**Republic of Iraq** 

Ministry of Higher Education

& Scientific Research



University: Baghdad College: College Science for Women Department: Mathematics Year: Forth Lecturer name : Radhi I.M.Ali Academic status:Ass. Profeser

Qualification: Ph-D in Mathematic Analysis

## **Course Summary**

Course Instructor	Radhi Ibrahi	m .M.Ali			
E – mail	Radi52@yahoo.com				
Title	Advanced Mathematical Analysis				
Course Coordinator					
Course Objective	e Objective The course is an option course the aim of the course is to give students advanced Mathematical Analysis concepts.				
Course Description					
Textbook	Bartle R.''Elements of Real Analysis''				
References	Rudin W. "Principle of Mathematical Analysis "				
Course Assessments	Terms Tests	Laboratory	Quizzes	Project	Final Exam
	40%	•••••	10%	•••••	50%

## **Course Weekly Outlines**

Week	Topics Covered	Lab. Experiment Assignments
1	1 <sup>st</sup> ,Semester :Introduction &Fundamentals	
	concepts in the real number systems	
2	=======================================	
3	Sequence of function	
4	Convergence of Sequence of function and related	
	theorems.	
5	=============.	
6	Series of Sequence of function Tests of Convergence	
	of Series of Sequence.	
7	==============.	
8	Power Series and radius of convergence.	
9	==============.	
10	The Space R and norms.	
11	The continuity in R.	
12	==============.	
13	The derivative in R.	
14	==============.	
15	Examination	
16	2 <sup>nd</sup> , Semester: The change Rule and Mean value	
	theorem.	
17	=======================================	
18	Integration in R <sup>n</sup>	
19	===============.	
20	===============.	
21	The weakness of Riemann's integration.	
22	Outer measure.	
23	Lebesgue measure.	
24		
25	Lebesgue integration.	
26	=======================================	
27	===================.	
28	Space L <sup>p</sup>	
29	===============.	