ALGEBRA II

1	Course Title:	ALGEBRA II
2	Course Code:	MAT5206
3	Type of Course:	Optional
4	Level of Course:	Second Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	6.00
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, 0224 2941756, Fen-Edebiyat Fakültesi, Matematik Bölümü
17	Website:	
18	Objective of the Course:	The aim of the course is to extend the algebraic notions learned at undergraduate level and give advanced algebra topics.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

		1	Can define algebraic structures.
		2	Can give examples of algebraic structures.
		3	Can give examples of different situations on different algebraic structures.
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21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	Review of groups	
2	Review of rings, domains and fields	
3	Fundamental notions of Galois theory	
4	Roots of unity and Galois extensions	
5	Galois groups of quadratic, cubic and quartics	
6	Roots, radicals and real numbers	

7	Domains and fields	
8	Structure of finite fields	
9	Classification of finite fields	
10	Solvability of equations with radicals	
11	Norm and trace	
12	Simple extensions	
13	Seperable extensions	
14	Cyclotomic extensions	

22	Textbooks, References and/or Other Materials:	Algebra : A Graduate Course, I. Martin Isaacs, Algebra, Michael Artin
23	Assesment	

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	3	30.00
Final Exam	1	70.00
Total	4	100.00

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	8.00	112.00
Homeworks	3	16.00	48.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	30.00	30.00
Total Work Load			232.00
Total work load/ 30 hr			7.73
ECTS Credit of the Course			6.00

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	4	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	2	0	0	3	0	0	3	3	0	0	0	0	0	0	0	0
ÖK3	0	4	0	3	5	0	0	4	0	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

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High