Course Description Form

1. Course Name:

Mathematical Analysis 1

2. Course Code:

3. Semester / Year:

Second semester 2024-2025

4. Description Preparation Date:

9/10/2024

5. Available Attendance Forms:

Traditional attendance

6. Number of Credit Hours (Total) / Number of Units (Total)

45/3

7. Course administrator's name (mention all, if more than one name)

Name: Rifaat Saad Abduljabbar
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8. Course Objectives

Course Objectives	• **Introducing the student to mathematical conce related to mathematical analysis.** • **Training the student to deal with abstr mathematical concepts.**

9. Teaching and Learning Strategies

Strategy	Traditional and e-lectures

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3		Real Numbers R a Extended Real Numb R*	Presenting lecture	Daily a monthly tests
2	3		Euclidian space Countable a uncountable sets.	Presenting lecture	Daily a monthly tests
3	3		Metric S paces	Presenting lecture	Daily a monthly tests

4	3		Compactness	Presenting lecture	Daily a monthly tests
5	3		Connectedness.	Presenting lecture	Daily a monthly tests
6	3		Perfect sets	Presenting lecture	Daily a monthly tests
7	3		Convergence a divergence in Met Space	Presenting lecture	Daily a monthly tests
8	3		Cauchy sequence	Presenting lecture	Daily a monthly tests
9	3		Absolute a conditional converge .	Presenting lecture	Daily a monthly tests
10	3		Product of series	Presenting lecture	Daily a monthly tests
11	3		Compactness a connectedness .	Presenting lecture	Daily a monthly tests
12	3		Continuity and unifo continuity	Presenting lecture	Daily a monthly tests
13	3		Intermediate va theorem	Presenting lecture	Daily a monthly tests
14	3		Sequence and series functions .	Presenting lecture	Daily a monthly tests
15	3		uniform and point w continuity	Presenting lecture	Daily a monthly tests

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)	Foundations of mathematical analysis A.Ghassan
Main references (sources)	
Recommended books and references (scientific journals, reports…)	

Electronic References, Websites	