

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF SCIENCES		
ACADEMIC UNIT	DEPARTMENT OF MATHEMATICS		
LEVEL OF STUDIES	UNDERGRADUATE PROGRAM		
COURSE CODE		SEMESTER	H
COURSE TITLE	GENERAL TOPOLOGY		
INSTRUCTOR	Kyriakos Keremedis		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
		4	6
COURSE TYPE	Special background		
PREREQUISITE COURSES:	NO		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	http://www.math.aegean.gr/index.php/en/academics/undergraduate-programs		

(2) LEARNING OUTCOMES

Learning outcomes
The main goal of this course is to introduce the students to the basic notions of general topology such as open and closed sets; topology; base for a topology; limit point; closure, interior and boundary of a set; dense set; subspaces; products; filters; convergence; continuity; separation axioms; metrization.
General Competences
Working independently. Team work. Working in an interdisciplinary environment.

(3) SYLLABUS

<ol style="list-style-type: none"> 1. Topological spaces. 2. Bases and subbases for a topology. 3. The order topology. 4. The product of two topological spaces. 5. The subspace topology. 6. Closed sets and limit points of sets. 7. Interior and boundary of a set. 8. Continuity of functions. 9. The product topology. 10. Compactness. 11. The separation axioms. 12. Uryshon's Lemma and Tietze's extension theorem. 13. Countability axioms. 14. Uryshon's Metrization Theorem.
TEACHING MATERIAL The teaching material of the course is uniformly distributed during the

DISTRIBUTION	semester.
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Communication with students via e-mail	
TEACHING METHODS	Activity	Semester workload
	Lectures	52
	Independent study	98
	Course total (25 per ECTS)	150
COURSE COMMITMENTS	Attending course is not obligatory.	
STUDENT PERFORMANCE EVALUATION	Student's evaluation is done in Greek through a written examination which includes short-answers questions and problem solving. For students with disabilities, evaluation takes place via oral exam.	

(5) ATTACHED BIBLIOGRAPHY

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| <ol style="list-style-type: none"> 1. J. R. Munkres, Topology, Prentice-Hall, New Jersey, 1975. 2. S. Willard, General Topology, Addison-Wesley Publishing Company, 1970. |
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