



Kırıkkale University

GRADUATE SCHOOL OF NATURAL APPLIED SCIENCES
Mathematics (Master) (With Thesis)

MAT8002 Algebra-2					
Semester	Course Unit Code	Course Unit Title	L+P	Credit	Number of ECTS Credits
2	MAT8002	Algebra-2	3	3	7

Mode of Delivery:

Face to Face

Language of Instruction:

Türkisch

Level of Course Unit:

Master's Degree

Work Placement(s):

No

Department / Program:

Mathematics (Master) (With Thesis)

Type of Course Unit:

Elective

Objectives of the Course:

To introduce subject of base abstract algebra

Teaching Methods and Techniques:

Algebraic structures, Rings

Prerequisites and co-requisites:

None

Course Coordinator:

None

Name of Lecturers:

Associate Prof.Dr. İlker Akkuş

Assistants:

None

Recommended or Required Reading**Resources**

L. J. Goldstein, Abstract Algebra, Prentice-Hall, 1973.

Fethi Çallıalp, Örneklerle Soyut Cebir, Birsen yayınları, 2001, İstanbul.

Course Category

Mathematics and Basic Sciences : 100
 Engineering :
 Engineering Design :
 Social Sciences :

Education :
 Science :
 Health :
 Field :

Weekly Detailed Course Contents

Week	Topics	Study Materials	Materials
1	Basic concepts		
2	Rings		
3	Subring		
4	Ideals		
5	Quotient rings		
6	Homomorphisms		
7	Quotient field		
8	Midterm Exam		
9	Polynomial rings		
10	Arithmetic in rings		
11	Euclidean domain		
12	Unique factorization domains		
13	Prime and maximal ideals		
14	Proper, Local and noetherian rings		
15	Finite fields, Finite rings		

Course Learning Outcomes

No	Learning Outcomes
C01	Describes basic algebraic structures, develops ability to solve algebraic problems.

Program Learning Outcomes

No	Learning Outcome
P03	Define a problem and propose a solution for it, and to solve the problem, evaluate the results and apply them if it is necessary in his/her areas of expertise.
P08	Produce solution and to take responsibility and to develop new strategic approaches in situations which are not predicted in his/her areas of expertise.
P04	Transfer systematically the current developments, his/her studies to other people as verbal or written form confidently.
P09	Follow scientific, social, and ethical values and to teach and to control them in the step of data collection, evaluation and announcement of them.
P05	Develop new strategic approach and produce solutions by taking responsibility in unexpected and complicated situations in his/her area of practice.
P01	Evaluate the fundamental notions, theories and data with academic methods. Determining and analyzing the encountered problems and subjects, exchanging of ideas, improving suggestions prop
P10	Apply the digested knowledge and problem solving ability in the collaborations between different groups.
P02	Expand knowledge by scientific methods and use them with scientific, social and ethical responsibility.
P07	Have oral or written communication ability in one of the common foreign languages ("European Language Portfolio Global Scale", Level B2).
P06	Develop strategic, political and practice plans and evaluate the results by considering the quality process in his/her area of expertise.

Assessment Methods and Criteria		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
Total		%100

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	16	3	48
Hours for off-the-c.r.stud	16	3	48
Assignments	3	15	45
Presentation	1	20	20
Mid-terms	1	20	20
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	30	30
Total Work Load			211
ECTS Credit of the Course			7

Contribution of Learning Outcomes to Programme Outcomes											
bbb											
	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	

All	5	5	4	3	3	4	4	3	4	3	
C01	5	5	4	3	3	4	4	3	4	3	

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