

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	FOOD AND NUTRITIONAL SCIENCES		
<b>ACADEMIC UNIT</b>	FOOD SCIENCE & HUMAN NUTRITION		
<b>LEVEL OF STUDIES</b>	INTEGRATED MASTER		
<b>COURSE CODE</b>	<b>257</b>	<b>SEMESTER</b>	<b>7</b>
<b>COURSE TITLE</b>	<b>TECHNOLOGY OF FOODS OF PLANT AND ANIMAL ORIGIN</b>		
<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	3	3	
Laboratory	2	2	
<b>Total</b>	<b>5</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>	Food Microbiology, Food Engineering, Food Chemistry, Statistics, Unit Operations in Food Engineering, Food Preservation, Food Plant Design and Equipment		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes (in English)		
<b>COURSE WEBSITE (URL)</b>			

## (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*

*The course material includes: Methods of preservation and processing of food of plant and animal origin (citrus fruits, stone fruits, tomatoes, legumes, potatoes, cereals, olive, etc. Properties and packaging honey. Flow charts for selective fruit and vegetables processing. Modified atmosphere packaging of fresh meat, cooked sausages, fermented sausages, etc.*

*Upon successful completion of this course the student will gain knowledge and become familiar with the technology and production of the main products of plant and animal origin.*

### 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>

*Retrieve, analyze and synthesize data and information*

*Work in teams*

## (3) SYLLABUS

1. Course Structure/Requirements. Introduction.
2. Table olives technology (olive varieties, trade preparations, processing, packaging, preservation).
3. Olive oil technology.
4. Industrial processing of tomato.
5. Fruit processing. Technology of canned peaches. Flowchart of apricot juice production.

<ol style="list-style-type: none"> <li>6. Vegetable processing. Technology of canned and frozen peas</li> <li>7. Citrus processing. Production and technology of orange juice.</li> <li>8. Technology of jam production.</li> <li>9. Manufacturing technology of honey. (Definition and origin, characteristics, equipments and processing line, quality).</li> <li>10. Cereal technology. Milling wheat - Flour properties.</li> <li>11. Bread manufacturing technology. Gluten-free products.</li> <li>12. Technology of pastry products - Effect of flour properties.</li> <li>13. Selected topics presented by the students.</li> </ol> <p>14. The above lectures will be complemented with laboratory experiments on the following topics:</p> <ol style="list-style-type: none"> <li>15. Sensory evaluation of olive oil and table olives.</li> <li>16. Production and determination of quality parameters of tomato ketchup.</li> <li>17. Jam production.</li> <li>18. Preparation and determination of quality parameters of bakery products (e.g., cookies).</li> </ol> <ol style="list-style-type: none"> <li>19. Introduction to Technology of Foods of Animal origin</li> <li>20. Chemical and biochemical composition of muscles.</li> <li>21. Transformation of the muscular system into meat</li> <li>22. Meat product technologies</li> <li>23. Preservation of fresh meat</li> <li>24. Additives and ingredients</li> <li>25. Cooked products</li> <li>26. Fermented meats</li> <li>27. Evaluation and interventions in the production of food of animal origin</li> <li>28. Fish technology</li> </ol>
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#### (4) TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b>	Face-to-face	
<i>Face-to-face, Distance learning, etc.</i>		
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b>	In class teaching (power point presentations)	
<i>Use of ICT in teaching, laboratory education, communication with students</i>	Laboratory exercises in teams	
	Term paper (in teams)	
	Student contact electronically	
<b>TEACHING METHODS</b>	<b>Activity</b>	<b>Semester workload</b>
<i>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.</i>	Lectures	38
	Laboratory meetings	14
	Term paper	33
	Lectures	40
	<b>Total contact hours and training</b>	<b>125</b>
<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 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>I. Final written examination (60% of the final course grade) that includes:</p> <ul style="list-style-type: none"> <li>- Multiple choice questions or Right/Wrong questions</li> <li>- Short answer questions</li> <li>- Judgment questions</li> <li>- Flow charts of product processing.</li> </ul> <p>II. Term paper (40%)</p>
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#### (5) ATTACHED BIBLIOGRAPHY

S.A. Georgakis, K.P. Vareltzis, I.A. Ambrosiadis, 2002. Food Technology of Animal Origin, Modern Education Publications, Thessaloniki.

Σ.Β. Ramantanis 2005. Meat and its Products Technology, Modern Education Publications, Thessaloniki.

R.A. Lawrie 1998. Lawrie's Meat Science, Sixth Edition, Woodhead Publishing Limited, Cambridge, UK.

ToldráF. (ed) 2010. Handbook of meat processing, Wiley - Blackwell.

ToldráF. (ed) 2009. Safety of meat and processed meat, Springer.

ΚΑΡΑΟΥΛΑΝΗΣ Γ.Δ. 2007. ΤΕΧΝΟΛΟΓΙΑ ΕΠΕΞΕΡΓΑΣΙΑΣ ΟΠΩΡΟΚΗΠΕΥΤΙΚΩΝ, ΕΚΔΟΣΕΙΣ ΣΤΑΜΟΥΛΗΣ Α.Ε., ΑΘΗΝΑ.

ΒΑΣΙΛΑΚΑΚΗΣ Μ. 2010. ΜΕΤΑΣΥΛΛΕΚΤΙΚΗ ΦΥΣΙΟΛΟΓΙΑ ΜΕΤΑΧΕΙΡΙΣΗ ΟΠΩΡΟΚΗΠΕΥΤΙΚΩΝ ΚΑΙ ΤΕΧΝΟΛΟΓΙΑ. 2Η ΕΚΔΟΣΗ, ΕΚΔΟΣΕΙΣ ΓΑΡΤΑΓΑΝΗΣ, ΘΕΣΣΑΛΟΝΙΚΗ.