

COURSE OUTLINE

1. GENERAL

SCHOOL	AGRICULTURAL SCIENCES		
ACADEMIC UNIT	FOOD SCIENCE AND TECHNOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	FST_202	SEMESTER OF STUDIES	SECOND
COURSE TITLE	FOOD CHEMISTRY		
INDEPENDENT TEACHING ACTIVITIES <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>	WEEKLY TEACHING HOURS	CREDITS	
Lectures and laboratory work	3 (lect.) 2 (lab.)	5	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Compulsory specialised general knowledge		
PREREQUISITE COURSES:	Typically, there are not prerequisite course.		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek / English		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	https://eclass.upatras.gr/		

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*

After successfully completing the course, students will be able to comprehend the basic principles of the chemistry of food constituents, of nutrition and effect of food constituents in human health, of the chemical composition of food, of food analysis with emphasis in the use of analytical techniques.

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*

*Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity*

<i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> <i>.....</i> <i>Others...</i> <i>.....</i>
Decision-making Working independently Team work Project planning and management Working in an interdisciplinary environment	

3. SYLLABUS

<p>Introduction in the chemistry of foods. Chemistry of food constituents (proteins, lipids, carbohydrates, water and inorganic constituents, vitamins, enzymes, phenolics, acids, alcohols, colourants, flavour compounds, additives). Introduction in nutrition, effect of food constituents in human health. Chemical composition of foods (dairy products, cereals, fruits and vegetables, legumes, meat and meat products, eggs, oils and lipids, sweeteners, spices, alcoholic and non-alcoholic beverages, potable water). Emphasis in the use of special analytical techniques in food analysis.</p>
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4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Lectures and Laboratory practice face to face.	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of Information and Communication Technologies (ICTs) (e.g. powerpoint) in teaching. Notes with the content of the course are uploaded on the internet, where from the students can freely download them using a password which is provided to them at the beginning of the studies.	
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <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> <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>	Activity	Semester workload
	Lectures (3 conduct hours per week x 13 weeks)	39
	Laboratory work (2 conduct hours per week x 10 weeks)	20
	Laboratory reports (2 hours per week x 8 reports)	16
	Final examination (3 conduct hours)	3
	Hours for private study of the student	47

	Total number of hours for the Course (25 hours of work-load per ECTS credit)	125 hours (total student work-load)
<p style="text-align: center;">STUDENT PERFORMANCE EVALUATION</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>	<ol style="list-style-type: none"> 1. Written examination after the end of the semester. The mark constitutes the 75% of the final grade ($G_{75\%}$). Minimum passing grade: 5. 2. Reports following completion of each laboratory experiment. The mean mark constitutes the other 25% of the final grade ($G_{25\%}$). Minimum passing grade: 5. <p>The final grade for the course is calculated by the final grade in the Lab (25%) and the grade of the final written examination (75%). The student must have secured a minimum grade of 5 in both Lab and the final written examination.</p>	

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1. ΧΗΜΕΙΑ ΤΡΟΦΙΜΩΝ, BELITZ HANS - DIETER, GROSCH WERNER, SCHIEBERLE PETER. ΕΚΔΟΣΕΙΣ Α. ΤΖΙΟΛΑ & ΥΙΟΙ Ο.Ε.
2. ΧΗΜΕΙΑ ΤΡΟΦΙΜΩΝ, ΜΠΟΣΚΟΥ Δ. ΕΚΔΟΣΕΙΣ ΓΑΡΤΑΓΑΝΗΣ ΆΓΙΣ-ΣΑΒΒΑΣ
3. ΔΙΑΤΡΟΦΗ ΚΑΙ ΧΗΜΕΙΑ ΤΡΟΦΙΜΩΝ, ΓΑΛΑΝΟΠΟΥΛΟΥ ΚΩΝΣΤΑΝΤΙΝΑ, ΖΑΜΠΕΤΑΚΗΣ ΓΙΑΝΝΗΣ, ΜΑΥΡΗ - ΒΑΒΑΓΙΑΝΝΗ ΜΑΙΡΗ, ΣΙΑΦΑΚΑ ΑΘΑΝΑΣΙΑ. ΕΚΔΟΣΕΙΣ ΣΤΑΜΟΥΛΗ ΑΕ