

<b>SCHOOL</b>	FACULTY OF ENVIRONMENT		
<b>ACADEMIC UNIT</b>	FOOD SCIENCE AND TECHNOLOGY		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	<b>FST201</b>	<b>SEMESTER</b>	<b>2</b>
<b>COURSE TITLE</b>	<b>ORGANIC CHEMISTRY</b>		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercise, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
Lectures		3	
Laboratory experiments		2	
<b>Total</b>		<b>5</b>	<b>7</b>
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>General background, special background, specialised general knowledge, skills development</i>	General background		
<b>PREREQUISITE COURSES:</b>			
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBSITE (URL)</b>			

## LEARNING OUTCOMES

### Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

### Upon successful completion of the course the student will be able to:

- Describe the basic principles of Organic Chemistry
- Identify the functional groups of organic compounds, understand the reactions and the mechanisms associated with them and the correlation between the structure of a compound and its properties.
- Predict the physicochemical properties of organic compounds from molecular structure.
- Identify and implement essential apparatus, instruments and processes in an Organic Chemistry lab

## General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology  
Adapting to new situations  
Decision-making  
Working independently  
Team work  
Working in an international environment  
Working in an interdisciplinary environment  
Production of new research ideas

Project planning and management  
Respect for difference and multiculturalism  
Respect for the natural environment  
Showing social, professional and ethical responsibility and sensitivity to gender issues  
Criticism and self-criticism  
Production of free, creative and inductive thinking

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Others...  
.....

- Adapting to new situations
- Critical thinking
- Decision-making
- Working independently
- Team work

## SYLLABUS

Structure of organic compounds, types of bonds, functional groups, structural and molecular formulas. Isomerism. Nomenclature of organic compounds. Spectroscopy. Saturated and unsaturated hydrocarbons. Benzene and aromatic compounds. Alcohols and ethers. Carbonyl compounds, carboxylic acids, esters, amides. Amines, amino acids, peptides, proteins, lipids. Ionic properties of amino acids, methods of studying proteins. Carbohydrates.

Molecular structure and physical properties.

### Typical lab experiments

- Molecular structure and physical properties
- Separations based on physical properties
- Separations based on chemical properties
- Solvents
- Thin layer chromatography
- Reactions of organic compounds
- Identification of organic compounds
- Preparation and isolation of a natural product

## TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	In class	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of information technologies in data collection, teaching and communication. Communication with students via e-mail, eClass, Viber.	
<b>TEACHING METHODS</b>  <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	<b>Activity</b>	<b>Semester workload</b>
	Lectures	117 hours
	Laboratory experiments	26 hours
	Total contact hours and training	<b>143 hours</b>
<b>STUDENT PERFORMANCE EVALUATION</b>  <i>Description of the evaluation procedure  Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other  Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	<ul style="list-style-type: none"> <li>• Language of assessment: Greek</li> <li>• Evaluation methods                             <ul style="list-style-type: none"> <li>- Midterm exam</li> <li>- Final exam</li> </ul> </li> </ul>	

## BIBLIOGRAPHY

- J. McMurry, Organic Chemistry
- Ι. Σπηλιόπουλος, Βασική οργανική χημεία
- Ν. Αργυρόπουλος, Ε. Κουτούλη-Αργυροπούλου, Κ. Λίτινας, Ε. Μαλαμίδου-Ξενικάκη, Α. Μαρούλης, Σ. Σπυρούδης, Κ. Τσολερίδης, Κ. Χατζηαντωνίου-Μαρούλη, Πειραματική Οργανική Χημεία

Performance Statistics of the last 2years			
Grade (descending order)	absolute frequency	relative frequency %	sum of success rates per class
ORGANIC CHEMISTRY			
10	4	3%	3%
9	5	4%	7%
8	20	17%	24%
7	22	18%	42%
6	70	58%	100%
	121	100%	