests	1.0	Oral exam		(Other)	
	Written exam	2.0	Project		(Other)	
Grading and evaluating student work in class and at the final exam	All exercises must be collapsed and made. The entrance exam is placed before the exercise, and during the same work, the students work in the laboratory. Students are obliged to keep a diary in which they enter the results of the experiment. The final written exam of the student accesses after the exercises done and the reviewed work journal. For the passing grade, at least 50% of the final exam is needed.					
Required literature (available in the library and via other media)	Title				Number of copies in the library	Availability via other media
	Internal Script for Laboratory Exercises					available
						10
Optional literature (at the time of submission of study programme proposal)						
Quality assurance methods that ensure the acquisition of exit competences	Consultations, student survey for subject and teacher evaluation, attendance records, analysis of the success of the colloquium and final exams.					
Other (as the proposer wishes to add)						