COURSE OUTLINE

1. GENERAL

SCHOOL	APPLIED ECONOMIC AND SOCIAL SCIENCES		
ACADEMIC UNIT	AGRIBUSINESS AND SUPPLY CHAIN MANAGEMENT		
LEVEL OF STUDIES	*Undergraduate*		
COURSE CODE	**5103**	**SEMESTER**	1st
COURSE TITLE	PLANT BOTANY (SYSTEMATICS - ANATOMY & MORPHOLOGY)		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	5	5

COURSE TYPE	General Background
PREREQUISITE COURSES	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek
IS THE COURSE OFFERED for ERASMUS STUDENTS?	YES (in English)
COURSE WEBSITE (URL)	https://oeclass.aua.gr/eclass/

2. LEARNING OUTCOMES

Learning Outcomes

The aim of the course is:

• To teach students the levels of organization of a plant organism (cell-tissue-organs), with particular emphasis on the main morphological and anatomical characteristics of the most important (in terms of cultivated areas) cultivated plant species (field crops, fruits and vegetables) but also the most important weed species of Greek flora.
• To present the principle methods of classification of plant organisms.

Upon successful completion of the course, the student will be able to:

• Recognize plants of agricultural interest, understand their basic morphological and anatomical features and their basic physiological and developmental functions.
• Become familiar with the diversity of plant organisms and in particular the diversity of flowers, inflorescences, leaves, shoots and roots of angiosperms.
• Understand plant classification terminology.

General Competences

Adapting to new situations

Decision-making

Working independently

Teamwork

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas Teamwork

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional, and ethical responsibility and sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

3. SYLLABUS

1. Introduction and Basic Principles in Botany (object, purposes, methodology).
2. Classification and characteristics of Angiosperms, their evolution and the advantages of their spread.
3. Presentation of the molecular composition of plants.
4. Description and presentation of plant cells.
5. Description of plant tissues.
6. Analysis of the structure, function and morphology of the root of the main cultivated plants and weeds of our country.
7. Analysis of the structure, function and morphology of the shoots of the main cultivated plants and weeds of our country.
8. Analysis of the structure, function and morphology of the leaves of the main cultivated plants and weeds of our country.
9. Description of the morphology of the flowers of the most important cultivated plants and weeds and their role.
10. Description of pollination, fertilization of plants.
11. Description of the fruits of the main cultivated plants and weeds of our country.
12. Description of the structure and analysis of the sperm function of the plants.
13. Description of the photosynthesis, respiration and evaporation of plants.

A combination of teaching and learning methods will be used, aiming at the active participation of the students and the practical application of the thematic units under examination; there will also be lectures using audiovisual media, discussions, and analyses of case studies on real business issues, experiential (group) activities, as well as projections of relevant videos. The students will also undertake an individual or group project. Furthermore, articles, audiovisual lecture materials, web links/addresses, useful information, case studies and exercises for further practice are posted in digital form on the AUA Open e-Class platform.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face -to-face, Distance learning
USE OF INFORMATION and	• Support of the learning process through the

COMMUNICATIONS TECHNOLOGY

University's AUA Open eClass platform (integrated e-Course Management System)
• Support of lectures using presentation software
• Use of audiovisual material
• Use of web applications

Communication with students: face to face at office hours, email, eclass platform

TEACHING METHODS

Activity	*Workload*
Lectures (direct)	65
Writing paper/ papers	28
Independent Study	30
Advisory support	0,5
Exams	***2***
Course Total (Approximately 25 hours of workload per credit unit 125.5)	***125,5 h***

STUDENT PERFORMANCE EVALUATION

The evaluation process is in the language that the course is taught (Greek or English) and consists of:

i. Compulsory written final examination at the end of the semester (weighting factor **70**% at least) which may includes:
- Multiple choice questionnaires
- Open-ended questions
- Problem solving
- Oral examination

Evaluation criteria: correctness, completeness, clarity

ii. Optional written exam or essay during the semester (weighting factor 30%) which may includes:
- Multiple choice questionnaires
- Open-ended questions
- Problem solving
- Essay/report
- Oral examination

Evaluation criteria: correctness, completeness, clarity

Special learning difficulties:

Students with **special learning difficulties** in writing and reading (as they are certified and characterized by a competent body) are examined based on the procedure provided by the Department.

Specifically-Defined Criteria:

	The evaluation criteria are made known during the first lesson and are clearly stated on the course website and the AUA Open e-class platform. The answers to the exam questions are posted on the AUA Open e-Class platform after the exam. The students are allowed to see their exam paper after its grading (during the announced office hours) and receive explanations about the grade they received.

5. ATTACHED BIBLIOGRAPHY

Suggested Bibliography in Greek Language:

- Τσέκος Ι., Ηλίας Η. (2007) Μορφολογία και Ανατομία Φυτών. Εκδοτικός Οίκος Αδελφών Κυριακίδη Α.Ε.
- Simpson, G.S. (2015). Συστηματική των Φυτών. Εκδόσεις Utopia.
- Andreas Bartels (2011). Φυτά της Μεσογείου. ISBN: 9789604574681, σελ. 366.
- Αϊβαλάκης, Γ., Καραμπουρνιώτης Γ., Φασσέας Κ. (2005). Γενική Βοτανική. Εκδόσεις Εμβρυο
- Μπαμπαλώνας Δ., Κοκκίνη Σ. (2004). Συστηματική Βοτανική: φυλογενετική – φαινετική προσέγγιση της ταξινόμησης των φυτικών οργανισμών. Εκδόσεις Αϊβάζη. Θεσσαλονίκη, σελ. 421.
- Σαρλής, Γ.Π. (1999). Συστηματική Βοτανική. Εκδόσεις Σταμούλη

Suggested Bibliography in English Language:

- Datta, S. C. (1988). Systematic botany. New Age International.

Related academic Journals:

- Annals of applied biology
- Annals of Botany
- Journal of Experimental Botany
- Journal of Plant Physiology
- Plant Science

Instructor's Notes