



JABATAN KEJURUTERAAN ELEKTRIK

ASPECTS PSYCHOMOTOR ASSESMENT FORM
 (Skill Assesment)
 (CLO3P & CLO4A)

Mini Project Title

NO.	STUDENT .ID	STUDENT NAME	LOGBOOK						TOTAL MARKS	**GENERIC SKILL ATTRIBUTE2				TOTAL MARKS	GENERIC SKILL ATTRIBUTE 2
			CLO3P							CLO4A					
			Circuit design	PCB layout	Soldering	Photolithography	Etching	Circuit testing		Acquire Information	Manage Information	Share Ideas	Learn Independently		
			5	5	5	5	5	5	30	5	5	5	5	20	50
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															

** The generic skill (CLO4) mark is separate from the coursework assessment mark.

Supervisor Signature :
 Supervisor Name :
 Date :

RUBRICS

Assessment	Skills / Aspects	Excellent	Very Good	Good	Fair	Unsatisfactory
			4	3	2	1
ASPECTS PSYCHOMOTOR (Skill Assessment)	Circuit Design - Design techniques - Design results	Able to use correct design techniques and produce correct simulation results / displays 90 -100% successfully.	Able to use correct design techniques and produce correct simulation results / displays for 70 -89% parts of the project circuit.	Able to use correct design techniques and produce correct simulation results / displays for 40 - 69% parts of the project circuit.	Inability to use proper design techniques and produce correct simulation results / displays for 20 - 39% parts of the project circuit.	Inability to use proper design techniques and produce correct simulation results / displays for 0 - 19% part of the project circuit.
	PCB layout using CAD - track size and distance - pad size - footprint selection and placement - layout size	Perfect track size, track distance, pad size, footprint selection and placement and PCB layout size.	Moderate track size, track distance, pad size, footprint selection and placement and PCB layout size.	Proper and acceptable track size, track distance, pad size, footprint selection and placement and PCB layout size.	Proper track size, track distance, pad size, footprint selection and placement and PCB layout size.	Improper track size, track distance, pad size, footprint selection and placement and PCB layout size.
	Soldering - use of soldering tools - soldering quality	Correct handling of the soldering and desoldering tools. Solder is shiny and of proper size.	Correct handling of the soldering and desoldering tools. Solder in proper size.	Correct handling of the soldering and desoldering tools. Produce a few cold-joint or bulky solder.	Proper handling of the soldering and desoldering tools. Produce a few cold-joints and bulky solder.	Improper handling of the soldering and desoldering tools. Produce many cold-joints and bulky solder.
	Photolithography - use of photolithography tools (UV exposure unit) - exposure duration	Able to use and handle correctly the UV exposure unit and correct exposure duration used.	Able to use and handle the UV exposure unit and correct exposure duration used.	Acceptable handling of the UV exposure unit and correct exposure duration used.	Acceptable handling of the UV exposure unit in a proper manner and over setting the exposure duration.	Not able to use and handle the UV exposure unit in a proper manner and over setting the exposure duration.
	Etching - steps in etching process - PCB quality (after etching)	Observe the safety procedures of handling the etchant in the etching steps, PCB tracks produced are well-defined and shiny with no oxide layer on the tracks.	Observe the safety procedures of handling the etchant in the etching steps, PCB tracks produced are well-defined shiny with some oxidated tracks.	Observe the safety procedures of handling the etchant in the etching steps, produced some well-defined shiny PCB tracks and some oxidated tracks.	Observe the safety procedures of handling the etchant in the etching steps, produced are jagged and corroded tracks with oxide layer.	Does not observe the safety procedures of handling the etchant in the etching steps, PCB tracks produced are jagged and corroded tracks with oxide layer.
	Circuit testing - use of correct testing tools - use of correct circuit testing technique	Use correct tools and techniques to trace the input and output and testing of all parts of the project circuit.	Use correct tools and techniques to trace the input and output and testing of some parts of the project circuit.	Use correct tools and techniques to trace the input and output and testing in a few parts of the project circuit.	Use correct tools and techniques to trace the input and output and testing of the project circuit.	Incorrect use of tools and techniques to trace the input and output and testing of the project circuit.
GENERIC SKILL ATTRIBUTE2	A. Acquire Information: Able to acquire relevant information from various sources.	Retrieve relevant information from various (more than 4) sources.	Retrieve relevant information from four sources.	Retrieve relevant information from three sources.	Retrieve relevant information from only two sources.	Retrieve relevant information from only one source.
	B. Manage Information: Able to manage acquired information.	Always analyze and integrate acquired information with own ideas.	Usually analyze and integrate acquired information with own ideas.	Often analyze and integrate acquired information with own ideas.	Sometimes analyze and integrate acquired information with own ideas.	Hardly analyze and integrate acquired information with own ideas.
	C. Share Ideas: Ready /willing to share new ideas.	Frequently involve in discussion, share ideas and resources.	Usually involve in discussion, share ideas and resources.	Often involve in discussion, share ideas and resources.	Sometimes involve in discussion, share ideas and resources.	Hardly involve in discussion, share ideas and resources.
	D. Learn Independently: Able to learn independently.	Demonstrate the ability to learn independently with minimum supervision.	Demonstrate the ability to learn independently with usually supervision.	Demonstrate the ability to learn independently with some supervision.	Sometimes able to learn independently and need consistent supervision.	Hardly able to learn independently and need consistent supervision.