

MODULE LAYOUT

1. GENERAL

SCHOOL	FOOD AND NUTRITIONAL SCIENCES		
DEPARTMENT	Food Science and Human Nutrition		
STUDY LEVEL	UNDERGRADUATE		
MODULE CODE	3430	ΕΞΑΜΗΝΟ ΣΠΟΥΔΩΝ	7th
MODULE TITLE	Functional Foods and Nutrition		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	ECTS	
Lectures and Practicals		3	
<i>Προσθέστε σειρές αν χρειαστεί. Η οργάνωση διδασκαλίας και οι διδακτικές μέθοδοι που χρησιμοποιούνται περιγράφονται αναλυτικά στο 4.</i>			
COURSE TYPE	Field of Science		
PREREQUISITES	No		
LANGUAGE	Greek (in English for Erasmus Students)		
IS THE COURSE OFFERED for ERASMUS STUDENTS?	Yes		
ΗΛΕΚΤΡΟΝΙΚΗ ΣΕΛΙΔΑ ΜΑΘΗΜΑΤΟΣ (URL)	https://oeclass.aua.gr/eclass/courses/ETDA193/		

2. LEARNING OUTCOMES

Learning Outcomes
<p>•</p> <p>The course ‘Functional Foods and Nutrition’ is a course of special interest in the field of Human Nutrition.</p> <p>It aims to familiarize the students with the concept of functional and novel foods which consists a major subject of innovation in Food Science and Human Nutrition.</p> <ul style="list-style-type: none"> • Upon course completion, the student will have acquired the following skills: • Knowledge of basic concepts and recent developments in the field functional and novel foods. • Appreciation of innovation in development and growth • Understanding of complex concepts such as bioactivity and bioavailability • Exposure to current methodology for the approaching of issues of bioactivity and to the legal framework that guides claims of functional foods. • Development of opinion on functional foods to address multiple audiences such as scientists from other disciplines, the food industry, special audiences or the general public. <p>The knowledge and skills acquired will enable the student to pursue further studies in the future in the field of Human Nutrition or in relating scientific fields.</p>
General Competences
<p>Acquisition, analysis and synthesis of data and information with the use of relevant technologies.</p> <p>Knowledge flexibility and adaption in new scientific environment</p> <p>Independent work</p> <p>Work in interdisciplinary environment</p>

Development of new research ideas Respect and consideration on issues of diversity, difference and multiculturalism Respect to ecosystems Social and ethical responsibility Critical thinking Promotion of free, creative and analytical thinking
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3. MODULE CONTENT

<ol style="list-style-type: none"> 1. Introduction and basic concepts. Current trends in the Food Industry in Europe and in the USA. 2. Functional foods: an overview 3. Food Composition. Food Composition Datasets in Greece and abroad. 4. Recommended Daily Intake 5. The Concepts of Bioavailability, Bioactivity and Bioactivity. Biomarkers 6. Evidence based methodology USDA/EFSA. Bioactivity Databases 7. Nutrition and Health Claims 8. Approved and non-approved claims in the EU 9. Bioactive phytochemical ingredients-Antioxidant ingredients 10. Functional Foods and Innovation in the Food Industry. 11. Guidelines and Dietary Recommendations in Greece and in the world. Food reformulation. Novel foods. 12. Class project: development of a new functional food. 13. Student Presentations of projects

14. TEACHING and LEARNING METHODS - Evaluation

TEACHING METHOD	Lectures. Direct. distant learning		
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	Lectures with the aid of slides and videos. Lecture material available on e-class platforms, also employed for the communication with the students.		
TEACHING ORGANISATION	Δραστηριότητα	Φόρτος Εξαμήνου	Εργασίας
	Lectures	13	
	Exercises	7	
	Independent study	55	
	Total contact hours and training	75	
STUDENTS EVALUATION	Written exam that includes <ul style="list-style-type: none"> • Multiple choice questions • Short answer questions • Critical evaluation of concepts 		

15. BIBLIOGRAPHY

<p>-</p> <p>Book GIBNEY M., VORSTER H., KOK F. ΕΙΣΑΓΩΓΗ ΣΤΗ ΔΙΑΤΡΟΦΗ ΤΟΥ ΑΝΘΡΩΠΟΥ, ΕΚΔΟΣΕΙΣ ΠΑΡΙΣΙΑΝΟΣ Α.Ε.</p> <p>Journals Food Technology, Food Chemistry, American Journal of Clinical Nutrition, European Journal of Nutrition, International Journal of Food Sciences and Nutrition, Lancet, Nutrition</p>

