ALGEBRAIC NUMBER THEORY I									
1	Course Title:	ALGEBF	RAIC NUMBER THEORY I						
2	Course Code:	MAT5207							
3	Type of Course:	Optional							
4	Level of Course:	Second Cycle							
5	Year of Study:	1							
6	Semester:	1							
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. Osman BİZİM							
16	Contact information of the Course Coordinator:	Uludağ Üniversitesi, Fen-Edebiyat Fakültesi Matematik Bölümü, Görükle Bursa-TÜRKİYE 0 224 294 17 57 / obizim@uludag.edu.tr							
17	Website:								
18	Objective of the Course:	The aim of this lecture is to illustrate how basic notions from the theory of algebraic numbers may be used to solve problems in number theory. The main focus is to extend properties of the integer numbers to more general number structures: algebraic number fields and their rings of algebraic integers. So students can So students have the ability conduct original research and independent publication.							
19	Contribution of the Course to Professional Development:								
20	Learning Outcomes:								
		1	Learns the concepts, integral domains, irreducibles and primes in an integral domain.						
		2	Learns Euclidean domains, examples of Euclidean domains, Noetherian domains, çarpanlara ayırma bölgeleri, unique factorization domains.						
		3	Learns algebraic extensions of a field, conjugate elements, algebraic integers in a quadratic field, simple extensions.						
		4	Learns algebraic number fields, conjugate fields of an algebraic number field, prime ideals in rings of integers.						
			Learns class groups and and some class number calculations.						
		6	Learns ideal class group and Minkowski theorem.						
		7	Uses algebraic number theory to solve some Diophantine equations.						
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21	Course Content:								
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24 ECTS / WORK LOAD TABLE			sed in the							
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
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ÖK7	5	5	5	5	5	5	5	5	5	5	0	0	0	0	0	0
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