

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Environment		
ACADEMIC UNIT	Department of Environment		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	103Y	SEMESTER	4
COURSE TITLE	Plant Biology		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
Lectures		2	3
Laboratory exercises		4	3
Total credits			6
COURSE TYPE		General background	
PREREQUISITE COURSES:		-	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:		Greek	
IS THE COURSE OFFERED TO ERASMUS STUDENTS		No	
COURSE WEBSITE (URL)		http://www.env.aegean.gr/studies/undergraduate-degree/curriculum/plant-biology/	

(2) LEARNING OUTCOMES

Learning outcomes
Students will be able to: (A) describe the basic organs and tissues of a plant organism (B) recognize the role of each organ and tissue in plant function (C) adequately handle laboratory methods for identifying tissues, organs, cells and organelles of a plant (D) compose plant morphology and physiology data to draw conclusions about adaptations of organisms in a variety of environments
General Competences
Search for, analysis and synthesis of data and information, with the use of the necessary technology Working independently Team work Respect for the natural environment Criticism and self-criticism

(3) SYLLABUS

Lectures

1. Introduction – Plants: what are they?
2. Introduction to plant cells
3. Plant tissues (2 lectures)
4. Roots
5. Stems
6. Leaves – photosynthesis pathways
7. Flowers, Fruits and Seeds
8. Plant biology and microorganisms
9. Threats to Mediterranean plants
10. Acclimation and adaptation to environmental stresses
11. Transpiration - Water Movement through Plants
12. Plant nutrition

Laboratory exercises:

1. Plant cells
2. Plant tissues I
3. Plant tissues II
4. Roots (anatomy)
5. Stems (anatomy)
6. Leaves (anatomy)
7. Flowers (anatomy)
8. Bacteria, fungi, virus

Field trips

1. Phrygane (shrubland) ecosystem
2. Forest ecosystem

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Use of Moodle (Modular Object Oriented Developmental Learning Environment) platform	
TEACHING METHODS	Activity	Semester workload
	Lectures	22
	Lab practice	32
	Field trips	12
	Study	62
	Essay writing	30
	Exams	10
	Course total	168
STUDENT PERFORMANCE EVALUATION	Language of evaluation: Greek methods of evaluation open-ended questions: 30% short-answer questions: 40% essay: 20% field trip report: 10%	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Raven P., Evert RF, Eichhorn SE. 2014. Βιολογία των Φυτών. Εκδόσεις Utopia, Αθήνα.
- Αϊβαλάκης Γ., Καραμπουρνιώτης, Κ., Φασσεάς, Κ. 2005. Γενική Βοτανική. Η μορφολογία, η ανατομία και φυσιολογία των ανώτερων φυτών. Εκδόσεις Έμβρυο, Αθήνα
- Μανέτας Γ. 2010. Τι θα έβλεπε η Αλίκη στην χώρα των φυτών. Πανεπιστημιακές Εκδόσεις Κρήτης.

- Related academic journals:

Functional Plant Biology, Annals of Botany, Journal of Experimental Botany, Plant Ecology, Journal of Plant Ecology, Journal of Vegetation Science