Course Description Form

1. Course Name: Topics in Pure Mathematics
2. Course Code: MATH461
3. Semester / Year: second/fourth
4. Description Preparation Date:2024/3/13
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total):60hours/4
7. Course administrator's name (mention all, if more than one name) Name: Dr. Ahlam J. Khaleel Email: ahlam.jamial@nahrainuniv.edu.iq

8. Course Objectives

Course Objectives	1-Enable students to obtain knowledge and understanding some of the basic principles of Fields. 2-Empowering and raising the students skills to obtain knowledge and understanding of the Algebra

9. Teaching and Learning Strategies

Strategy	• Introductory written lectures and various activities and assignments which are given in the classroom. • Answering the quick questions raised in the hall and the possibility of solving them by the student. • Adopting the principle of preparing reports by students.

10. Course Structure

Week	Hours	Required Learning	Unit or	Learning method	Evaluation

		Outcomes	subject name		method
1	4	Definition of the Fields, some examples of Fields	Field Theory	Attendance interactive lectures	Ask questions and give assignments
2	4	Some Properties and Theorems of Fields	Field Theory	Attendance interactive lectures	Ask questions and give assignments
3	4	Some Properties and Theorems of Fields	Field Theory	Attendance interactive lectures	Ask questions and give assignments
4	4	Subfields and Prime Fields	Field Theory	Attendance interactive lectures	Ask questions and give assignments
5	4	Maximal Ideals with Some Examples	Certain Special Ideals	Attendance interactive lectures	Ask questions, give assignments, and make a 1st attence mid exam
6	4	Some Properties of Maximal Ideals	Certain Special Ideals	Attendance interactive lectures	Ask questions and give assignments
7	4	Some Theorems of Maximal Ideals	Certain Special Ideals	Attendance interactive lectures	Ask questions and give assignments
8	4	Prime Ideals	Certain Special Ideals	Attendance interactive lectures	Ask questions and give assignments
9	4	Some examples and Theorems of Prime Ideals	Certain Special Ideals	Attendance interactive lectures	Ask questions and give assignments
10	4	Some Theorems of Prime Ideals	Certain Special Ideals	Attendance interactive lectures	Ask questions and give assignments
11	4	The Radical of A ring, Semisimple Ring	Certain Special Ideals	Attendance interactive lectures	Ask questions and give assignments
12	4	Some Theorems of Radical	Certain Special Ideals	Attendance interact lectures	Ask questions, give assignments, and make a 2nd attence mid exam
13	4	Definition of Polynomial ring With some Examples	Polynomial Ring	Attendance interactive lectures	Ask questions and give assignments
14	4	Some Theorems of Polynomial Ring	Polynomial Ring	Attendance interactive lectures	Ask questions and give assignments
15	4	Some Theorems of Polynomial Ring	Polynomial Ring	Attendance interactive lectures	Ask questions and give assignments

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	A first Course in Abstract Algebra by J. B. Fraleigh

Main references (sources)	Introduction to to Modern Abstract Algebra by Burton
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	