COURSE OUTLINE

1. GENERAL

SCHOOL	Food and Nutritional Science		
ACADEMIC UNIT	Department of Food Science and Human Nutrition		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	3430	**SEMESTER**	7th
COURSE TITLE	Functional Foods in Nutrition		
INDEPENDENT TEACHING ACTIVITIES *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*		**WEEKLY TEACHING HOURS**	**CREDITS**
		3	3
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).			
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge		
PREREQUISITE COURSES:	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (in English)		
COURSE WEBSITE (URL)	https://oeclass.aua.gr/eclass/courses/ETDA193/		

2. 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*

"Functional Foods and Nutrition" is a special course in Nutritional Science.

The course aims to familiarize students with the field of functional and novel foods so that they can understand one of the aspects of innovation in Food Science and Human Nutrition

Upon successful completion of the course the student:

- Will have improved understanding of recent developments in Food and Nutrition Science.
- Will have appreciated the importance of innovation in food product development

• Will have acquired the ability to understand complex concepts such as the concept of bioactivity of ingredients and foods
• Will have understood the research methodologies for approaching these concepts as well as the existing framework for bioactivity and health claims
• Will be able to form and express an opinion on functional food issues to multiple audiences such as the scientific community of other fields of knowledge, the Food Industry, special audiences in the professional field, and the community as a whole.
The knowledge, scientific abilities and skills that the student will have acquired with this introductory course can be utilized if they wish to proceed to a subsequent cycle of studies in this or related scientific subjects.

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
Teamwork
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
……
Others…
…….

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Adapting to new situations
Working independently
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Respect for difference and multiculturalism
Respect for the natural environment
Production of free, creative and inductive thinking

3. SYLLABUS

Introduction to the basic concepts. Functional foods
Functional foods and modern trends in the food industry
Food composition. Food Composition Databases in Greece and internationally
Recommended Daily Intake
Nutrition Labeling
Nutrition Claims
Nutritional Profile. Nutritional Scores.
Ultra-Processed Foods. The NOVA system
The Concepts of Bioaccessibility, Bioactivity and Bioactivity
Biomarkers

Evidence based methodology USDA/EFSA. Health Claims. Approved and Unapproved Claims in the EU Current research on Bioactive Phytochemicals-Antioxidants

4. TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>DELIVERY
Face-to-face, Distance learning, etc.</td><td>Face to face

Additional educational material, optional, posted on e class and available for asynchronous distance learning

Group work supported by the course's teaching team during workshops held in class.</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>• Lectures using slides and selected videos
• Workshop to familiarize with databases during lectures
• Workshop to familiarize with authorised and nonauthorised nutrition and health claims
• Support of the learning process and communication with students through the electronic platform e-class</td></tr>
<tr><td>TEACHING METHODS
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</td><td><table><tr><th>Activity</th><th>Semester workload</th></tr><tr><td>Lectures</td><td>13</td></tr><tr><td>Practical exercises focusing on the application of methodologies</td><td>7</td></tr><tr><td>Independent Study</td><td>55</td></tr><tr><td>Total Course</td><td>75</td></tr><tr><td>Course total</td><td></td></tr></table></td></tr>
<tr><td>STUDENT PERFORMANCE EVALUATION
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</td><td>Written final exam including:
• Multiple choice questions
• Short answer questions</td></tr>
</table>

Specifically defined evaluation criteria are given, and if and where they are accessible to students.	

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:
ΛΕΙΤΟΥΡΓΙΚΑ ΤΡΟΦΙΜΑ. Ο ΡΟΛΟΣ ΤΟΥΣ ΣΤΗΝ ΠΡΟΑΓΩΓΗ ΤΗΣ ΥΓΕΙΑΣ. ΚΟΥΤΕΛΙΔΑΚΗΣ ΑΝΤΩΝΙΟΣ

- Related academic journals:
Food Technology, Food Chemistry, American Journal of Clinical Nutrition, European Journal of Nutrition, International Journal of Food Sciences and Nutrition, Lancet, Nutrition

-Additional Material:
Websites and reports of relevant international organisations (eg WHO, FAO, EuroFIR, EFSA)