


KAPITAŁ LUDZKI
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez
 Unię Europejską w ramach
 Europejskiego Funduszu
 Społecznego

UNIA EUROPEJSKA
 EUROPEJSKI
 FUNDUSZ SPOŁECZNY


Course title		ECTS code	
Organic synthesis		13.3.0659	
Name of unit administrating study			
null			
Studies			
faculty	field of study	type	pierwszego stopnia
Wydział Chemii	Chemia	form	stacjonarne
		specjalty	chemia kosmetyków
		specialization	wszystkie
Teaching staff			
dr Aleksandra Walewska; mgr Katarzyna Olkiewicz			
Forms of classes, the realization and number of hours		ECTS credits	
Forms of classes		3	
Laboratory classes		classes - 45 h	
The realization of activities		tutorial classes – 10 h	
classroom instruction		student's own work – 20 h	
Number of hours		Total: 75 h - 3 ECTS	
Laboratory classes: 45 hours			
The academic cycle			
2023/2024 winter semester			
Type of course		Language of instruction	
obligatory		polish	
Teaching methods		Form and method of assessment and basic criteria for evaluation or examination requirements	
<ul style="list-style-type: none"> - conducting experiments - laboratory practice: making chemical experiences and preparing of results 		Final evaluation	
		Graded credit	
		Assessment methods	
		graded course credit based on individual grades obtained during the semester	
		The basic criteria for evaluation	
		The final grade is resultant of partial grades received during semester. Partial grades are giving for work quality and work organizing, troubleshooting and preparing reports. Criteria in accordance with rules of UG.	
Method of verifying required learning outcomes			
Required courses and introductory requirements			
A. Formal requirements			
Finished course of organic chemistry			
B. Prerequisites			
Understanding the most important reactions and physicochemical properties used compounds. Knowledge main rules of safety in laboratory.			
Aims of education			
<ul style="list-style-type: none"> - To acquaint students with all issues described in programme of exercises. - Increasing knowledge and skills in organic synthesis. - Familiarisation of students with work in laboratory on micro scale. 			
Course contents			
<ul style="list-style-type: none"> - Synthesis of organic compounds with different chemical properties.; - Technics of extract and purification obtained compounds. 			

- Analysis of purity using chromatographic technics, e.g. TLC or HPLC.;
- Analysis of NMR spectrums (for selected compounds).

Bibliography of literature

Literature required to pass the course

Gawroński J., Gawrońska K., Kacprzak K., Kwit M., Współczesna synteza organiczna, Wydawnictwo Naukowe PWN, Warszawa 2004;

Vogel A.I., Preparatyka organiczna, Wydawnictwo Naukowo-Techniczne, Warszawa 1984.

Tomasik P., Mechanizmy reakcji organicznych, Wydawnictwo Naukowe PWN, Warszawa 1998.

Extracurricular readings

McMurry J., Chemia organiczna t.1-5, Wydawnictwo Naukowe PWN, Warszawa 2003;

Morrisom R.T., Boyd R.N., Chemia organiczna t.1-2, Wydawnictwo Naukowe PWN, Warszawa 1985.

The learning outcomes (for the field of study and specialization)

Knowledge

- describe main characterisation of synthesized compound and give its chemical properties;
- characterize important techniques of purity the synthesized compound.;
- clarify rules of separation different substances using chromatographic methods;
- define solvents properties used during synthesis and purification.

Skills

- prepare synthesis of compounds on micro and macro scale
- accurately assort correct techniques and chemical equipment for synthesis;
- identify and assort purity of obtained compounds;
- analyse own work and draw conclusions using personal experimental results;
- keep rules of safety in laboratory.

Social competence

- organise own work and exhibit responsibility for personal workstation;
- appreciate meaning clearness in laboratory work;
- understand necessity of work according to procedures;
- keep caution during contacts with chemical substances.

Contact

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