GALOIS THEORY										
1	Course Title:	GALOIS	THEORY							
2	Course Code:	MAT406	1							
3	Type of Course:	Optional								
4	Level of Course:	First Cyc	cle							
5	Year of Study:	4								
6	Semester:	7								
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:	Yrd. Doç. Dr. Musa DEMİRCİ Yrd. Doç. Dr. Hacer ÖZDEN								
16	Contact information of the Course Coordinator:	cangul@uludag.edu.tr, 0 224 2941657, Fen-Edebiyat Fakültesi Matematik Bölümü								
17	Website:									
18	Objective of the Course:	The aim of this course is to give students some basic concepts of Galois Theory, to teach the techniques related to the solutions of polynomial equations.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	to be able to solve the 2nd, 3rd and 4th order polynomial equations							
		2	to be able to state the fundamental theorem of Galois theory							
		3	to be able to state the relations between groups, rings and polynomials							
		4	to be able to classify domains, fields, subrings, subfields and ideals and give examples of those							
		5	to let the students know the differences between rings, fields and domains							
		6								
		7								
		8								
		9								
04	Course Content:	10								
21										
Mook	Theoretical	C	Practice							
1	Rings		Taolice							
2	Integral Domains and Fields									
	Integral Domains and Fields									

3	Homomorphism and Ideals						
	·						
4	Quotient rings						
5	Polinomial rings						
6	Prime and maximal ideals						
7	Irreducible polinomials						
8	The general solution methods fort the and fourth order equations	third					
9	Field extensions and finite fields						
10	Midterm exam and general review						
11	Galois group						
12	The roots of the unit and fields extens	sions					
13	The fundamental theorem Galois The	eory					
14	Quadratic, cubic and quartic Galois g	roups					
22	Textbooks, References and/or Other Materials:		J. ROTMAN, Galois Theory, Springer, 1998; İ. N. CANGÜL, Galois Theory Lecture Notes				
23	Assesment						
TERM L	EARNING ACTIVITIES	NUMBE R	WEIGHT				
Midtern	m Exam	1	40.00				
Quiz		0	0.00				
Home v	work-project	0	0.00				
Final Exam 1		1	60.00				
Total		2	100.00				
Contribution of Term (Year) Learning Activities to Success Grade			40.00				
Contribution of Final Exam to Success Grade			60.00				
Total			100.00				
Measurement and Evaluation Techniques Used in the Course							
24	ECTS / WORK LOAD TABLE						

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	4.00	56.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	20.00	20.00
Others	0	0.00	0.00
Final Exams	1	30.00	30.00
Total Work Load			148.00
Total work load/ 30 hr			4.93
ECTS Credit of the Course			5.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	2	4	0	0	4	0	0	5	0	0	0	0	0	0	0	0
ÖK3	0	4	0	0	5	0	0	5	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib 1 very low 2 lution Level:		2 low		3 Medium			4 High				5 Very High					