

<i>Adapting to new situations</i> <i>Decision-making</i> <i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Respect for the natural environment</i> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> <i>Others...</i>
Search, analysis and synthesis of data and information, using the necessary technologies Production of new research ideas Respect for the natural environment Promoting free, creative and inductive thinking	

(3) SYLLABUS

<p>Lesson 1. Macromolecules of living organisms and their building blocks.</p> <p>Lesson 2 Carbohydrates - Nucleotides and Nucleic Acids.</p> <p>Lesson 3 Amino Acids and Proteins & Lipids.</p> <p>Lesson 4 Biological Membranes.</p> <p>Lesson 5 Enzymes, properties, role of enzymes.</p> <p>Lesson 6 Mechanisms of Enzyme catalysis.</p> <p>Lesson 7 Coenzymes and Additive groups.</p> <p>Lesson 8 Elements of kinetics of enzymatic reactions.</p> <p>Lesson 9 Intermediate metabolism. Lesson 13 Introduction to metabolism.</p> <p>Lesson 10 Bioenergy.</p> <p>Lesson 11 Carbohydrate metabolism.</p> <p>Lesson 12 Lipid metabolism.</p> <p>Lesson 13 Amino acid metabolism & Nucleotide metabolism.</p> <p>Laboratory exercises:</p> <ol style="list-style-type: none"> 1. Preparation of solutions. 2. Chromatographic separations of proteins. 3. Photometry. 4. Determination of total Bradford protein concentration. 5. Centrifugation. 6. Electrophoresis.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face to face teaching, Experiential activities, Laboratory training												
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	<ul style="list-style-type: none"> • Use of ICT (power point) in Teaching • Use of ICT (power point) in Laboratory Training • Use of ICT in Communication with students (Learning process support through the electronic platform e-class). 												
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>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.</i> <i>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>	<table border="1"> <thead> <tr> <th>Activity</th> <th>Semester workload</th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td>39</td> </tr> <tr> <td>Laboratory</td> <td>12</td> </tr> <tr> <td>UNGUIDED STUDY</td> <td>32</td> </tr> <tr> <td>Study hours. Literature survey</td> <td>42</td> </tr> <tr> <td>Course total</td> <td>125</td> </tr> </tbody> </table>	Activity	Semester workload	Lectures	39	Laboratory	12	UNGUIDED STUDY	32	Study hours. Literature survey	42	Course total	125
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STUDENT PERFORMANCE EVALUATION	
<p><i>Description of the evaluation procedure</i></p> <p><i>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</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<ol style="list-style-type: none"> 1. The laboratories participate by 30% in the final grade. In order to be examined in theory, the student must have completed all the laboratories and have been successfully examined in them. 2. The main assessment criteria focus on understanding and correlating the knowledge that students gain from the course with other knowledge. Particular emphasis is placed on whether they have developed the ability to apply this knowledge to crop selection and to assess the impact of these changes on the environment. Emphasis is also placed on demonstrating critical ability and justifying the choices they make in each problem. 3. Evaluation is dynamic. It mainly involves problem solving. is done orally or in writing or with a combination of the two, with or without pre-examination on the basic principles of the course, with or without exculpatory advances and with other test or inventive methods, depending on the composition of the dynamics and the needs of the audience. 4. The above are done in the Greek language. For foreign language students (eg Erasmus students) conducted in English

(5) ATTACHED BIBLIOGRAPHY

<ul style="list-style-type: none"> ▪ <i>Οργανική Χημεία, L.G. Wade, JR., Εκδόσεις Τζιόλα, 7η Έκδοση.</i> ▪ <i>Οργανική Χημεία, John Mc Murry, Πανεπιστημιακές Εκδόσεις Κρήτης.</i> ▪ <i>Ετεροκυκλική Χημεία με μια Ματιά (1η έκδοση), JOHN A. JOULE, KEITH MILLS. Επιμέλεια: Β. Σαρλή, Εκδότης: Παρισιάνου Α.Ε. 2011.</i> ▪ <i>Βιοοργανική Χημεία, Λιακοπούλου-Κυριακίδου, Εκδόσεις: Ζήτη, Θεσσαλονίκη, 2004.</i> <p><i>Other sources:</i></p> <ul style="list-style-type: none"> ▪ <i>Journal of Organic Chemistry</i> ▪ <i>European Journal of Medicinal Chemistry</i> ▪ <i>Bioorganic & Medicinal Chemistry</i> ▪ <i>Carbohydrate Research</i>
