

Pomology [3440]

COURSE OUTLINE

(1) GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
ACADEMIC UNIT	DEPARTMENT OF ANIMAL SCIENCE		
LEVEL OF STUDIES	Undergraduate [Free Elective]		
COURSE CODE	3440	SEMESTER	4th
COURSE TITLE	POMOLOGY		
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 (ECTS)
Theory Lectures		3	
Laboratory		2	
Total		5	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>	Scientific Area		
PREREQUISITE COURSES:	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS:	No		
COURSE WEBSITE (URL):	https://oeclass.aua.gr/eclass/courses/4971/		

(2) LEARNING OUTCOMES

Learning outcomes
<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>
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 aim of the course “Pomology” is to familiarize students at both theoretical and practical levels with the characteristics (morphological and physiological), requirements (soil, climatic, etc) and cultivation practices of the main fruit tree species grown in our country. In particular, the theoretical course aims to analyze the following issues: • Origin, evolution, and classification of fruit tree species • National and international economic importance of fruit tree products • Botanical and morphological traits of fruit trees species • Bearing (fruiting) habit of the main fruit tree species • Anthesis, pollination, fertilization as well as fruit setting, growth, and maturation • Ecological (soil and climatic) requirements of pomological species • Fruit tree dormancy • Fruit tree propagation (sexual and asexual; grafting and rootstocks) • Orchard site selection – Designing and planting an orchard • Pruning and training systems • Irrigation • Orchard mineral nutrition and soil management • Frost protection • Harvesting criteria and quality standards of fruits Emphasis is given to some fruit crops of high pomological importance for Greece, such as olive, citrus, peach, apricot, sweet cherry, apple, pear, pistachio, almond, and walnut.

The goal of the Laboratory classes is to familiarize the students with: • Identification of main fruit trees (pomes, stone fruits, citrus, olive, pomegranate, loquat, fig, etc.) • Fruiting organs and fruit bearing habits of the main fruit trees • Fruit tree propagation (sexual and asexual; grafting, cuttings) • Pruning of olive and citrus trees • Designing an orchard and planting trees Therefore, upon successful completion of the course, the students will: • Be capable of identifying the main fruit trees cultivated in Greece • Be able to understand the ecology, morphology, and physiology of fruit crops cultivated in Greece • Obtain the basic knowledge concerning the cultivation practices applied in fruit trees																			
General Competences																			
<i>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> <table> <tr> <td><i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i></td><td><i>Project planning and management</i></td></tr> <tr> <td><i>Adapting to new situations</i></td><td><i>Respect for difference and multiculturalism</i></td></tr> <tr> <td><i>Decision-making</i></td><td><i>Respect for the natural environment</i></td></tr> <tr> <td><i>Working independently</i></td><td><i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i></td></tr> <tr> <td><i>Team work</i></td><td><i>Criticism and self-criticism</i></td></tr> <tr> <td><i>Working in an international environment</i></td><td><i>Production of free, creative and inductive thinking</i></td></tr> <tr> <td><i>Working in an interdisciplinary environment</i></td><td>.....</td></tr> <tr> <td><i>Production of new research ideas</i></td><td><i>Others...</i></td></tr> <tr> <td></td><td>.....</td></tr> </table>		<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>Production of new research ideas</i>	<i>Others...</i>		
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• Make decisions • Work autonomously • Work in teams • Retrieve, analyze and synthesize data and information, with the use of necessary technologies • Respect natural environment • Advance free, creative and causative thinking • Advance of free thinking and reasoning																			

(3) SYLLABUS

Theory: - Origin, evolution, and classification of fruit tree crops - Economic importance of fruit tree products for Greece and the entire world - Botanical and morphological traits of fruit trees - Bearing (fruiting) habit of the main fruit tree species - Anthesis, pollination, fertilization, and fruit setting, growth, and maturation - Ecological (soil and climatic) requirements of pomological species - Fruit tree dormancy - Fruit tree propagation (sexual and asexual; grafting and rootstocks) - Orchard site selection – Designing and planting an orchard - Pruning and training systems - Irrigation - Orchard mineral nutrition and soil management - Frost protection - Harvesting criteria and quality standards of fruits Laboratory: - Fruiting organs and bearing habit of the main fruit trees cultivated in Greece - Fruit tree propagation (sexual and asexual; grafting, cuttings) - Pruning of olive trees - Pruning of citrus trees - Designing an orchard and planting trees

(4) TEACHING and LEARNING METHODS - EVALUATION

TEACHING METHOD <i>Face-to-face, Distance learning, etc.</i>	Face to face, In class (theory) and in arboretum (laboratory).
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	• Power-Point slides • Open e-class platform • Teaching support through access to on-line websites, databases etc.

Use of ICT in teaching, laboratory education, communication with students	• Communication with students via e-mail	
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 (theory)	39
	Laboratory	26
	Personal or Group project	8
	Autonomous study	52
	Course total (25 h of workload per ECTS)	125
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <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> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	1. Theory - Written final exams including: • Multiple choice questions • Questions with short answers • Open questions 2. Laboratory class - Written final exams including: • Multiple choice questions • Questions with short answers • Open questions	

(5) ATTACHED BIBLIOGRAPHY

Greek: • Γενική και Ειδική Δενδροκομία , 2010. Μ. Βασιλακάκης. • Ειδική Δενδροκομία Τόμος Β (Ακρόδρυα, Πυρηνόκαρπα και Λοιπά Καρποφόρα), 1996. Κ. Ποντίκης. • Ειδική Δενδροκομία (Φυλλοβόλα Οπωροφόρα Δένδρα), 2013. Ι. Θεριός &Κ. • Δημάση – Θεριού. • Ελαιοκομία, 2000. Κ. Ποντίκης • Ειδική Δενδροκομία (Εσπεριδοειδή), 2003. Κ. Ποντίκης • Γενική Δενδροκομία Μέρος Α´ (Πολλαπλασιασμός και Υποκείμενα Οπωροφόρων), 2006. Κ. Δημάση – Θεριού & Ι. Θεριός. • Ελαιοκομία, 2005. Ι. Θεριός • Πολλαπλασιασμός Καρποφόρων Δένδρων και Θάμνων, 1994. Κ. Ποντίκης
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