Module Type		Taught	
Level		5	Credit Value: 10
Programme(s) in which module is available		BEng: Electrical and Electronic Engineering, Communications Engineering, Electronic Engineering & Computer Science BSc Internet Systems	
Involvement of Other Schools		None	
Resource Split		N/A	
Name of Module Co-ordinator		Dr Marc Eberhard	
Related Modules	Pre-requisites	None	
	Co-requisites	None	
	Prohibited Combinations	None	
Minimum and Maximum Intake Sizes		None	

Aims of the Module

- To acquaint students with professional, legal, ethical and social, and environmental issues relating to electrical, electronic and communications engineering and associated disciplines.
- To impart an awareness of external factors that may affect the work of the engineering professional.

Summary of Content

- Engineering as a profession: professional institutions; professional ethics and responsibilities. Standards, best practice. Governmental/ economic/ workplace structures and organisation.
- Legal issues electronic engineering: sources of law; UK civil and criminal law, the courts; the impact of the European Union. Intellectual property rights, copyright, patents, designs, trade marks; hardware and software aspects; jurisdiction; confidentiality. Contracts; licensing; facilities management. Product liability. Employment and health and safety issues. Environmental issues.
- Social aspects of the workplace. The impact of engineering on society. Understanding the responsibilities of the engineer. Appreciation of related social effects and ethical issues. Environmental concerns. Product disposal and sustainability concerns.
- Appreciation of the problems and opportunities associated with the introduction and proliferation of new technologies. Awareness of general and specific issues concerning electronic systems. Understanding of the legal constraints governing the use of electronics technology.
- Risk. Case studies, analysis of problem scenarios.

Summary of Methods and Frequency of Teaching

Lectures: 9 x 2 hours (week 13 to week 21)
Tutorials: 9 x 1 hour (week 13 to week 21)
Further study, practical work (eg problem scenario analysis): 73 hours

Summary of Methods of Assessment and Feedback (including formative feedback)

The module will be assessed by:

Case Study Proposal (Essay)	(25%)	due end week 15
Full Case Study (Essay)	(75%)	due end week 21

Feedback will be provided according to School guidelines. 1-to-1 feedback will be provided orally in presentations and demonstrations, and by email comments on written reports. Generic feedback will be provided orally in class and via Blackboard.

Module Outcomes – what the student should gain from successful completion of the module:	Learning and Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
	Learning and Teaching Methods	Assessment Methods
Knowledge and Understanding of		

• Understanding of the responsibilities of an engineer • Appreciation of related social, ethical, aspects • Realisation of the environmental issues associated with electrical and electronic	Lectures and class discussions	Class discussions and examination
Intellectual Skills • Analyse problems, evaluate and integrate information. • Plan, conduct and report on a programme of work.	Lectures and class discussions	Class discussions and examination
Professional/Subject Specific Skills • Analyse specific problems and deduce possible legal, ethical, and environmental issues	Lectures and class discussions	Class discussions and examination
Transferable Skills The ability to: • communicate effectively both orally and in writing. • carry out self study. • Independent learning skills.	Lectures and class discussions	Class discussions and examination

Introductory Learning Resources	Module information, tutorial material and generic feedback will be available on Blackboard
Core Texts	A.A. Admas & R.J. McCrindle*, Pandora's Box, Social and Professional Issues of the Information Age*, John Wiley & Sons
Reading Lists	

Specification completed by: Date	Geof Carpenter 27.7.09