

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	AGRICULTURAL SCIENCE		
<b>ACADEMIC UNIT</b>	FOOD SCIENCE AND TECNOLOGY		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	FST_700	<b>SEMESTER</b>	7
<b>COURSE TITLE</b>	INNOVATION AND ENTREPRENEURSHIP IN FOOD PRODUCTION		
<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>CREDITS</b>
Lectures, seminars		4	5
<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>	Specialized 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 WEBSITE (URL)</b>			

### 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>Upon successful completion of the course, students will be able to successfully complete the following:</p> <ul style="list-style-type: none"> <li>• Design and execution of a controlled new food production project.</li> <li>• Choosing, conducting and summarizing the results of appropriate organoleptic and objective methods for food assessment.</li> <li>• Development and designation of a new product, development of the standard recipe, computer analysis of the nutritional content of the food, way of presentation (demonstration of food preparation).</li> <li>• Design and study of product production problem.</li> <li>• Create a written plan and timetable for data collection and resolution of any problems encountered (including the evaluation of new components or manufacturing methods, creation of a new food product or evaluation of a product for specific markets).</li> <li>• Find and review the bibliography that is relevant to the particular problem.</li> </ul>

- Use the principles of interaction of food ingredients to improve and redefine the approach as product development progresses and may change the interpretation of the data.
- Demonstration of the ability to communicate the results of the project, by writing an appropriate report, evaluating it and presenting it in a seminar.

### 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?*

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

Generally, by the end of this course the student will, furthermore, have developed the following abilities (from the list above):

- Adaptation to new situations
- Decision making
- Autonomous (Independent) work
- Group work
- Development of criticism and self-criticism
- Development of creative and inductive thinking

### 3. SYLLABUS

Students will explore their creativity through a combination of a food product designer trainer who will include organoleptic and objective quality assessment, prescription development, problem solving, experimental design, and written and oral product communication. I

Individually or in groups, students will focus on assessing new components or technologies, creating new products, and evaluating the marketability of a new product.

The course is designed to introduce students into the process of developing new food products for marketing, for special needs or for specific purposes.

The course makes use of the knowledge acquired to this stage and includes:

- Organoleptic and objective evaluation (methods, conduct, analysis data, interpretation and presentation)
- Challenges to innovation: development, organoleptic and nutritional assessment
- Design of a special product
- Define the problem
- Schedule of the project
- Review of the bibliography
- Choice of appropriate organoleptic and objective evaluation tools
- Run the project
- Growth of the food as the goal
- Relevant legislation
- Collecting data

- Data aggregation and analysis
- Product production process
- Quality and lifespan
- Check points
- Communication of results
- Submission - presentation of the project

#### 4. TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;"><b>DELIVERY</b></p> <p style="text-align: center;"><i>Face-to-face, Distance learning, etc.</i></p>	Face-to-face	
<p style="text-align: center;"><b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b></p> <p style="text-align: center;"><i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>Use of ICTs in teaching.</p> <p>Use of e-class –all the lectures in a series of .ppt files, where students have access.</p> <p>Communication with students: use of the e-mail and the department’s website.</p>	
<p style="text-align: center;"><b>TEACHING METHODS</b></p> <p><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>	<b>Activity</b>	<b>Semester workload</b>
	Lectures (3 conduct hours per week x 13 weeks)	39
	Seminars (1 conduct hour per week X 13 weeks)	13
	Final examination (3 conduct hours)	3
	Hours for private study of the student and preparation of an assignment	70
	<p><b>Total number of hours for the Course (25 hours of work-load per ECTS credit)</b></p>	<b>125</b>
<p style="text-align: center;"><b>STUDENT PERFORMANCE EVALUATION</b></p> <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>	<p>Student assessment is mainly based on the written examination at the end of the semester, which includes questions that evaluate both the acquired knowledge by students and their ability to utilize them critically.</p> <p>Grading scale: 1 to 10.</p> <p>Minimum passing grade: 5.</p> <p>Examination time: 3 hours.</p> <p>However, students can gain extra points in their final grade by working on an assignment provided during the term. This is not compulsory but can significantly contribute to their final personal record.</p> <p>Grades are based 25% on assignment and 75% on final exams.</p>	

## 5. ATTACHED BIBLIOGRAPHY

1. Aluko, R.E. (2012). Functional Foods and Nutraceuticals. Springer.
2. Earle, M.D. and Earle, R.L. (2008). Case Studies in Food Product Development. Woodhead.
3. Fuller, G.W. (2011). New Food Product Development: From Concept to Marketplace, Third Edition. Taylor & Francis.
4. Lawless, H.T. (2012). Laboratory Exercises for Sensory Evaluation. Springer.
5. Lawless, H.T. and Heymann, H. (2010). Sensory Evaluation of Food: Principles and Practices. Springer.
6. MacFie, H. (2007). Consumer-Led Food Product Development. CRC Press.
7. Moskowitz, H.R., Beckley, J.H. and Resurreccion, A.V.A. (2012). Sensory and Consumer Research in Food Product Design and Development. John Wiley & Sons.
8. Rychlik, M. (2011). Fortified Foods with Vitamins: Analytical Concepts to Assure Better and Safer Products. John Wiley & Sons.
10. Smith, J. and Charter, E. (2011). Functional Food Product Development. John Wiley & Sons.