University College of the Caribbean
Bachelor of Science Degree in Information Technology

Ethical, Legal and Social Issues in Information Technology

Course Title: Ethical, Legal and Social Issues in Information Technology
Course Code: ITT 406
Year: 4
Credits/Duration: 3/ 1 semester
Total Hours: 45
Pre-requisites: None

Rationale
Computer scientists need to practice with a high level of ethics since there are so many grey areas in this field especially as it relates to the use of the Internet.

Course Description
This course examines the ethical, legal, and social responsibilities of the practicing professional IT specialist and will introduce the concepts needed to ensure that students are aware of the accepted practices internationally. Issues addressed include computers and privacy, computer crime, public safety, intellectual property and professional codes of ethics. Key issues will normally be considered through case studies.

General Objectives
At the end of the course students should be able to:

- Review and analyse the effects of computer technology on the society, and to anticipate the impact of that technology on individuals, companies and the wider community.
- Select from the many algorithms for the implementation of computer applications those that will not only satisfy the needs of the economy but also those that will have higher factors of safety, greater sensitivity to user needs, and increased reliability.
- Understand their potential impact on the community that they serve based on the level of ethics practiced in the use of computer technologies and make rational decisions regarding their responsibilities to the community.
- Interpret the social and legal context in which a particular system is being used and deduce its likely impact.
- Develop strategies and policies to address a range of ethical, social, and legal issues arising from developments in computing.
- Distinguish between the various forms of intellectual property (patent, copyright, trademark, and trade secret).
- Evaluate the privacy issues as it relates to information systems and the Internet.
Summary of Course Content

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Course Content

Unit 1: Professional Ethics and Responsibility [9 hours]

Learning Objectives
At the end of this unit students should be able to:

1. Discuss the main ideas in the different theories of ethics
2. Describe how laws relating to computing implement ethical principles
3. Explain how computer and professional ethics differ from ethics in general

Content
- Ethical Theories
- Code of Ethics
- Ethical Guidelines for computer Professionals
- Cases

Unit 2: Privacy and Freedom of Speech in Cyberspace [9 hours]

Learning Objectives
At the end of this unit students should be able to:

1. Define the terms: ‘personal information’ and ‘invisible information gathering’
2. Discuss how the release of someone’s personal information can threaten their safety
3. Describe tools that can be used to protect a person’s privacy on the Web
4. Describe methods parents can use to restrict access by their children to inappropriate material on the Web
5. Explain the reasons for censorship and how it impacts on freedom of speech
6. List reasons people object to Spam
7. Identify methods used to control access to information
8. Discuss the ethical, legal and social issues involved in freedom of speech and privacy in Cyberspace

Content
- The Value of Privacy
- Privacy Risks
  - Government Information Banks
  - Consumer Information
• Medical Records
• Privacy of Consumer Information
  • Databases and Personal Records
  • E-mail Privacy
  • Web Privacy
• Protecting Privacy
• Offensive Speech and Censorship in Cyberspace
• Anonymity
• SPAM

Unit 3: Risk and Responsibility [6 hours]
Learning Objectives
At the end of this unit students should be able to:
1. Discuss the hardware and software risks involved in the use of computers in society
2. Explain how information stored on computers can be kept safe
3. Describe how effective design can impact information technology
4. Evaluate accountability issues in our computerized society
5. Discuss the ethical, legal and social issues regarding the risk and responsibility for public information

Content
• Computer Liability
  a. Malfunction of Computers – hardware and software reliability
  b. Safety
  c. Misinterpretation of information
  d. Liability for defective information
• Evaluation of Safety-Critical Systems
• Values in Design
  a. Software and design problems
  b. Elimination of hardware switch
• Taking responsibility - Accountability in a Computerized Society
• Role and responsibility of Computer Scientists
• Professional responsibility of the computer user

Unit 4: Computer Crime, Security and Protection [9 hours]
Learning Objectives
At the end of this unit students should be able to:
1. Distinguish between the different types of computer crime
2. Explain how computer crime can be prevented or minimized
3. Explain what the computer user can do to protect him/herself
4. Discuss the ethical, legal and social issues involved in computer crime
Content

- Hacking, cracking and crime
- Viruses, Worms, Trojan Horses
- Digital Forgery
- Software Piracy
- Online Scams
- Misuse of resources
- Protective systems
- Reliability and factors of safety

Unit 5: Intellectual Property [6 hours]

Learning Objectives
At the end of this unit students should be able to:
1. Discuss the different technologies that has made copyright infringement easier
2. Explain the factors that can be used in deciding whether a use of copyrighted material is fair
3. Describe technical means of protecting copyright of intellectual property on the Web
4. List benefits of free software
5. Differentiate between copyright and patent
6. Discuss the ethical, legal and social issues involved in intellectual property rights

Content

- Intellectual property and changing technology
- Copyright Law
- Computer Software
  - Intellectual Property Protections for Computer Software
  - Why Software Should be Free
  - Should I Copy My Neighbour’s Software
  - Moral Foundations of Intellectual Property Rights
- Issues for Software Developers
  - Copyright or patent?
  - Similar software products

Unit 6: The Internet [6 hours]

Learning Objectives
At the end of this unit students should be able to:
1. Discuss the inequalities in Internet access
2. Explain how the Internet can help to alleviate social problems
3. Discuss the ethical, legal and social issues involved in internet use

Content

- The National Information Infrastructure
• Bridging the Racial Divide on the Internet
• Alleviating Poverty Through Technology
• Governance of the Internet: By Whom? And How?
• Who Governs the Internet?

Teaching Strategies
Lectures/Discussions
Class Studies
Group Activities
Case Studies
Handouts

Student Assessment
Course work will include individual projects and team projects using case studies of real world situations (30%). A mid-term exam valuing 10% will also be included. Projects must be presented in class using presentation aids so that students can acquire the experience necessary for the working environment.

  - Course work - 40%
    - Mid-module Exam – 20%
    - Group work & individual Project totalling - 20%
  - Final exam – 60%

Learning Resources
Books,
magazines,
periodicals,
handouts,
Internet

Bibliography

Recommended Text:

Reference: