

# ABSTRACT ALGEBRA I

1	Course Title:	ABSTRACT ALGEBRA I	
2	Course Code:	MAT6201	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. İSMAİL NACİ CANGÜL	
15	Course Lecturers:	Prof. Dr. Süleyman ÇİFTÇİ, Doç. Dr. Ahmet TEKCAN, Yrd. Doç. Dr. Musa DEMİRCİ, Yrd. Doç. Dr. Hacer ÖZDEN	
16	Contact information of the Course Coordinator:	cangul@uludag.edu.tr, 0 224 2941756, Fen-Edebiyat Fakültesi, Matematik Bölümü, Görükle / Bursa	
17	Website:		
18	Objective of the Course:	The aim of this course is to teach former algebraic notions intensively and in detail and to make them differentiate between results on different algebraic structures	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Can list the transformations between algebraic structures and their properties
		2	Knows the advanced notions on algebraic structures
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21	Course Content:		
		<b>Course Content:</b>	
Week	Theoretical	Practice	
1	Algebraic transformations		
2	Properties of algebraic transformations		
3	Isomorphism theorems		
4	p-groups		

5	Structure of p-groups	
6	Sylow theorems	
7	Group representations	
8	Rings and domains	
9	Ring mappings	
10	Subrings and subfields	
11	Ideals	
12	Quotient rings	
13	Characteristic	
14	Group action on a set	

22	Textbooks, References and/or Other Materials:	1. Lecture Notes, İsmail Naci Cangül 2. Elementary Number Theory, Gareth Jones & Mary Jones, Springer 3. A First Course in Abstract Algebra, John B. Fraleigh, 4. A First Course in Abstract Algebra, Joseph J. Rotman
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23	Assesment	
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TERM LEARNING ACTIVITIES		NUMBER	WEIGHT		
Midterm Exam		0	0.00		
Activites			Number	Duration (hour)	Total Work Load (hour)
Final Exam		1	70.00	3.00	42.00
Practicals/Labs		0	0.00	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade		30.00	6.00	84.00	
Homeworks		3	12.00	36.00	
Contribution of Final Exam to Success Grade		70.00	0.00	0.00	
Field Studies		0	0.00	0.00	
Measurement and Evaluation Techniques Used in the Course		0	0.00	0.00	
Others		0	0.00	0.00	
Final Exams		1	33.00	33.00	
Total Work Load				195.00	
Total work load/ 30 hr				6.50	
ECTS Credit of the Course				5.00	

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	3	3	0	2	5	4	0	3	0	0	0	0	0	0	0
ÖK2	0	3	3	0	2	5	4	0	3	0	0	0	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			