# Special Topics in Food Science and Technology

FACULTY/SCHOOL	FACULTY OF ENVIRONMENT					
DEPARTMENT	FOOD SCIENCE AND TECHNOLOGY					
LEVEL OF STUDY	UNDERGRADUATE					
COURCE UNIT CODE	FST934		SEMESTER	7	L L	
COURCE TITLE	SPECIAL TOPICS IN FOOD SCIENCE AND TECHNOLOGY					
INDEPENDENT TEACHII	NG ACTIVITIES					
in case credits are awarded for separa	ite components/parts of the WEEKLY				CREDITS	
course, e.g. in lectures, laboratory e	exercises, etc. If credits are TEACHNG (ECTS)					
awarded for the entire course, give th	_				(2013)	
the total cre						
		Lectures	3			
Tutoring						
Laboratory						
		Total	3		5	
Add rows if necessary. The organization	Add rows if necessary. The organization of teaching and the					
teaching methods used are described	n detail under	section 4				
COURSE TYPE	General Know	wledge				
Background knowledge,	Skills Develop <mark>ment                                    </mark>					
Scientific expertise,	Scientific exp	ertise				
General Knowledge,						
Skills Development						
PREREQUISITE COURSES:	//					
LANGUAGE OF INSTRUCTION:	Greek/English					
LANGUAGE OF	Greek/Englis	h				
EXAMINATION/ASSESSMENT:						
THE COURSE IS OFFERED TO	Yes (Greek/E	nglish)				
ERASMUS STUDENTS						
COURSE WEBSITE (URL)						

#### **LEARNING OUTCOMES**

#### **Learning Outcomes**

The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult:

## APPENDIX A

- Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.
- Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and **APPENDIX B**
- Guidelines for writing Learning Outcomes

The objective of this course is to offer students the opportunity to delve into contemporary and cutting-edge topics as well as recent advances in Food Science and Technology.

After completing this course, students must be able to:

- perceive current trends in food science and technology, new achievements and "state-of-the-art" trens in Food Science and Technology
- Have a critical view on new concerns and new knowledge and argue on current issues in their science
- Assess the validity or reliability of information presented in the media about Food Science

### **General Competences**

Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

Search for, analysis and synthesis of data Project planning and management and information by the use of appropriate Respect for diversity and multiculturalism

technologies, Environmental awareness

Adapting to new situations Social, professional and ethical responsibility and sensitivity to gender

Decision-making issues

Individual/Independent work Critical thinking

Group/Team work Development of free, creative and inductive thinking

Working in an international environment .....

Working in an interdisciplinary (Other.....citizenship, spiritual freedom, social awareness, altruism etc.)

environment .....

Introduction of innovative research

- 1. Researching, analyzing, and synthesizing data and information with the use of suitable technologies
- Working autonomously
- 3. Working in a global context
- 4. Generating new research ideas
- 5. Promoting free, creative, and deductive reasoning

#### **COURSE CONTENT**

The course comprises of lectures by Department Faculty on current research topics within their discipline or contemporary topics of their choice, lectures by professionals from the food industry, field trips to distinguished enterprises and food industries. The dynamic nature of the course mandates that it is updated annually with new topics that reflect scientific developments. Sample topics include: The food system; Consumer trends, factors affecting them and the role of Food Science; From field to plate; Pros and cons of organic food; Processed and packaged vs. raw and bulk; Sustainable use of natural resources; Local food vs. global marketing; Chemistry and functionality of food constituents; The relationship between composition/structure and functionality/nutritional value of food; The role of Food Scientists in developing new foods; Are harmful substances (e.g., trans fatty acids, acrylamide, oxidation products, allergens) more likely in processed/packaged food; The verdict on protein, fat, and sugar substitutes; Synthetic additives: detection, labeling, thresholds, licensed ingredients, national and international regulation; Functional and novel foods, nutraceuticals, natural health supplements, etc.: differences, standards, traditional and novel uses, risks and challenges; Food preservation and safety: toxins, impact of processing on quality; Biotechnology and nanotechnology in the food industry.

# TEACHING METHODS--ASSESSMENT

MODES OF DELIVERY	Face-to-face, in-class lecturing
Face-to-face, in-class lecturing,	race-to-race, in-class rectaining
distance teaching and distance	
learning etc.	
USE OF INFORMATION AND	Power point presentation, Whiteboard writing, Communication with students through e-
COMMUNICATION TECHNOLOGY	class and e-mails

Use of ICT in teaching, Laboratory Education, Communication with students						
OURSE DESIGN	Activity/Method	Semester workload				
Description of teaching techniques,	Lectures	72	7			
practices and methods:	Individual or team	25				
Lectures, seminars, laboratory	project					
practice, fieldwork, study and analysis	Seminars	20				
of bibliography, tutorials, Internship,						
Art Workshop, Interactive teaching,						
Educational visits, projects, Essay writing, Artistic creativity, etc.		_				
The study hours for each learning		\ \				
activity as well as the hours of self-						
directed study are given following the						
principles of the ECTS.	Total conta <mark>ct</mark> hours and	117				
	training	117				
STUDENT PERFORMANCE	60% final written examination that includes:					
EVALUATION/ASSESSMENT METHODS	-multiple choice questions					
Detailed description of the evaluation						
procedures:	-fill-in the blanks questions					
Language of evaluation, assessment	-short answer questions					
methods, formative or summative						
(conclusive), multiple choice tests,	30% individual or team project					
short- answer questions, open-ended questions, problem solving, written	10% in class participation (contribution to discussions, seminars, lectures)					
work, essay/report, oral exam,						
presentation, laboratory work,						
otheretc.						
Specifically defined evaluation criteria						
the state of the s						

## SUGGESTED READING:

To be updated every semester.

are accessible by the students.

are stated, as well as if and where they