

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	AGRICULTURAL SCIENCES		
<b>DEPARTMENT</b>	FOOD SCIENCE AND TECHNOLOGY		
<b>LEVEL OF COURSE</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	<b>FST_305</b>	<b>SEMESTER OF STUDIES</b>	3 <sup>rd</sup>
<b>COURSE TITLE</b>	NUTRITION & NUTRITIONAL VALUE OF FOOD		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, 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>ECTS CREDITS</b>
Lectures		3	
<b>Total</b>		<b>3</b>	<b>5</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>	Specialised general knowledge		
<b>PREREQUISITE COURSES:</b>	There are no prerequisite courses		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek.		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBPAGE (URL)</b>	<a href="https://eclass.upatras.gr/">https://eclass.upatras.gr/</a>		

### 2. LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><i>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.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul>
<p>By the end of the course, the student will achieve the following learning outcomes:</p> <ul style="list-style-type: none"> <li>- Understand the role of nutrients in the normal functioning of the human body</li> <li>- Identify and evaluate the effects of excessive intake or deficiency of each category of nutrients</li> <li>- Be able to estimate the nutritional value of the various types of food</li> <li>- Associate pathologies with nutritional choices</li> <li>- Implement the knowledge acquired in the development of balanced nutrition plans</li> </ul>
<p><b>General Competences</b></p> <p><i>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?</i></p> <p><i>Search for, analysis and synthesis of data and Search for, analysis and synthesis of data and information, with</i></p>

<i>information, with the use of the necessary technology</i> <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>the use of the necessary technology</i> <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>
<p>-Research, analysis and synthesis of data, including the use of the necessary technologies -  Decision-making - Independent work - Teamwork - Respect of diversity and multiculturalism -  Promotion of free, creative and deductive thinking</p>	

### 3.SYLLABUS

<p>-Introduction to the Science of Nutrition: Elements of Human Nutrition, dietary requirements, energy balance, food composition, determination of required energy intake -Proteins: Structural units (amino acids), Role of proteins in nutrition, Digestion, Absorption, Metabolism, Diseases; - Carbohydrates: Intake, Digestion, Absorption, Absorption, Metabolism, Blood glucose concentration, Diabetes mellitus, Glycemic effect of food, Fiber: Lipids, Digestion, Absorption, Absorption, Metabolism, Adipose tissue, Diseases (Obesity, Atherosclerosis. -Water: Structure, Physical properties, Benefits for the human body, Absorption, Excretion. -Vitamins -Minerals: Calcium, Iron, Iodine (sources, absorption, diseases).</p>
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### 4.TEACHING AND LEARNING METHODS - EVALUATION

<p><b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i></p>	Face-to-face												
<p><b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>Use of Information and Communication Technologies (ICTs) (e.g. powerpoint) in teaching.  Communication with students: through e-mail, department's website and platform e-class.  The lectures content of the course for each chapter are uploaded on the internet, in the form of a series of .pdf files, where students can freely download them from the platform e-class.upatras.gr</p>												
<p><b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail.</i></p> <p><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></p> <p><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></p>	<table border="1"> <thead> <tr> <th><i>Activities</i></th> <th><i>Work Load per semester</i></th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td>39</td> </tr> <tr> <td>Literature study and review</td> <td>47</td> </tr> <tr> <td>Optional 20-minute presentation on cutting-edge topics</td> <td>13</td> </tr> <tr> <td>Group projects</td> <td>26</td> </tr> <tr> <td><b>Total number of hours for the Course (25 hours of work-load per ECTS credit)</b></td> <td><b>125</b></td> </tr> </tbody> </table>	<i>Activities</i>	<i>Work Load per semester</i>	Lectures	39	Literature study and review	47	Optional 20-minute presentation on cutting-edge topics	13	Group projects	26	<b>Total number of hours for the Course (25 hours of work-load per ECTS credit)</b>	<b>125</b>
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<p><b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation</i></p>	<p>Language of Evaluation: Greek. Evaluation methods:  - Final written examinations in the theoretical part of the course (100% of the final grade).  - Optional group presentation (up to 3 persons) 20 minutes on cutting-edge topics (20% increase in the grade of the written</p>												

<p><i>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>	<p>examinations of the theoretical part of the course, for grades &gt; 4,2)</p> <p>Assessment criteria are presented and explained to students at the beginning of the semester.</p>
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#### **5. ATTACHED BIBLIOGRAPHY**

<ul style="list-style-type: none"> <li>- Galanopoulou, N., Zambetakis, G., M., M., and Sifaka A., Nutrition and Food Chemistry, Stamoulis Publications, Athens 2007</li> <li>- Bender D., Introduction to Nutrition, Taylor and Francis, 2002</li> <li>- Taylor S.L., Advances in Food and Nutrition Research , Academic Press, 1998</li> </ul> <p>Relevant journals:</p> <ul style="list-style-type: none"> <li>- European Journal of Nutrition</li> <li>- Journal of Nutrition Education and Behavior</li> <li>- Journal of Nutrition</li> </ul>
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