University of the West of Scotland Module Descriptor

Session: 2024/25

Title of Module: Ethics for the IT Professional

| Code: COMP11001 | SCQF Level: 11 (Scottish Credit and Qualifications Framework) | Credit Points: 10 | ECTS: 5 (European Credit Transfer Scheme) | |
|----------------------|---|-------------------|---|--|
| School: | School of Computing, Engineering and Physical Sciences | | | |
| Module Co-ordinator: | Junkang Feng | | | |

Summary of Module

This module aims to provide students with an awareness of the ethical issues associated with the design, development, distribution and application of software and information and communication technologies (ICT). It also aims to instil an awareness of the responsibilities that an ICT professional should have towards employers, clients, society, his/her professional colleagues, professional associations and the profession itself.

This module should assist students in developing an awareness and understanding of the positive and negative influences that ICT has on various areas within modern day society and will afford them the opportunity to present informed opinion on the impacts of the Information Revolution.

The module provides students the opportunity to identify, analyse and constructively criticise professional, ethical and legal issues in relation to the privacy of personal information and encourage them to suggest steps that can be taken to minimise the level of software and technology failure.

The module will explore topical professional, legal and ethical issues in relation to the business and personal use of the Internet and consider the implications of such.

The module will also discuss the current status of UK legislation that deals directly or indirectly with the use or abuse of ICT.

Academic writing guidelines will be explained and discussed.

This module will work to develop a number of the key 'I am UWS' Graduate Attributes to make those who complete this module:

Universal

- Critical Thinker
- Ethically-minded
- Research-minded

Work Ready

- Problem-Solver
- Effective Communicator
- ['] Knowledgeable

Successful

- Autonomous
- Resilient
 - Transformational

Face-To-Face

Term used to describe the traditional classroom environment where the students and the lecturer meet synchronously in the same room for the whole provision.

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Fully Online

Instruction that is solely delivered by web-based or internet-based technologies. This term is used to describe the previously used terms distance learning and e learning.

Blended

A mode of delivery of a module or a programme that involves online and face-to-face delivery of learning, teaching and assessment activities, student support and feedback. A programme may be considered "blended" if it includes a combination of face-to-face, online and blended modules. If an online programme has any compulsory face-to-face and campus elements it must be described as blended with clearly articulated delivery information to manage student expectations

Campus(es) for Module Delivery

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit)

| Paisley: | Ayr: | Dumfries: | Lanarkshire: | London: | Distance/Online Learning: | Other: |
|----------|------|-----------|--------------|---------|------------------------------|--------|
| ✓ | | | | | ✓ | ✓ |

Learning Outcomes: (maximum of 5 statements)

On successful completion of this module the student will be able to:

- L1. Demonstrate a critical awareness of current issues in a specialist area of professional, legal & ethical issues in IT and IS
- L2. Research a professional, legal or ethical IT-based topic of interest and illustrate findings & conclusions in an appropriate manner

Employability Skills and Personal Development Planning (PDP) Skills

| SCQF Headings | During completion of this module, there will be an opportunity to achieve core |
|---|---|
| ood: Hoddingo | skills in: |
| Knowledge and Understanding (K and U) | SCQF Level 11. Understanding the principal theories and concepts relating to the study of technology related professional, legal and ethical issues Understanding the current UK legislation that relates directly or indirectly to the use or abuse of technology. |
| | use of abuse of technology. |
| Practice: Applied Knowledge and Understanding | SCQF Level 11. Interpreting and explaining professional, legal and ethical concepts. Retrieving, interpreting and manipulating primary and secondary information |
| | from a variety of sources including electronic sources |
| Generic Cognitive skills | SCQF Level 11. Giving reasoned and informed opinions in arguments relating to professional, legal and ethical issues in IT. Bringing together information from a variety of sources, including academic |
| | research publications |
| Communication, ICT and Numeracy Skills | SCQF Level 11. Communicating effectively and appropriately in both speech and writing Making effective use of information retrieval systems and use of information |
| | technology applications to both research and present information in an appropriate form |

| Autonomy, Accountability and Working with others | SCQF Level 11. Identifying and addressing personal learning needs | | | |
|--|---|---------------|--|--|
| | Working effectively in a tutorial team, taking a leadership role where appropriate. | | | |
| | Exercising initiative, self-management and professionalism in the completion of the module coursework | | | |
| Pre-requisites: | Before undertaking this module the student should have undertaken the following: | | | |
| | Module Code: | Module Title: | | |
| | Other: | | | |
| Co-requisites | Module Code: | Module Title: | | |

^{*} Indicates that module descriptor is not published.

Learning and Teaching

This module is delivered by means of a mixture of interactive lectures, tutorials, case studies and on-line resources including Moodle and Yammer that discuss and debate many of the significant current ethical and legal issues that face professionals in IS. It explores the positive and negative impacts that IT has on various areas within organisations and modern day society. A number of other lectures and workshops are designed to explain the requirements of the coursework and give guidance. Guest lectures provide opportunities for further explanation of ideas and advice to improve academic essay writing.

Issues include: Ethics, Cyberethics and the Information Age, informed opinion on the implications of the information revolution on communities, individuals, businesses and society as a whole. The need for Professionalism and the meaning and importance of the term "professionalism" in relation to the development and application of software and other IT-based systems. Legal Issues for IT Practitioners including the legal and ethical issues that software developers should address in the course of their work. Threats and causes of

IT project failure and the steps that can be taken to minimise the level of failure. Green IT. The Privacy and Security of Information including the identification, analysis and constructive criticism of ethical issues in relation to the privacy of personal and corporate information.

Lecture topics:

- 1 Module Overview, Introduction and ethical / philosophical schools of thought. 2 Ethics & the Information Age
- 3 The Need for Professionalism
- 4 Cyberethics
- 5 The Privacy & Security of Information
- 6 Legal Issues for IT Practitioners

| Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below: | (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities) |
|---|--|
| Lecture/Core Content Delivery | 12 |
| Tutorial/Synchronous Support Activity | 10 |
| Independent Study | 78 |
| | 100 Hours Total |

**Indicative Resources: (eg. Core text, journals, internet access)

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Required Resources:

The World Wide Web

Module resources on Moodle

Extension Resources:

Reynolds, George W., Ethics in Information Technology, (5th ed.) (International ed.), Course Technology, 2014

Kizza, Joseph Migga., Ethical and Social Issues in the Information Age, (5th ed.), Springer, 2013

Tavani, Herman, Ethics and Technology: Controversies, Questions, and Strategies for Ethical Computing, (4th ed.), John Wiley & Sons, 2014

Baase, Sara A., Gift of Fire: Social, Legal and Ethical issues for Computing and the Internet, (4th ed.) Pearson

Education, 2012

Lloyd, Ian, Information Technology Law, 2014, 7th Edition, Oxford University Press.

Bynum, T. W. & Rogerson, S. (eds) Computer Ethics and Professional Responsibility: Introductory Text and Readings, Wiley Desktop Edition, 2009

Spinello Richard A., CyberEthics: Morality and Law in Cyberspace, 5th Edition, 2014, Jones and Bartlett Learning.

Bently, Lionel and Sherman, Brad, Intellectual Property Law, 2014, 4th Edition, Oxford University Press.

Susskind, Richard and Daniel, The Future of Professions:how technology will transform the work of human experts, 2015,Oxford University Press.

Hill, Joshua and Marion, Nancy, Introduction to CyberCrime: computer crimes, laws and policing in the 21st century, 2016, Praeger Security International.

(**N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance Requirements

In line with the Academic Engagement and Attendance Procedure, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on Aula, and complete assessments and submit these on time. Please refer to the Academic Engagement and Attendance Procedure at the following link: Academic engagement and attendance procedure

Assessment: (also refer to Assessment Outcomes Grids below)

Assessment will be based on a written coursework essay(approx. 2,250 words) worth 90% of the final mark. Students must submit an interim report (for formative feedback) that defines their choice of essay topic and contains an abstract and set of references. (this is worth 10%)

Supplemental Information

| Programme Board | Computing |
|--------------------------------|------------------------------|
| Assessment Results (Pass/Fail) | No |
| Subject Panel | Business & Deplied Computing |
| Moderator | Tom Caira |
| External Examiner | C Luo |
| Accreditation Details | N/A |
| Version Number | 2.11 |

⁽N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed.

Assessment Outcome Grids (Footnote A.)

| Component 1 | | | | |
|---|-------------------------|-------------------------|---|-----------------------------|
| Assessment Type (Footnote B.) | Learning Outcome (1) | Learning Outcome (2) | Weighting (%) of Assessment Element | Timetabled Contact Hours |
| Essay | ✓ | ✓ | 90 | 0 |
| Demonstrations/ Poster presentations/ Exhibitions | ✓ | ✓ | 10 | 0 |
| Combined Total For All Components | | | 100% | 0 hours |

Footnotes A. Referred to within Assessment Section above B. Identified in the Learning Outcome Section above

Note(s):

- 1. More than one assessment method can be used to assess individual learning outcomes.
- Schools are responsible for determining student contact hours. Please refer to University Policy on contact hours (extract contained within section 10 of the Module Descriptor guidance note). This will normally be variable across Schools, dependent on Programmes &/or Professional requirements.

Equality and Diversity

Nothing in the module should present difficulties for students on the basis of their gender, ethnicity, or sexual orientation. In relation to students with special needs, when a student discloses a disability the individual module tutor, in consultation with the special needs co-ordinator, will agree any appropriate adjustments to be made. Students should note that the language of instruction is English and that they will need to have a reasonable grasp of the language in order to keep abreast of the teaching materials and in submitting assessed work.

UWS Equality and Diversity Policy

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

⁽ii) An **indicative schedule** listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Handbook.)