

MODULE DESCRIPTOR

MODULE TITLE	ELECTRONIC ENGINEERING PRACTICE		
MODULE CODE	EL1205 (L4)	CREDIT VALUE	20 CREDITS (10 ECTS)
CAMPUS	UCLAN CYPRUS		
SCHOOL	SCHOOL OF SCIENCE		

MODULE AIMS

To give students the basic practical skills and knowledge required to develop electronic systems, and to raise students' awareness of personal and professional development relating to employability.

MODULE CONTENT

Electronic components and their characteristics, including:

- Component technologies.
- Component tolerances and preferred value series.
- Interpreting data sheets.
- Using standards.

Laboratory techniques, including:

- Characteristics and use of electronic laboratory equipment.
- Using computers in the laboratory.
- Keeping a log book.
- Fault finding.

Use of ECAD for:

- Schematic capture.
- Circuit simulation.
- PCB design.

Electronic circuit construction techniques:

- Soldering.
- Use of prototyping boards.
- PCB design and manufacture.

Project Management techniques:

- Case Study – Specification Development:
- Case Study – Commercial production of electronic systems.

INTENDED LEARNING OUTCOMES

On successful completion of this module a student will be able to:	
1.	Identify, select and describe electronic components and their characteristics
2.	Use standard electronic laboratory equipment
3.	Use Electronic Computer Aided Design (ECAD) tools
4.	Construct simple electronic circuits using appropriate prototyping techniques
5.	Apply project management techniques to a small multi-discipline project
6	Distinguish between development techniques that are appropriate to prototype and production environments
7	Develop a detailed technical specification, including costing, for a product or circuit, based on initial customer requirements.
8	Demonstrate self-awareness in relation to their future careers and lives.

TEACHING METHODS

This module is delivered through guided practical work in laboratory classes supported by lectures, directed reading and industrial site visits. Students are introduced to the theory and practical application of a range of electronic tools and technologies. Where appropriate, case studies are used to enhance theoretical material. As the year progresses, students are encouraged to work more and more independently.

ASSESSMENT METHODS

The module is assessed through small design projects, a presentation, an individual project and an Employability portfolio (or equivalent): to contain a selection of personal and professional development exercises.