

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 <input type="text" value="2"/> Tutorial <input type="text" value="0"/> Lab <input type="text" value="2"/>	

2- Aim of the course	<ul style="list-style-type: none">• 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. b6) Investigate the failure of components, systems, and processes.
C- Professional Skills	c2) Professionally merge the engineering knowledge, understanding, 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.

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 books	[1] Surface Mount Technology: Principles and Practice ISBN 0-412-12921-3 [2] Electronic Fabrication, by Gordon Shimizu, ISBN 0-8273-2450-2. [٣] تكنولوجيا التثبيت السطحي للعناصر الالكترونية-دكتور جابر الأبيض [٤] العناصر الألكترونية – دكتور محمود الخولي
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	A3	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: / /