



Institiúid Teicneolaíochta Chorcaí
Cork Institute of Technology

ELTR6011: Electronics Applications 1

Module Details

Short Title:	Electronics Applications 1	APPROVED
Full Title:	Electronics Applications 1	
Module Id:	2789	
Official Code:	ELTR6011	NFQ Level: 6
		ECTS Credits: 5

Coordinator:	JOSEPH CONNELL
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Description:	This module develops the skills required to work safely and ethically in the laboratory. Project driven, it allows students to evaluate components, construct and test circuits and develop their communication skills.
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Learning Outcomes:

On successful completion of this module the learner will be able to...

1. Recognise relevant Health & Safety and Environmental legislation and demonstrate safe and ethical laboratory practice.
2. Interpret schematic diagrams and realise the circuits.
3. Perform measurements on a circuit using suitable test equipment.
4. Research information on electronic components and devices using the Internet and/or library.
5. Prepare and deliver an oral presentation on a given topic.

Pre-requisite learning

Module Recommendations

This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named CIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).

No recommendations listed

Incompatible Modules

These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.

No incompatible modules listed

Module Requirements

This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.

No requirements listed



Module Content & Assessment

Indicative Content

- **Health & Safety, Environment**

Good laboratory practice, environmental concerns, soldering hazards, correct use of tools, housekeeping

- **Circuit Construction**

Interpretation of schematic diagrams, circuit construction via veroboard and printed circuit board

- **Test & Measurement**

Use of test equipment e.g. multimeter, oscilloscope, signal generator in appropriate context

- **Research information**

Search for suitable components, identify relevant specifications, research information on given topics

- **Presentation Skills**

Preparation of slides on relevant topic and delivery to their peers

Assessment Breakdown

	%
Course Work	100%
End of Semester Formal Examination	0%

Coursework Breakdown

<i>Type</i>	<i>Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Assessment Date</i>
Multiple Choice Questions	Assessment on Lab Regulations	1	10	Week 1
Project	Construct and test a circuit on veroboard	1,2,3,4	25	Week 5
Project	Construct and test a PCB	1,2,3,4	25	Sem End
Written Report	A short report (5 page max.) on their work	1,2,3,4	20	Week 10
Presentation	Oral presentation with slides	4,5	20	Sem End

The institute reserves the right to alter the nature and timings of assessment



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Module Workload & Resources

Workload		Full-time mode			
Type	Description	Hours	Frequency	Average Weekly Learner Workload	
Lab	Various activities in workshop environment	4	Every Week	4.00	
Independent & Directed Learning (Non-contact)	Independent research and preparation of presentation	3	Every Week	3.00	
Total Weekly Learner Workload				7.00	
Total Weekly Contact Hours				4.00	

Workload		Part-time mode			
Type	Description	Hours	Frequency	Average Weekly Learner Workload	
Lab	Various activities in workshop environment	3	Every Week	3.00	
Independent & Directed Learning (Non-contact)	Various activities	2	Every Week	2.00	
Independent & Directed Learning (Non-contact)	Independent research and preparation of presentation	2	Every Week	2.00	
Total Weekly Learner Workload				7.00	

Resources

Other Resources

- Website: <http://www.howstuffworks.com/>
- Website: <http://www.epanorama.net/>
- Website: <http://ie.farnell.com/>
- Website: <http://www.radionics.ie/>
- Website: <http://www.komplett.ie/>
- Website: Other websites to be advised at commencement of study period