

COURSE OUTLINE

(1) GENERAL

SCHOOL	NATURAL SCIENCES		
ACADEMIC UNIT	BIOLOGY		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	BIO_ΔY05	SEMESTER	4
COURSE TITLE	PLANT BIOLOGY II		
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
Theory		39	6
Lab exercises		39	
Field work		16	
<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>			
PREREQUISITE COURSES:	No prerequisite courses. Good knowledge of Plant Biology I is needed.		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/BIO361/		

(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*

At the end of this course the student should be able to:

- understand the importance of the Plant Biology in the science of biology
- understand the basic principles of classification and phylogeny of plants.
- be able to distinguish the basic morphological differences between plants.
- understand the ways of reproduction and their development within the various groups.
- understand the role of plant organisms in the environment
- understand the position of plant species within communities and ecosystems
- understanding the importance of preserving populations of rare, protected and risk-bearing plant species
- have developed critical thinking.

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

Working independently

Team work

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas

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

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Others...

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At the end of the course the student should be able to:

- to seek, analyze and compile data and information on important plant species collections, their characteristics and functional traits, protection and risk status, etc., from international and national databases, using and the necessary technologies
- recognize plant organisms using a stereoscope and identification keys

(3) SYLLABUS

Systematic Classification of Plants

Evolution & Diversity of Green and Terrestrial Plants: Lichens-Bryophyta

Evolution & Variety of vascular plants: Pteridophyta

Evolution & variety of woody plants and spermatophytes

Gymnosperm: Pinaceae, Taxaceae

Gymnosperm: Cupressaceae, Ephedraceae

The evolution of angiosperms (flowers, fruits, inflorescences, taxa)

Diversity & Classification of Angiosperms: Salicaceae, Platanaceae, Oleaceae, Lauraceae, Fagaceae

Diversity & Classification of Angiosperms: Fabaceae, Lamiaceae, Ranunculaceae, Caryophyllaceae

Diversity & Classification of Angiosperms: Brassicaceae, Papaveraceae, Apiaceae, Asteraceae

Diversity & Classification of Angiosperms: Poaceae, Liliaceae, Orchidaceae

Plants in Communities, ecosystems and their dynamics

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Lesson <i>face-to-face</i>	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of ICT i) in teaching, ii) laboratory education, iii) communication with students	
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	39
	Laboratory practice	39
	Fieldwork	16
	Essay writing	10
	Exam preparation	46
	Course total	150
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>	Short Response Questions Laboratory practice and essay writing	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1. Simpson G. M 2016. Plant Systematics. Academic Press.
1. Mauseth JD. 1995. Botany: An Introduction to Plant Biology 2nd edition. Jones & Bartlett Publishers.
2. Moore R, Clark WD & Stern KR 1995. Botany. Toronto Wm. C. Brown publishers.
3. Raven PH, Evert RF & Eichhorn SE 1999. Biology of plants. 6th edition. W.H. Freeman and Company/Worth Publishers.

E-lessons of Plant Biology II: ([BIO361](#), [eclass.upatras.gr](#), <https://eclass.upatras.gr/courses/BIO361/>)

- Related academic journals: