

AVIO C1602: Avionics Fundamentals 1

NFQ Level: 6 Module Delivered In 3 programme(s) Teaching & Learning A series of lectures, tutorials, class-based tasks, and laboratory exercises will be used. The practical sessions will be used to support the theory. The Institute VLE will be used to interactively communicate with students. Module Aim: To give students an understanding of the principles of electric circuits. To develop their ability to apply circuit laws to basic electric circuits. Module Aim: To give students an understanding of the principles of electric circuits. To develop their ability to apply circuit laws to basic electric circuits. Describe The fundamentals of electric circuits. Interpret the fundamentals of electric circuits. L01 Interpret the fundamentals of an electrical circuit (AC/DC). L03 Perform calculations to permit the analysis of an electrical circuit (AC/DC). L04 Work in an electronic laboratory with due regard for his/her safety and that of others. L05 Using schematic diagrams, build and test electrical circuits in a laboratory environment. Pre-requisite learning Module Sisted Module Recommendations The is prior learning outcomes that are too similar to the learning outcomes of this module. No recommunationed within have learning outcomes that are too similar to the learning outcomes of this module. No incompatible Modules These are modules which have learning outcome								
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No requirements listed								
	No requirem							



AVIO C1602: Avionics Fundamentals 1

Module Content & Assessment

Indicative Conten	t						
Electron Theory Molecular structure of conductors, semiconductors and insulators.							
Static Electricity and Conduction Static electricity and distribution of electrostatic charges; Conduction of electricity in solids, liquids, gases and a vacuum.							
Electrical Termino Electrical terms, the		and factors affecting them.					
DC Sources of Ele Construction and b		, emical action of batteries.					
DC Circuits Ohms Law, Kirchho	off's Vol	tage and Current Laws;					
Power Power, work and e	nergy.						
	Capacitance/Capacitor Operation and function of a capacitor.						
AC Theory Properties of Sinusoidal waveforms.							
Diodes Diode characteristi	cs, prop	erties and applications.					
Assessment Breakdown				%			
Continuous Assess	sment		60.00%				
Practical			40.00%				
Continuous Asse	ssment						
Assessment Type		Assessment Description	Outcome addressed		% of total	Assessment Date	
Other		Several in-class and/or online assessments.	1,2,3		60.00	Ongoing	
No Project							
Practical							
Assessment Type	Asses	sment Description	Outcome addressed		% of total	Assessment Date	
Practical/Skills Evaluation	assign assign	cal Assignments: The student will complete practical ments during the module and write a report on each ment. Practical tests: Learners will complete practical tasks for ative assessment.	1,2,3,4,5 40.00 Every Week		Every Week		
No End of Module	Formal	Examination					

SETU Carlow Campus reserves the right to alter the nature and timings of assessment



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Module Workload

Workload: Full Time							
Workload Type	Frequency	Average Weekly Learner Workload					
Lecture	12 Weeks per Stage	5.00					
Practicals	12 Weeks per Stage	4.00					
Independent Learning	15 Weeks per Stage	9.47					
	Total Hours	250.00					

Module Delivered In Delivery Programme Code Semester Programme CW_EEAER_B Bachelor of Engineering (Honours) in Aerospace Engineering 1 Mandatory CW_EEACS_D 1 Mandatory Bachelor of Engineering in Aircraft Systems CW_EEPLT_D Bachelor of Science in Pilot Studies 1 Mandatory