

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF SCIENCES		
ACADEMIC UNIT	DEPARTMENT OF MATHEMATICS		
LEVEL OF STUDIES	POSTGRADUATE Studies in Mathematics		
COURSE CODE	A8	SEMESTER	B
COURSE TITLE	TOPOLOGY		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
		3	10
COURSE TYPE	SPECIALISED GENERAL KNOWLEDGE		
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

(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.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Communication with students via e-mail	
TEACHING METHODS	<i>Activity</i>	<i>Semester workload</i>
	Lectures	39
	Independent study	148.5
	Assignments	62.5
	Course total (25 per ECTS)	250
STUDENT PERFORMANCE EVALUATION	<p>Student evaluation is done in Greek through a written examination which includes short-answer equations and problem solving.</p> <p>For students with disabilities, evaluation takes place via oral exams.</p>	

(5) ATTACHED BIBLIOGRAPHY

1. J. R. Munkres, Topology, Prentice-Hall, New Jersey, 1975.
2. S. Willard, General Topology, Addison-Wesley Publishing Company, 1970.