

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Republic of Iraq
The Ministry Of Higher
Education
& Scientific Research



University: Baghdad
College: Science for women
Department: computer science
Stage: first stage
Lecturer name: haider.M.abdulhadi
Qualification: M.Sc. in Engineer
Place of work: college of Science for women/ computer science

Syllabus Form

Instructor Name	haider.M.abdulhadi				
E-mail	Haider.abdulhadi2@gmail.com				
Course Title	Logic Design (2)				
Course Coordinator					
Course Objectives	Teach Students the basic principles of logic gates and logic operations, the design and implementation of different logic circuits.				
Course Description	Four main topics are presented, Numbering Systems and Codes, Coding, Boolean Algebra and Logic Gates, Minimization of Logic Expression.				
Textbook	▪ Digital Design, Third Edition, by M. Morris Mano. Prentice-Hall, Inc. 2002				
References	1- Logic Design ,Digital Principles and Application", Malvino, 2000 2- "Introduction to Logic Design" (2nd edition), Sajjan G. Shiva, 2007				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	As(25%)	As(15%)	As(0%)	-	As(60%)
General Notes	Type here general notes regarding the course				

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Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
1		Half adder and full adder, different logic circuit design using half and full adder	Half adder and full adder	
2		Half Subtractor and full subtractor, different logic circuit design using half and full subtractor	Half Subtractor and full subtractor	
3		4-bits BPA and, different logic circuit design using 4-bits BPA	4-bits BPA	
4		1-bit, 2-bits, and 4-bits magnitude comparator, different logic circuit design using comparator	1-bit, 2-bits magnitude comparator	
5		Logic circuit design using SSI and MSI	Logic circuit design using SSI and MSI	
6		2, 3, 4 variables decoders	decoders	
7		Function implementation using decoder	Function implementation using decoder	
8		Encoders	Encoders	
9		2, 3, 4 variables multiplexer	Multiplexer	
10		Function implementation using multiplexer	Function implementation using multiplexer	
11		De-multiplexer	De-multiplexer	
12		Flip-flops	Flip-flops	
13		Synchronous counter	Synchronous counter	
14		Asynchronous counters	Asynchronous counters	
15		Examination	Examination	

Instructor Signature:

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