

COURSE LAYOUT

1. GENERAL

SCHOOL	Animal Biosciences		
DEPARTMENT	Animal Science		
STUDY LEVEL	Undergraduate		
COURSE CODE	3390	SEMESTER	6 th
COURSE TITLE	FOOD CHEMISTRY		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	ECTS
Theory: Lectures		3	5
Laboratory: practicals		2	
COURSE TYPE	Scientific Area		
PREREQUISITES	Organic Chemistry , Physical Chemistry, Analytical Chemistry, Inorganic chemistry		
LANGUAGE	Greek		
IS THE COURSE OFFERED for ERASMUS STUDENTS?	Yes (in English)		
COURSE WEB PAGE	https://mediasrv.aua.gr/eclass/courses/ETDA130/		

2. LEARNING OUTCOMES

Learning Outcomes
<p>This module aims to provide students with knowledge of important chemical components of foods, and their impact on food quality during processing and storage.</p> <ul style="list-style-type: none"> • Students should be able to: <ul style="list-style-type: none"> State the structures and discuss the properties of proteins, lipids, carbohydrates, vitamins. Discuss the effects of processing and storage on these components during processing and storage. Discuss the importance of non-enzymatic browning on food production and preservation. Describe selected permitted food additives and discuss their impact on food quality and/or safety. Discuss the formation of flavor components in food Describe the undesirable food constituents (toxicants)
General Competenses
<ul style="list-style-type: none"> - Retrieve, analyse and synthesise data and information, with the use of necessary technologies - Adapt to new situations - Make decisions - Work autonomously - Future research - Work in teams - Respect natural environment - Be critical and self-critical - Advance free, creative and causative thinking

3. MODULE CONTENT

<ol style="list-style-type: none"> 1. Water and Ice 2. Carbohydrates 3. Lipids 4. Amino acids, peptides, enzymes and Proteins 5. Vitamins 6. Minerals 7. Food Additives 8. Colorants 9. Flavors 10. Toxicants 	
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4. TEACHING and LEARNING METHODS - Evaluation

TEACHING METHOD	Teaching in the auditorium, bibliographic work, lab exercises	
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	Power point presentations on lectures, use of information data in the lab. Communication with students via open eclass platform and e-mail.	
TEACHING ORGANISATION	<i>Activity</i>	<i>Φόρτος Εργασίας Εξαμήνου</i>
	Lectures	39 hours
	Laboratory work	26 hours
	Individual study	60 hours
	Total contact hours and training	125
STUDENTS EVALUATION	<p>I. Theory Final Exam, written or oral, of increasing difficulty, which may include Multiple choice test, Questions of brief answer, Questions to develop a topic, Judgment questions and Exercise solving. Marking Scale: 0-10. Minimum Passing Mark: 5.</p> <p>II. Laboratory Final Exam Marking Scale: 0-10. Minimum Passing Mark: 5.</p> <p>The final Course mark is the average of the marks on Theory and Lab.</p>	

5. BIBLIOGRAPHY

<p>-Proposed Literature:</p> <ul style="list-style-type: none"> • Food Chemistry, Belitz, H.-D., Grosch, W., Schieberle, P., Springer • Food Chemistry, by O. Fennema , CRC Press • Instructor's Manual for Principles of Food Chemistry, John M. deMan Aspen Publishers <p>-Related Scientific Journals:</p> <ul style="list-style-type: none"> • Food Chemistry • Journal of Agricultural and Food Chemistry

- Journal of food composition & analysis
- Journal of the American Oil's Chemist Society