

## COURSE OUTLINE

### (1) GENERAL

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

### (2) LEARNING OUTCOMES

<b>Learning outcomes</b>
Quotient groups, Isomorphism Theorems, Free groups, Presentations of groups, Free products.
<b>General Competences</b>
Working independently. Team work. Working in an interdisciplinary environment.

### (3) SYLLABUS

Groups, normal subgroups, isomorphism theorems, abelian groups, Classification of finite abelian groups, Jordan-Hölder Theorem, Sylow Theorems, Free groups, Nilpotent groups, Solvable groups, Elementary Theory of group extensions.	
<b>TEACHING MATERIAL DISTRIBUTION</b>	The teaching material of the course is uniformly distributed during the semester.

### (4) TEACHING and LEARNING METHODS - EVALUATION

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

## (5) ATTACHED BIBLIOGRAPHY

1. Ομάδες και Συμμετρία, Armstrong Mark Antony.
2. Εισαγωγή στην Άλγεβρα, Ανδραδάκης Σ.