

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
KATHMANDU UNIVERSITY**

Subject: Information System Ethics
Credit: 3
Type: Core

Course Code: COMP 343
F.M: 100

Course Description:

Information Systems raise new ethical questions because they create opportunities for intense social change, threaten existing distributions of power, money, rights and obligations as well as offer plenty of space for new crime. This course introduces the students with the legal, ethical and societal issues associated with Information Technology.

Course *Objectives*:

1. To understand the legal, ethical and social issues raised by information systems
2. To understand the challenges posed by contemporary information systems technology and the Internet to the protection of individual privacy and intellectual property
3. To understand the implications of Information systems in our everyday life

Prerequisites:

None.

EVALUATION:

Internal: 50

External: 50

Contents:

Unit 1 – An Overview of Ethics [4 hrs]

- 1.1. Definition of Ethics
- 1.2. The Importance of Integrity
- 1.3. The Difference between Morals, Ethics, and Laws
- 1.4. Ethics in the Business World
- 1.5. Including Ethical Considerations in Decision Making
- 1.6. Ethics in Information Technology

Unit 2 – Ethics for IT Workers and IT Users [6 hrs]

- 2.1. IT Professionals
- 2.2. Managing Professional Relationships
- 2.3. Professional Code of Ethics
- 2.4. Professional Organizations
- 2.5. Certification
- 2.6. Government Licensing
- 2.7. IT Professional Malpractices
- 2.8. IT Users
 - 2.8.1. Common Ethical Issues for IT Users
 - 2.8.2. Supporting the Ethical Practices of IT Users
 - 2.8.3. Compliance

Unit 3 – Computer and Internet Crime [5 hrs]

- 3.1. IT Security Incidents
- 3.2. Types of Exploits
- 3.3. Types of Perpetrators
- 3.4. Implementing Trustworthy Computing
- 3.5. Risk Assessment
- 3.6. Establishing a Security Policy
- 3.7. Educating Employees and Contract Workers
 - 3.7.1. Prevention
 - 3.7.2. Detection
 - 3.7.3. Response

Unit 4 – Privacy [5 hrs]

- 4.1. Privacy, Protection and the Law
- 4.2. Information Privacy
- 4.3. Privacy, Laws, Applications, and Court Rulings
- 4.4. General Data Protection Regulation (GDPR)
- 4.5. Nepal Cyber Security Policy
- 4.6. Key Privacy and Anonymity Issues
- 4.7. Privacy and biases in Artificial Intelligence/Machine Learning
- 4.8. Differential Privacy
- 4.9. Data Breaches
- 4.10. Electronic Discovery
- 4.11. Consumer Profiling
- 4.12 Workplace Monitoring
- 4.13. Advanced Surveillance Technology

Unit 5 – Intellectual Property [6 hrs]

- 5.1. Definition of Intellectual Property
- 5.2. Copyrights
- 5.3. Patents
- 5.4. Trade Secrets
- 5.5. Key Intellectual Property Issues

- 5.5.1. Plagiarism
- 5.5.2. Reverse Engineering
- 5.5.3. Open Source Code
- 5.5.4. Competitive Intelligence
- 5.5.5. Trademark Infringement
- 5.5.6. Cybersquatting

Unit 6 – Freedom of Expression [3 hrs]

- 6.1. Freedom of Expression: Key Issues
- 6.2. Controlling Access to Information on the Internet
- 6.3. Strategic Lawsuit against Public Participation
- 6.4. Anonymity on the Internet
- 6.5. Hate Speech
- 6.6. Pornography

Unit 7 – Social Networking [5 hrs]

- 7.1. Social Networking Web Site
- 7.2. Business Applications of Online Social Networking
- 7.3. Social Networking Ethical Issues
- 7.4. Cyberbullying
- 7.5. Cyberstalking
- 7.6. Encounters with Sexual Predators
- 7.7. Uploading of Inappropriate Material
- 7.8. Online Virtual Worlds
- 7.9. Crime in Virtual Worlds
- 8.0. Educational and Business Uses of Virtual Worlds

Unit 8 - Ethics of IT Organizations [5 hrs]

- 8.1. Key Ethical Issues for Organizations
- 8.2. Contingent Workers
- 8.3. Outsourcing
- 8.4. Offshore Outsourcing
 - 8.4.1. Pros and Cons of Offshore Outsourcing
 - 8.4.2. Strategies for Successful Offshore Outsourcing
- 8.5. Whistle-Blowing
 - 8.5.1. Protection for Whistle-Blowers
 - 8.5.2. Whistle-Blowing Protection for Private-Sector Workers
 - 8.5.3. Dealing with a Whistle-Blowing Situation
- 8.6. Green Computing
- 8.7. ICT Industry Code of Conduct

Unit 9 – Case Studies in Information Technology Ethics [6 hrs]

Text Books:

1. Ethics in Information Technology, Fifth edition by George W. Reynolds.
2. Management Information Systems - Managing the Digital Firm, Twelfth edition by Kenneth C. Laudon and Jane P. Laudon.
3. The Handbook of Information and Computer Ethics, Wiley, 2008.