COURSE UNIT DESCRIPTION

Course unit title	
Organic Chemistry II	

Lecturer(s)	Department
Gražina Petraitytė	Dept. Organic Chemistry, Vilnius University

Cycle	Type of the course unit
First	Compulsory

Mode of delivery	Period of delivery	Language of instruction
Face to face		English

Prerequisites and co-requisites
General chemistry (prerequisites), Organic chemistry I (prerequisites).

Number of credits	Student's total workload	Contact hours	Self-study hours
5	134	64	70

Programme Learning Outcomes to be developed.
A1. will apply appropriate terminology, nomenclature, units of measurement used in describing chemical substances and their structure. A3. will characterise the main reactions of inorganic, organic and biologically active substances. A7. will be able to explain physical phenomena and apply them for the examination of chemical substances. B3. will choose and compare the most appropriate materials and reaction conditions to achieve a specific goal B5. will synthesize materials using common methods; will describe various methods of synthesis. B6. will work with chemicals safely. B8. will be able to conduct standard laboratory procedures and use laboratory equipment. C1. will apply theoretical knowledge in solving quantitative and qualitative problems of both familiar and unfamiliar nature. C2. will plan problem-solving strategies. C3. will evaluate and mathematically process the data. D4. will acquire skills for self-development, study skills in order to study both chemistry and general literature on the world outlook.

Learning outcomes of the course unit	Teaching and	Assessment

	learning methods	methods
After successful completion of this course student should be able to: • Propose the retrosynthetic plan for given organic compound; • Prepare and present laboratory work report; • Synthesize organic molecules and assess their purity; • Read chemical text in English;	Laboratory work; Writing of laboratory work reports, presenting and defence of these reports in one-to-one conversation with instructor; Textbook reading.	All laboratory works must be done, laboratory reports must be compiled and defended.).

Topics	Contact work hours						Time and tasks of self-study	
	Lectures	Consultations	Seminars	Tutorials	Laboratory work	Total contact hours	Self-study	Tasks
Lab. work Synthesis of benzoic acid. Reduction of 3-nitroacetophenone					10			Textbook reading. Preparation of laboratory work reports.
Lab. work Synthesis of triphenylmethanol					10			Textbook reading. Preparation of laboratory work reports.
Lab. work Esterification of benzoic acid					10			Textbook reading. Preparation of laboratory work reports.
Lab. work Synthesis of 1,5-diphenyl-1,4-pentandiene-3-one					10			Textbook reading. Preparation of laboratory work reports.
Lab. work Identification of functional groups					4			Textbook reading. Preparation of laboratory work reports.
Lab. work Synthesis of 4-iodotoluene					10			Textbook reading. Preparation of laboratory work reports.
Lab. work					10			Textbook reading.

Synthesis of 6-methyl-2-thiouracil								Preparation of laboratory work reports.
Total					**64**			

Assesment strategy	**Weight %**	**Assessment period**	**Assessment criteria**
Laboratory work	10%	Every week	Safe work in the laboratory. Ability to get reliable results. All laboratory works must be done, laboratory reports must be compiled and defended in one-to one conversation with laboratory teacher. In case of Fail, student must repeat laboratory work.

Reading list

Author	**Year of publ.**	**Title**	**Publisher**	**Number of volumes in the library of faculty**
Main reading list				
T. W. G. Solomons, C. B. Fryhle	2000, 2004, 2008	Organic Chemistry	Wiley	71
J. McMurry	2003 2004	Organic Chemistry	Brooks/Cole	16
Additional reading list				
J. Clayden, N. Greeves, S. Warren, P. Wothers	2007	Organic Chemistry)	Oxford University Press	14