AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Group Theory II							
Course Code		MTK608		Couse Level		Third Cycle (Doctorate Degree)			
ECTS Credit	7.5	Workload	189 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		Students to new developments in group theory. Some work with specific groups							
Course Content		Finite Groups, Solvable, nilpotent, commutative groups, Locally finite groups							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	25
Final Examination	1	60
Assignment	2	15

Recommended or Required Reading	
1	A course in the theoey of the groups, Derek R. J. Robinson
2	Group Theory I-II, Michio Suzuki

Week	Weekly Detailed Course Contents	
1	Theoretical	Locally finite groups
2	Theoretical	Maximal and minimal condition on subgroups
3	Theoretical	Cernikov groups and automorphisms of Cernikov groups
4	Theoretical	Direct limit of groups
5	Theoretical	Inverse limit of groups
6	Theoretical	Linear groups
7	Theoretical	Classical Finite Groups
8	Intermediate Exam	Midterm
9	Theoretical	Hall Universal Groups
10	Theoretical	Locally Simple Groups
11	Theoretical	Finite Simple Groups
12	Theoretical	Groups Of Lie Type
13	Theoretical	Centralizers of elements in simple locally finite groups
14	Theoretical	Centralizers of elements in simple locally finite groups
15	Theoretical	Centralizers of elements in simple locally finite groups

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	3	84
Assignment	2	10	0	20
Midterm Examination	1	33	2	35
Final Examination	1	48	2	50
			Total Workload (Hours)	189
			[Total Workload (Hours) / 25*] = **ECTS**	7.5

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes	
1	Think in abstract terms
2	Construct the new group from the old group

3	Construct locally infinite group from finite group
4	Classify the groups
5	To be able to gain the skill of interpreting some interrelations among these concepts

Programme Outcomes *(Mathematics Doctorate)*	
1	To be able to develop the current and advanced knowledge of mathematics domain to expertise level by an original idea or research, based on the level of its knowledge at the graduate level, and to be able to reach original definitions that will bring innovation to Mathematics.
2	To be able to comprehend the interdisciplinary interaction associated with Mathematics.
3	To be able to use and evaluate the new knowledge in the field of Mathematics with a systematic approach.
4	To be able to develop an idea, a method, a design or an application that will bring innovation to Mathematics, to use well known ideas, methods, designs or applications on a different research area, or to search, comprehend, design, adapt and apply an original subject matter.
5	To be able to criticize, analyze, synthesize and evaluate new and complex ideas.
6	To be able have high-level skills in research methods related to studies on Mathematics.
7	To be able to expand the frontiers knowledge in the field of Mathematics via generating or interpreting an original study, or publishing at least a scientific paper in national/international refereed journals.
8	To be capable of leadership in the positions that require the analyses of problems related to the field of Mathematics.
9	To be able to defend his/her original ideas among the experts in the discussion of math related issues, and to be able to communicate effectively to show his/her competence in the field of Mathematics.
10	To be able to contribute to the solution of the social, scientific, cultural and ethical problems related to the Mathematics, and to be able to support the development of social, scientific, cultural and ethical values.
11	To be able to have both oral and written communication using a foreign language.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	3	4	3	4	4
P2	3	4	3	4	4
P3	4	4	4	4	4
P4	3	4	3	4	4
P5	4	4	4	4	4
P6	4	4	4	4	
P7	2	3	2	3	
P8	4	4	4	4	
P9	3	3	3	3	
P10	2	3	2	3	
P11	4	4	4	4	