

Faculty of Computers and Information Technology

Computer and Society

Information :

Course Code : CS466

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Faculty of Computers and Information Technology

Area Of Study :

Apply the basic concepts and issues of computer system security.
 Use basic fundamentals to learn how to protect different computer system components (Hardware and Software) from different risks of failure and/or loss.
 Understand knowledge that enhances skills in the intellectual property rights, the ethical responsibilities of professionals in computing field.
 Compare, evaluate and select methodologies from range of techniques to enforce information privacy and information protection in computer networks.
 Use effectively communication skills.

Description :

Social context of computing, methods and tools of analysis of ethical argument, professional and ethical responsibilities, risks and liabilities of safety-critical systems, intellectual property, privacy and civil liberties, social implications of the Internet, computer crime, philosophical foundations of ethics.

Course outcomes :

a.Knowledge and Understanding: :

1 -	Describe fundamental concepts and theories of computer security.
2 -	Describe the essential software piracy and information privacy.
3 -	Describe technical, moral and ethical computer issues involved in the computing and information industry.

b.Intellectual Skills: :

1 -	Analyze and design and solutions for data and information security.
2 -	Prepare presentations for information privacy, databases, electronic profiling, spam, and other marketing activities.
3 -	Relate professional, moral, legal and ethical computer issues to computing and information.

c.Professional and Practical Skills: :

1 -	Show the most computer security aspects such as hardware loss, damage, and system failure.
2 -	Use the principles of information privacy in different computing systems.
3 -	Acquire a set of fundamental research skills from different resources of computers and society.

d.General and Transferable Skills: :

1 -	Work on a team for the development of a requirements document.
2 -	Apply communications skills in presentation and report writing of computer security and ethics.

ABET Course outcomes :

1 -	Apply the basic techniques and safeguards for securing computer systems.
2 -	Use basic fundamentals to learn how to protect different computer system components (Hardware and Software) from different risks of failure and/or loss.
3 -	Understand knowledge that enhances awareness of intellectual property rights, professional ethical responsibilities in computing field.
4 -	Compare, evaluate and select methodologies and techniques to enforce information privacy and information protection in computer networks. Communicate effectively.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction to Computer Security: Why be concerned about computer security.	4	2	2
Introduction to Computer Security: Hardware loss, damage, and system failure.	4	2	2
Software Piracy: Software piracy and digital counterfeiting, software piracy, digital counterfeiting.	4	2	2
Software Piracy: Protecting against software piracy and digital counterfeiting, education, holograms, and other antipiracy tools, digital counterfeiting prevention.	4	2	2
Information Privacy: Why be concerned, about information privacy, databases, electronic profiling, spam, and other marketing activities, electronic surveillance and monitoring, computer security and privacy legislation.	4	2	2
Computer Ethics: Ethics, computer ethics, business (professional) ethics, ethical use of copyrighted material (books, music, movies).	4	2	2
Computer Ethics: Ethical use of resources and information, ethical use of school or company resources, code of ethics, ethical use of employee and customer information, cheating and falsifying information.	4	2	2
Intellectual Property: Intellectual property, rights, copyrights, trademarks, patents.	4	2	2
Mid-Term Exam	2		
Data and Information Security: Database security issues, threats, computer-based counter measures, procedural counter measures.	4	2	2
Computer Networks Security	4	2	2
Computers and Health	4	2	2
Research Presentations	4	2	2
Final Exam	2		

Teaching And Learning Methodologies :

Interactive Lectures including Discussions
Tutorials
Self-Study (Project / Reading Materials / Online Material / Presentations)
Case Studies

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments	10.00	4	
Final Exam	40.00	14	
Midterm Exam (s)	20.00	9	
Others (Participations)	10.00		
Quizzes	20.00	5	

Course Notes :

An Electronic form of the Course Notes and all the slides of the Lectures is available on the Students Learning Management System (Moodle)

Recommended books :

L. Kaczmarczyk, Computers and Society: Computing for Good, CRC Press, last edition. ISBN: 978-1439810880.