University / Academy : Menoufiya University

Collge / Institute: Faculty of Electronic Engineering

Department: Electronics and Electrical Communications Engineering

Course Specification

1- Course basic information :						
Course Code: EC 123	Course Title: <i>Electrical Workshop</i>	Academic year: 2012/2013 Level (1) – Semester : 2				
Faculty requirement	Teaching hours: Lecture	Tutorial 0 Lab 2				

2- Aim of the course	 To introduce the students to the fundamentals of Electrical assembly. To learn basic practical exercise. 				
	To develop the student's skills to design electrical projects				
3- Intended Learning Outcomes:					
A- Knowledge and Understanding:	a3) Characteristics of engineering materials related to the Electrical workshop.a4) Principles of design including elements design, process and/or a system related to specific Electrical workshop.				
	a12) Contemporary engineering topics.				
B- Intellectual Skills	b4) Combine, exchange, and assess different ideas, views, and knowledge from a range of sources.b5) Assess and evaluate the characteristics and performance of components, systems and processes.				
C. Desfessional Cliffs	b6) Investigate the failure of components, systems, and processes.c2) Professionally merge the engineering knowledge, understanding,				
C- Professional Skills	and feedback to improve design, products and/or services. c4) Practice the neatness and aesthetics in design and approach.				
	c6) Use a wide range of analytical tools, techniques, equipment, and software packages pertaining to the electrical workshop and develop required computer programs.				
D- General Skills	d1) Collaborate effectively within multidisciplinary team. d5) Lead and motivate individuals.				

	d9) Refer to relevant literatures.				
4- Course Contents	1-Electrical Components. 2-Tests. 3-Famous Applications for Components. 4-Planning and Designing Electronic Packaging. 5-PCB Design Manufacturing. 6-Troubleshooting Tests. 7-Projects.				
5- Teaching and Learning Methods	 Lectures Tutorials Labs and/or case studies Research assignments 				
6- Teaching and Learning Methods for disable students	NA				
7- Student Assessmer	nt				
a- Assessment Methods	- Weekly sheet exercises at class room - Quizzes - Labs and/or case study for more demonstration.				
b- Assessment Schedule	- Mid term, and final exams - Exercise sheet/ Lab assignment: Weekly - Quizz-1: Week no - Mid-Term exam: Week no 8 - Quizz-2: Week no - Lab exam: Week no - Final – term examination: Week no				
c- Weighting of Assessment	- Class tutorial and quizzes: 5 % - Mid-term examination: 15 % - Case study and/or practical exam: 10 % - Final – term examination: 70 % - Other types of assessment: % Total 100 %				
8- List of text books a					
a- Course notes	There are lectures notes prepared in the form of a book authorized by the department				

b- Text books	Lectures notes prepared in the form of a book authorized by Dr. Gaber					
	El-abyad and Dr. Mahmoud El-kholy					
c- Recommended	[1] Surface Mount Technology: Principles and Practice ISBN 0-412-					
books	12921-3					
	[2] Electronic Fabrication, by Gordon Shimizu, ISBN 0-8273-2450-2.					
	تكنولوجيا التثبيت السطحي للعناصر الالكترونية-دكتور جابر الأبيض [٣]					
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	العناصر الألكترونية - دكتور محمود الخولي [٤]					
d- Periodicals, Web						
sitesetc						

Course contents - ILOs Matrix

Content Topics	Week	A- Knowledge & Understanding	B- Intellectual skills	C- Professional and practical skills	D- General and transferable skills
1-Electronic Components.	1-2	A3, A4	B5, B6	C2, C5	D1, D5
-Tests -Famous Applications for Components.	3-5	A3, A12	B4, B6	C4, C9	D1, D9
- Planning and Designing Electronic Packaging.	6-7	А3	B4, B5	C2, C5. C9	D5, D9
-PCB Design Manufacturing.	9-11	A4, A12	B4, B5, B6	C4, C5	D1, D9
- Troubleshooting Tests Projects.	13-14	A3, A4	B5, B6	C4, C5, C9	D1, D5, D9

Course coordinator:

Head of Department:

Date: / /