Course Description Form

1. Course Name: Real Analysis II

2. Course Code: MATH 310

3. Semester / Year: Second/ 2023-2024

4. Description Preparation Date: 15/10/2023

5. Available Attendance Forms: physical attendance

6. Number of Credit Hours (Total) / Number of Units (Total): 60/4

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

Name: Dr. Aamena Rasim Mohammed
Email: aamen.raimmohammed@nahrainuniv.edu.iq

8. Course Objectives

Course Objectives	- Understand Continuity and learn test the continuity of functions in different methods. - Understand concepts of Riemann Integrations. - Understand concepts of Differentiation.

9. Teaching and Learning Strategies

Strategy	• Giving Lectures supported by exercises and activities in the classroom • Daily and Weekly Assessments. • Giving homework

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	(3)+(1) Discussion	Definition of Continuous Functions	Continuity	Lectures	General questi discussion assignments
Second	(3)+(1) Discussion	Continuity using open and Closed sets	Continuity	Lectures	General questi discussion assignments
Third	(3)+(1) Discussion	Continuity u sequences	Continuity	Lectures	

Fourth	(3)+(1) Discussion	Uniform Continuity	Continuity	Lectures	General discussion assignments questi
Fifth	(3)+(1) Discussion	Concept of sequence Functions convergent	Sequence of Functions	Lectures	General discussion assignments questi
Sixth	(3)+(1) Discussion	Uniform convergent	Sequence of Functions	Lectures	General discussion assignments questi
Seventh	(3)+(1) Discussion	Definition of Riemann	Riemann Integrals	Lectures	General discussion assignments questi
Eighth	(3)+(1) Discussion	Integrals Examples of Riemann	Riemann Integrals	Lectures	General discussion assignments questi
Ninth	(3)+(1) Discussion	Negligible sets¨	Riemann Integrals	Lectures	General discussion assignments questi
Tenth	(3)+(1) Discussion	continuous Functions and integration	Riemann Integrals	Lectures	General discussion assignments questi
Eleventh	(3)+(1) Discussion	The Integration as continuous Function	Riemann Integrals	Lectures	General discussion assignments questi
Twelfth	(3)+(1) Discussion	Differentiation conce	Differentiation	Lectures	General discussion assignments questi
Thirteenth	(3)+(1) Discussion	Definitions Examples	Differentiation	Lectures	General discussion assignments questi
Fourteenth	(3)+(1) Discussion	Differentiation and Integration	Differentiation	Lectures	General discussion assignments questi
Fifteenth	(3)+(1) discussion	the Fundamental Theorem in Calculus	Differentiation	Lectures	General discussion assignments questi

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

Homework 5%
Daily preparation 5%
Monthly Assessments 30%
Final Test 60%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Introduction to Mathematical Analysis, Adil Naoum, Baghdad University-Iraq.
Main references (sources)	Introduction to Mathematica Analysis, William F. Tren USA 2015
Recommended books and references (scientific journals, reports…)	Principle of Mathematical Analysis, Wa Rudin, 2000

Electronic References, Websites	https://www.britannica.com/science/analysis-mathematics