

University of Baghdad  
 College of Science for Women  
 Department of Mathematics  
 Year:forth



Lecturer Name: Saad Naji Al.azawi  
 Academic Status: Lecturer  
 Qualification: ph.D. fractional calculus

## Course Summary

<b>Course Instructor</b>	Saad Naji Al.azawi				
<b>E-mail ;</b>	Saad _naji 2007@yahoo				
<b>Title</b>	Electricity and magnetism				
<b>Course Coordinator</b>					
<b>Course Objective</b>	The integral equations volterra and fredholm,linear and non line				
<b>Course Description</b>					
<b>Textbook</b>	Integral Equtions and their applications by M.Rahman,2007 witpress				
<b>References</b>	The same				
<b>Course Assessments</b>	<b>Term Tests</b>	<b>Laboratory</b>	<b>Quizzes</b>	<b>Project</b>	<b>Final Exam</b>
	As (50%)	-----	As (10 %)	-----	As (50%)

## Course Weekly Outlines

Week	Topics Covered	Lab. Experiment Assignments
1.	Historical review or integral equations	-----
2.	Basic definitions	-----
3.	Some applications	
4.	Multiple integrals and single integrals	
5.	Relation between volterra integral equations and initial value problems .	
6.	Relation between Fredholm integral equations and boundary value problems .	
7.	Difinitions and classifications	
8.	Methods of solutions	
9.	Successive approximation method	
10.	Laplace method	
11.	Successive substitution method Adomian decomposition method	
12.	Adomian decomposition method	
13.	Series method	
14.	Volterra of 1 <sup>st</sup> kind fred holm integral equation	
15.	Definitions and classifications	
16.	Method of solution	
17.	Successive Approxination method	
18.	Successive substitution method	
19.	Adomian Decomposition method	
20.	Modifiel Adomian Decomposition method	
21.	Direct computational method	
22.	1 <sup>st</sup> Kind Fredholm Integeral Equation	