UEE10111 Certificate 1 in ElectroComms Skills

Course Outline: Year 11 2015 Semester 1.

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UEE10111 Certificate I in ElectroComms Skills

Description

This qualification provides competencies to perform basic work activities.

A project based holistic approach to learning is applied throughout this two year course.

Year 11 Project: Build, dismantle and re-assemble a 36 'Led' light show.

Students learn to identify and use a range of components, accessories, materials, tools, equipment, technologies, and customs to carry out work in the electrotechnology, and communications industry.

Industries include electronics, electrical, communications, computer systems, instrumentation, lifts, refrigeration and air conditioning, and renewable/sustainable energy.

To achieve competency students must complete projects within reasonable time; and in compliance with industry standards.

How to successfully gain your Certificate I in ElectroComms Skills
In order to successfully complete the Certificate, students are required to:

1. Maintain a positive work ethic.
2. Complete each learning tasks within the given time frames.
3. Organise extra tutorials as needed.
4. Regularly update your learning log.
5. Present each assessment task on time. (follow assessment calendar times)
6. Regularly update your training record book.
7. Frequently discuss your learning progress with your teacher.
8. Maintain given workshop procedure standards.
9. Complete all Competency Standard Units.
10. Maintain a productive use of time.
11. *Always seek teacher assistance if you experience difficulties.*

Year 11 Competency Based Assessment.

The course is a project based holistic approach to learning. To achieve competency students must complete projects within reasonable time; and in compliance with industry standards.

Refer to assessment calendar to view project based assessment task items, and due dates.

Semester 1 : Core Competency Standard Units	
UEENEED101A	Use computer applications relevant to a workplace.
UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace.

Year 11 Course Outline

TERM 1			
Week	**Topic**	**Class Activity**	**Home Activity**
1.	• VET Induction • Course Outline • Assessment Calendar	Overview: VET induction; course outline; assessment calendar.	Review: VET induction check list; course outline; assessment calendar.
2.	• Electronics Workshop Procedures • Record Keeping	Overview: electronics workshop procedures; training record book; and learning log.	
3.	• Lightshow Prototype • e book OH&S • OH&S Risk Assessment	Commence Prototype project. Complete OH&S worksheets. Apply OH&S risk assessment criteria when using workshop exit/entry and walkways.	Complete OH&S worksheets. Complete OH&S risk assessment worksheet entry for week 3.
4.	• Design 36 Led panel layout patterns • OH&S Risk Assessment	Follow instruction guide for led panel layout design considerations. Apply OH&S risk assessment criteria to house-keeping.	Complete OH&S risk assessment worksheet entry for week 4.
5.	• Determine position of parts, assembly and subassemblies in prototype • OH&S Risk Assessment	Follow instruction guide for design considerations. Apply risk assessment criteria to workshop storage of tools, equipment, raw materials, and projects	Complete OH&S risk assessment worksheet entry for week 5.
6.	• Diagrams: circuit; wiring and layout • Led panel templates	Compete project diagrams. Draw Led panel templates.	
7.	• Build Prototype • OH&S Risk Assessment	Build Prototype Model Apply OH&S risk assessment criteria to workshop 240volt electrics.	Complete OH&S risk assessment worksheet entry for week 5.
8	• Setup a soldering work station • Record Keeping	Follow workshop and safety procedures to set up a soldering work station. Confirm training record book and learning log is up to date.	

9.	• Solder a resistor to a printed circuit board • OH&S Risk Assessment	Follow workshop and safety procedures. Apply OH&S risk assessment criteria to using the soldering work station.	Complete OH&S risk assessment worksheet entry for week 9.
10.	• Training record book, and course feedback	Review records (training record book; learning Log). Complete learning task feedback sheets; complete a course feedback survey.	
TERM 2			
Week	**Topic**	**Class Activity**	**Home Activity**
1.	• PCB Art Work • Risk Assessment	Use Circuit Wizard to produce and print the PCB art work for the project. Apply OH&S risk assessment criteria for using computers in the electronics workshop environment.	Complete OH&S risk assessment worksheet entry for week 1. Term 2
2.	• Electronic Components • Parts Order Form	Overview of electronic components. Develop a parts order form Complete and submit an order form for the Light Show Project.	
3.	• Using a regulated power supply • Reading a Multimeter	Connect regulated power supply following operator manual instructions. Connect resistors in series. Measure resistance, voltage and current.	Study relationships of resistance, voltage and current in a series circuit.
4.	• Using a regulated power supply • Reading a Multimeter	Connect resistors in parallel Measure resistance, voltage and current. Follow workshop procedures	Study relationships of resistance, voltage and current in a parallel circuit
5.	• Set up a job schedule • OH&S Risk Assessment	Develop job task sequence for project. Apply OH&S risk criteria to the use of a bandsaw; drill press; bench grinder; power tools; and hand tools.	Complete OH&S risk assessment worksheet entry for week 5. Term 2
6.	• Using machines and tools. • Sharpening a drill bit	Follow machine and tool operating/safety procedures: bandsaw; drill press; bench grinder; power tools; and hand tools. Follow procedures to sharpen a drill bit.	
7.	• Cut and drill housing	Cut and drill LED display panels in compliance with industry standards.	
8.	• Cut and drill housing • Write Light Show user manual	Cut and drill LED display panels in compliance with industry standards. Confirm check list completed for written user manual.	
9.	• Test 36 Leds • Write a Light Show	Setup test equipment and test leads. Follow check list guide to	

	service manual	writing a service manual. Confirm check list completed for written user manual.	
10.	• Learning reflections and course feedback	Review records: (Training record book; Learning Log); Complete learning task feedback sheets; complete a course feedback survey.	

Teacher Assistance and Grievances

The most important time to seek teacher assistance is during lessons. If you do not understand, ask questions and seek clarification. You need to really focus during classes so that you can gain the most from the expertise of the teacher and other students. If the activities are not helping you to learn let Mr Arnet know by telling him in class or e-mailing him.

If after doing your best in class, you are having difficulties, you can also seek Mr Arnet's assistance via e-mail or through a meeting outside class time. However it is important to note that private tutorials are not offered to students who do not focus in class.

Mr Arnet will provide you with feedback on how you are progressing. Use this to improve. If you are unsure about or disagree with the feedback or your results, please discuss your concerns with him. If you are still dissatisfied after this discussion, you may discuss the issue with the Academic Coordinator for IND Mr. Mark Kudeborg.

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