

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Republic of Iraq

The Ministry Of Higher Education
& Scientific Research



University: Bagdad
College: Science for Women
Department: Chemistry
Stage: 4th
Lecturer name :Dr. Hamdia H. Juad
Qualification: Ph. D- physical chemistry
Place of work: College of Science for women

Syllabus Form

Instructor Name	Dr. Hamdia H. Juad				
E-mail	hamdiahateem@yahoo.com				
Course Title	Quantum chemistry				
Course Coordinator	Type here the name of course coordinator				
Course Objectives	To teach the principles of quantum theory in chemistry, the solution of some simple physical and chemical systems				
Course Description	The course includes; the classical mechanics, the quantum theory and the Schrodinger equation its solution for some simple physical and chemical systems				
Textbook	1- S. M. Khalid "Elementary quantum chemistry" First edi on, (1982) (in Arabic). 2- M. A. Shanshal "Introduc on to quantum chemistry" First edi on, (1979) (in Arabic). 3- A. A. Alhassun, "physical chemistry" First edi on, (1986) (in Arabic).				
References	1- M. Mueller "Fundamentals of quantum chemistry" kluwer Academic publishers, New York, (2001). 2- R. Grinter, the quantum in chemistry; Johan Wiley and Sons, England, (2005). 3- C. N. Banwell, "Fundamentals of molecular spectroscopy," second edition,				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	As(20%)	-----	10	10	As(60%)
General Notes	This course is important to the chemists who will work in theoretical , it is the subject of the new life.				

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Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
1	9/2015	The classical mechanics		
2	9/2015	Harmonic oscillator and the		
3	10/2015	moth ion of charged two		
4	10/2014	particles systems black body		
5	10/2015	radiation, photoelectric		
6	10/2014	effect and atomic states		
7	11/2015	Somerfield quantization bases		
8	11/2015	Solution of simple systems		
9	11/2015	Hydrogen atom		
10	11/2015	Examination		
11	12/2015	The postulate of quantum		
12	12/2015	Schrödinger's wave equation		
13	12/2015	Solution of Schrödinger equation for molecules		
14	12/2015	Valence bond theory		
15	1/2016	Molecular orbital theory		
16	1/2016	Exam		
Half – year break				

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Instructor Signature:

Dean Signature: