

Kingdom of Saudi Arabia
Ministry Of Higher Education
Majmaah University
Deanship of Quality assurance
and Human Development



Course Specification

(Summary)

Logic Design CIS 111

1431/1432

Course Specification

Institution: Majmaah University
College/Department : College of Science (Zulfi) / Computer Science and Information Department

A- Course Identification and General Information

1. Course title and code: <i>Logic Design CIS 111</i>
2. Credit hours: 4
4. Name of faculty member responsible for the course: Dr.: Yosry A. Azzam
5. Level/year at which this course is offered : 1
6. Co-requisites for this course (if any): nothing
7. Location if not on main campus

B- Objectives

Digital computer and information (numbering systems, arithmetic operations, decimal codes, etc), Combinational logic circuits (binary logic and gates, Boolean algebra, Combinational circuits simplification, CMOS circuits), combinational 1 design (design procedure, Decoders, multiplexers, binary adder and subtracter), Sequential circuits (Latches, Flip flops, Synchronous Sequential circuits analysis and design), analysis and design of synchronous sequential machines: Representation, state reduction and realization; Finite state machines.

C- Course Description (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

1. Topics to be Covered		
List of Topics	No of Weeks	Contact hours
Course Introduction Introduction to digital systems and their applications	1	5
Binary systems	2	10

Boolean Algebra and logic gates	3	15
Gate Level Minimization	2	10
Combinational Logic	3	15
Synchronous Sequential Logic	3	15

2. Course components (total contact hours per semester):

Lecture: 42	Tutorial:	Laboratory: 28	Practical/Field work/Internship	Other:
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3. Additional private study/learning hours expected for students per week. (This should be an average for the semester not a specific requirement in each week): 5 hrs

4. Schedule of Assessment Tasks for Students During the Semester

	Exam	Week	Grade
	Midterm exam	6	15 %
	Practical exam	12	15 %
	Home work+quiz	Along the term	10 %
	Final Lab Exm	15	20%
	Final exam	16	40 %

D- E Learning Resources.

Required Text(s) .1

M. Morris Mano Digital Design, 3rd Ed., 2007

2. Essential References

3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)

4-.Electronic Materials, Web Sites etc
5- Other learning material such as computer-based programs/CD, professional standards/regulations

E- Assessment

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| <ul style="list-style-type: none">- Assessment of students.- Assessment of teacher performance scheduled by questionnaires.- Discussions of teachers with students.- Department board discussions.- Discussions between staff responsible for teaching the course. |
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