

Course Outline (Social and Professional Issues in IT)

Unit 1 (3hrs)

History of computing

Important dates and important contributions only

- ❖ History of hardware should take into consideration only those hardware and those major developments that have contributed in significant way.
- ❖ History of s/w should consider
 - A brief introduction to development of programming languages.
 - A brief introduction to history of operating system.
- ❖ History of network
 - This should start with first network implementation and changes till date.
- ❖ Pioneers of computing
 - Only significant pioneers should be studied.
- ❖ A small historical background of microsoft and sun micro system should be studied

Unit 2 (6)hrs

- ❖ Social content of computing
 - What is society ?
 - What are different elements of society ?
 - Impact of computing on society
 - Impact of computing on employment.
- ❖ Network communication (growth, access and control)
 - Stress on internet and its implication
- ❖ International issues (related to computing/network)
 - Only introduction to issues
 - Only introductory related cases. (Why internet is restricted in some countries ?)

Unit 3 Methods and tools of analysis (4hrs)

- What is ethics / code of ethics (IEEE/AIAC)
- Implications and characteristics of ethical decisions
- Principles of ethical decision making
- Some case studies on ethics

Case: Intel Pentium Chip
regulator p. 24-25

* Degejail
check PPA

computer ethics - utilitarianism
Engineering Ethics

Unit 4 Professional and ethical responsibilities (6hrs)

- What is profession ?
- Characteristic/Nature of professionalism
- Factors affecting moral of professions
- Code of ethics for computing (IEEE, ACM)
- Registration procedure
- Disciplinary action
- Whistle blowing (Challenger shuttle case)
- Dealing with harassment and discrimination
 - Gender related issues

Computer Ethics

Unit 5 Risk and liabilities of computer based system (5hrs)

- What is a software risk ?
- Implication of software complexity
- Effects of software risk
- Risk assessment and management
- What is liability
 - Contract liability
 - Tort liability
- Definition to Tort, negligence, fitness for purpose, reasonable skill, care, vicarious liability
- Therac- 25 case.

Unit 6 Intellectual property (6hrs)

- What are intellectual properties ?
- Open source code
- Copyright
- Trade mark
- Trade secrets
- Patents
 - Nepal law for copy right
 - Introduction to international law
- Copy right acts
 - Definition
 - Procedure
 - Time duration
 - Dispute resolution

Unit 7 Primary and civil liberties (5hrs)

- What is privacy ?
- What are civil liberties ?
- What is privacy protection ?
- Freedom of expression
 - Cyberspace

Comparison should consider only nepalese and american context. (International and case studies intercultural implications)

Question Format

Unit 1	8	Marks allocation :- 8x10+20
Unit 2	16	Time allocation:-2:15 hrs (10 min. answerable)
Unit 3	8	
Unit 4	16	
Unit 5	16	
Unit 6	8	
Unit 7	8	

Case study (20) (Analytical based)

Legal basis

Ethical basis (45 min.)

Code of ethics

For Practical Purpose each group should present A topic as directed by lecturer.