

Full Title	Project Engineering and Management		
Status	Uploaded to Banner	Start Term	2012
NFQ Level	07	ECTS Credits	10
Module Code	ELEC07032	Duration	Stage - (26 Weeks)
Grading Mode		Department	Electronic & Electrical Eng
Module Author	Barry Finnegan		
Co Authors	Ray Weldon		

Module Description

Each student designs and implements a unique embedded system in conjunction with the project supervisor . There are also supporting project management classes.

Learning Outcomes

On completion of this module the learner will/should be able to:

1. Design, implement and test the technical aspects of the hardware and software elements and their interfaces.
2. Prepare and deliver presentations/reviews to peer groups on the specification, planning, implementation and test of a project.
3. Document a project to a professional standard, including as appropriate the requirements, hardware description, schematic, test report, stock-list, bill of materials, power budget, software description, flowcharts, and operating instructions.
4. Plan a project from specification stage to completion.
5. Work as a self sustaining engineering technician or as a member of a team.
6. Understand structures and practices in industry and organisations, and be aware of their professional obligations and responsibilities.

Indicative Syllabus

Students do a project either individually or in small teams.

The project is in electrical or electronic engineering; an example could involve PLC, HMI, PID control.

Project Design, implementation, test, documentation

Project Research techniques:-using search engines, reading technical specifications.

Design Strategy:- design for test, top down, bottom up, Troubleshooting. Coding Techniques - code reviews.

Project Management: planning, budgeting, critical path, life cycle

Presentation skills - targeting audience, visual aids, preparation of content, delivery, answering questions.

Technical writing.

Peer review process.

Industrial and Organisational Structures and Practices:-

Quality systems (ISO, FDA)

Professional Obligations and Responsibilities:- Health and Safety, Legal Issues, Environmental Impact.

Project poster design.

Project Budget.

Teaching and Learning Strategy**Assessment Strategy****Repeat Assessment Strategies**

Indicative Coursework and Continuous Assessment:		100 %		
Form	Title	Percent	Week (Indicative)	Learning Outcomes
UNKNOWN	Project Delivery, log book, prototype	65 %	OnGoing	1,2,3,4,5,6
UNKNOWN	Written Report	20 %	Week 23	1,2,3,4,5,6
UNKNOWN	Performance Evaluation Presentation & Poster	5 %	OnGoing	1,2,3,4,5,6
UNKNOWN	Performance Evaluation Demonstratoin	10 %	Week 23	1,2,3,4,5,6

Full Time Delivery Mode Average Weekly Workload:			5.00 Hours		
Type	Description	Location	Hours	Frequency	Weekly Avg
Lecture	Lecture	Tiered Classroom	1	Weekly	1.00
Practical	Laboratory	Computer Laboratory	4	Weekly	4.00

Literary Resources

John Davies, Communication Skills For Engineering and Applied Science Students, 2nd Edition., Prentice Hall [ISBN: 0130882941]
Lecture notes.

Other Resources

Data Sheets associated with the selected electronic devices.
Report template provided by GMIT.

Additional Information

None

Programme Membership

GA_EITWG_S07 201600 Certificate in IT Networking
GA_EINAG_S07 201200 Certificate in Industrial Automation