DEREE COLLEGE SYLLABUS FOR: ES 4126 CONSERVATION OF WILDLIFE AND MEDITERRANEAN ECOSYSTEMS	3/0/3

PREREQUISITES:	ES 1000 Environmental Science: Ecosystems and Biodiversity
CATALOG DESCRIPTION:	An analysis of terrestrial, aquatic and marine Mediterranean ecosystems and wildlife with emphasis on endangered and protected species, conservation and management techniques.
RATIONALE:	*Conservation of Wildlife and Mediterranean Ecosystems* integrates an analysis of the structure and function of Mediterranean terrestrial, aquatic and marine ecosystems of Greece, flora and fauna, endangered and protected species as well as wildlife and ecosystem conservation and management principles. The course is providing essential knowledge for whoever would be engaged professionally in the area of the Mediterranean, in environment-related issues.
LEARNING OUTCOMES:	*As a result of taking this course, the student should be able to:* 1. Demonstrate knowledge of biodiversity and conservation issues. Demonstrate knowledge of characteristics of terrestrial and aquatic Mediterranean ecosystems, of major threats facing these systems and of protection and conservation measures 2. Critically evaluate strategies used at local and global level to address issues of biodiversity and conservation. 3. Assess a Mediterranean biodiversity issue, appraise adopted methods and processes, and propose relevant solutions, finally, planning and composing a project report. 4. Demonstrate ability to communicate research findings effectively in several forms (e.g. written, graphical and verbal), and defend them in a professional manner.
METHOD OF TEACHING AND LEARNING:	In congruence with the teaching and learning strategy of the college, the following tools are used: • Lectures and class discussions. • Homework assignments. • Office hours held by the instructor to provide further assistance to students. • Use of library facilities for further study and preparation for the exams • Use of the Blackboard course management platform to further support communication, by posting lecture notes, assignment instruction, timely announcements, formative quizzes and online submission of assignments.
ASSESSMENT:	Summative:

1st assessment: In-class paper on selected topics (2 hrs)	40%
Final assessment: In-class Portfolio. **Summative**: 3 components from selected items, tested in class: Journal Analysis; Case Study Analysis; Flipped class; Exam paper (multiple choice & essay questions)	60%

Formative:

Critical Essays	**0**

The formative tests aim to prepare students for the examinations.
The in-class paper tests Learning Outcomes 3, and 4.
The exam portfolio tests Learning Outcomes 1, 2 and 4 .

INDICATIVE READING:	**REQUIRED READING:** • Navjot S. S., Ehrlich P. R. 2011. *Conservation Biology for All*, Oxford University Press (available online) • Pullin A.S. 2014. *Conservation Biology*, Cambridge University Press, 10th edition **RECOMMENDED READING:** • Blondel, J., Aronson, J., Bodias, J-Y and Boeuf, G., 2010, *The Mediterranean region: Biological Diversity in Space & Time* 2nd Edition • Dallman, P. R., 1998. *Plant Life in the World's Mediterranean Climates*. CNPS & University of California Press. • Davis G. W. and Richardson D. M. 2011. *Mediterranean Type Ecosystems: The function of Biodiversity*, Springer-Verlag • Di Castri, F., Goodall, D.W. and Specht, R. L. 1981, *Ecosystems of the World. Mediterranean-type Shrublands*. Elsevier Scientific Publishing Company • Gerakis, P.A. (Ed.) 1992. *Conservation and Management of Greek wetlands*. IUCN Wetlands Programme Proceedings of a workshop on Greek wetlands, Thessaloniki, Greece. • Hellenic Zoological Society. 2009. *The Red Book of Endangered Animals in Greece* • Hiscock, K. 2014. *Marine Biodiversity Conservation: A practical approach* Routledge Publishing • Hunter, M.L. 2002. *Fundamentals of Conservation Biology* Blackwell Science, 2nd edition. • Sutherland, W. J. 2000. *The Conservation Handbook: Research, Management and Policy* Blackwell Science • Selected articles from scientific journals and the internet.
INDICATIVE MATERIAL: *(e.g. audiovisual, digital material, etc.)*	**REQUIRED MATERIAL:** **N/A** **RECOMMENDED MATERIAL:**
COMMUNICATION REQUIREMENTS:	Verbal skills using academic/professional English
SOFTWARE REQUIREMENTS:	MS Office and Blackboard CMS Enter any additional s/w requirements.
WWW RESOURCES:	• World Wildlife Fund Conservation Science: http://www.worldwildlife.org/science/ecoregions/item1847.html • International Union for Conservation of Nature: http://www.iucn.org/ • International Union for Conservation of Nature – Red List of species: http://www.iucnredlist.org/ • Endangered Animals: http://www.animalinfo.org/ • European Environment Agency on Biodiversity: http://www.eea.europa.eu/themes/biodiversity • Convention on Biological Diversity: http://www.cbd.int/ • International Union for the Conservation of Nature: www.iucn.org • International Institute for Sustainable Development: www.iisd.org • U.S. Environmental Protection Agency: http://www.epa.gov/: • European Environment Agency: http://www.eea.europa.eu/: • Barcelona Convention: https://ec.europa.eu/environment/marine/internationalcooperation/regional-sea-conventions/barcelonaconvention/index_en.htm • United Nations Environmental Program Mediterranean Action Plan (UNEPMAP): https://www.unep.org/unepmap/ • COPERNICUS - Emergency Management Service: https://emergency.copernicus.eu/mapping/list-of-activations-rapid • Ramsar convention: https://www.ramsar.org/ • Natura 2000: https://natura2000.eea.europa.eu/

	• UNESCO Global Geoparks (UGGp): https://en.unesco.org/globalgeoparks

INDICATIVE CONTENT:	1.Introduction into Conservation Biology:
	    a. Conservation Biology past and present
	    b. Conservation values and Ethics
	2. Ecosystems and Biodiversity
	    a. Taxonomy and Biodiversity
	    b. Ecosystem Services
	3. Threats to Biodiversity: Causes and Impacts in the Mediterranean
	    a. Habitat Disturbance
	    b. Invasive species (terrestrial and aquatic
	    c. Pollution – Bioaccumulation
	    d. Climate Change impacts in ecosystems and species
	    e. Overexploitation
	4. Terrestrial Mediterranean Ecosystems
	    a. Overview of ecosystems and species
	    b. Threats and protection
	5. Aquatic Mediterranean Ecosystems
	    a. Overview of ecosystems and species
	    b. Overfishing
	6. Protected and Endangered Species in Greece and the Mediterranean
	    a. Outline of endangered species
	    b. Ex-situ conservation
	    c. In-situ conservation
	7. Protected Areas in the Mediterranean
	    a. Natura 2000
	    b. National Parks
	    c. Geoparks
	    d. Ramsar sites
	    e. Marine protected areas
	8. Conservation Management
	    a. Planning for conservation management
	    b. Design of protected areas
	    c. Ecological Restoration
	    d. Examples from the Mediterranean