جامعة المجمعة
Majmaah University

Course Specifications

Muharram 1437 H

Institution:	Majmaah University.
Academic Department :	Electrical Engineering
Programme :	Electrical Engineering
Course :	Microprocessor EE 360.
Course Coordinator :	Dr. Abdel-Rahman Al-Qawasmi
Programme Coordinator :	Dr. Abdullah Almihaisen
Course Specification Approved Date :	…./ … / …… H

This form compatible with NCAAA 2013 Edition

A. Course Identification and General Information

1 - Course title : Microprocessor		Course Code: EE 360	
2. Credit hours : (3)			
3 - Program(s) in which the course is offered: Electrical Engineering			
4 – Course Language : English.			
5 - Name of faculty member responsible for the course: Dr. Abdel-Rahman Al-Qawasmi			
6 - Level/year at which this course is offered : $7^{th}/4^{th}$			
7 - Pre-requisites for this course (if any) : • **EE 111 (Basic Electronic Devices and Circuits) & EE208 (Logic Design)**			
8 - Co-requisites for this course (if any) : • **None**			
9 - Location if not on main campus **:** **)Yahya Campus(**			
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	X	What percentage?	**100 %**
B - Blended (traditional and online)		What percentage?	**……. %**
D - e-learning		What percentage?	**……. %**
E - Correspondence		What percentage?	**……. %**
F - Other		What percentage?	**……. %**
Comments : ……			

B Objectives

What is the main purpose for this course? ……
Briefly describe any plans for developing and improving the course that are being implemented : **To Introduce the Basic Concepts Related to Architecture and Programming Microprocessor Systems through applying Hardware and Software Design and Implementation Process.**

C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
Basic microprocessor architecture	2	8
Timing and signaling for interface applications and control	2	8
Instruction execution cycles and sequencing	2	8
Interrupts, memory systems design and organization	2	8
Basic peripheral interfacing and interface design	2	8
Software topics including assembly language programming	2	8
Interrupt handlers, fast arithmetic algorithms and hardware description languages (HDL).	3	12

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

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	**45**	**15**	**0**	**0**	**0**	**60**
Credit	**3**	**0**	**0**	**0**	**0**	**3**

3. Additional private study/learning hours expected for students per week.

On average two hours per week needed to prepare the required assignments and Homework

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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	**.....**	.....	.....
1.2	**.....**	.....	.....
1.3	The ability to recall, understand, and present information, including knowledge of specific facts, knowledge of concepts, principles and theories, and knowledge of procedures	Lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, memorization and individual presentation	Standardized exams, Seminars and Assignments
1.4	**.....**	.....	.....
1.5	**.....**	.....	.....
1.6	**.....**	.....	.....
2.0	**Cognitive Skills**		
2.1	**.....**	.....	.....
2.2	**.....**	.....	.....
2.3	An ability to identify, formulate, and solve engineering problems	Lecture, small group work, , research activities, lab demonstrations, projects and individual presentation	Standardized exams, oral exams, micro projects
2.4	The ability to analyze, design, and implement systems.	Lecture, small group work, , research activities, lab demonstrations, projects and individual presentation	Standardized exams, oral exams, micro projects
2.5	**.....**	.....	.....

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
2.6	.....	.....	.....
3.0	**Interpersonal Skills & Responsibility**		
3.1	.....	.....	.....
3.2	.....	.....	.....
3.3	.....	.....	.....
3.4	.....	.....	.....
3.5	.....	.....	.....
3.6	.....	.....	.....
4.0	**Communication, Information Technology, Numerical**		
4.1	.....	.....	.....
4.2	.....	.....	.....
4.3	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	Lecture, research activities, lab demonstrations, projects, case studies, memorization and individual presentation	Standardized exams, oral exams, micro projects
4.4	The ability to utilize statistics/probability, transform methods, discrete mathematics, or applied differential equations in support of electrical systems.	Lecture, research activities, lab demonstrations, projects, case studies, memorization and individual presentation	Standardized exams, oral exams, micro projects
4.5	.....	.....	.....
4.6	.....	.....	.....
5.0	**Psychomotor**		
5.1	.....	.....	.....
5.2	.....	.....	.....
5.3	.....	.....	.....
5.4	.....	.....	.....
5.5	.....	.....	.....
5.6	.....	.....	.....

5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total

			Assessment
1	First Exam	7	20%
2	Second Exam	13	20%
3	Final Exam	15	40%
4	Quizzes and Homework	During semester	20%

D. Student Academic Counseling and Support

1. All students are distributed among academic advisors
2. Advising Information are included in the student Guide and in the college website
3. Every Advisor assignees 3 office hours for supporting the student academic counselling

E. Learning Resources

1. List Required Textbooks :

Jon Stokes: "Inside the Machine: An Illustrated Introduction to Microprocessors and Computer Architecture", No Starch Press; 1 edition November 30, 2006.

2. List Essential References Materials :

- .....
- .....
- .....

3. List Recommended Textbooks and Reference Material :

Richard Detmer: " Introduction to 80x86 Assembly Language and Computer Architecture", Jones & Bartlett Publishers; 2 edition, February 26, 2009.

4. List Electronic Materials :

- .....
- .....
- .....

5. Other learning material :

- .....
- .....
- .....

F. Facilities Required

1. Accommodation

25 seats in the classroom
2. Computing resources • - Data show • - Laptop
3. Other resources • ..... • ..... • .....

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching: • Completion course evaluation questionnaire, • Classroom observations to measure Student Behavior through how well the student groups are interacting in-class activity and how well the in-class activity went
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor : • Faculty Peer Assessment
3 Processes for Improvement of Teaching : • Plan: The instructor will develop a strategy for teaching. • Do: The strategy will be implemented for one semester. • Study: The experiences of the students will be collected through a survey. • Act: Effective teaching strategies will be implemented and revised as more experiences are gained.
4. Processes for Verifying Standards of Student Achievement • Check marking of a sample of examination papers.
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement : • Continuous improvement is a circular process, encompassing student assessment, course planning and design, implementation, evaluation, and revision. • A feedback from all relevant assessment tools must be considered in the continuous process of course objectives refinement and assessment. • Continuous process for reviewing feedback from student on the quality of the course and planning for improvement.

Course Specification Approved
Department Official Meeting No (…..) Date … / …. / ….. *H*

Course's Coordinator		Department Head	
Name :	Dr. Abdel-Rahman Al-Qawasmi	***Name :***	Dr. Abdullah Al-Muhaisen
Signature :	.....	***Signature :***	.....
Date :	…./ … / …… *H*	***Date :***	…./ … / …… *H*