



# COMSATS University Islamabad

## Department of Computer Science

### Course Description Form (CDF)

#### Course Information

Course Code: **CSC210**

Credit Hours: **3(3,0)**

Lab Hours/Week: **0**

Course Title: **Professional Practices**

Lecture Hours/Week: **3**

Pre-Requisites: **None**

#### Course Objectives

- To develop an understanding of the basic cultural, social, legal, and ethical issues inherent in the discipline of Computing;
- To highlight the use and significance of professional ethics;
- To discuss intellectual property and privacy rights;
- To professionally communicate and evaluate formal documents;
- To explain the consequences of computing on individuals, organizations, and society.

#### Course Contents

This course covers the following topics: Introduction to Ethics; Social Implications of Computing & Networked Communications; Intellectual Property; Information Privacy; Privacy & the Government; Computer & Network Security; Computer Reliability; Professional Ethics; and Work & Wealth.

#### Unit wise Major Topics:

Unit	Topic	No of teaching hours
1.	Introduction to Ethics: Subjective & Cultural Relativism, Divine Command Theory, Ethical Egoism, Act Utilitarianism, Rule Utilitarianism, Social Contract Theory, Comparing Workable Ethical Theories, and Morality of Breaking the Law, and Case Study.	6
2.	Social Implications of Computing & Networked Communications: Impact of Social Media on Individualism, Collectivism & Culture, Censorship, Freedom of Expression, Children & Inappropriate Content, and Case Study.	4.5
3.	Intellectual Property: Protecting intellectual, Fair Use, New Restrictions on Use, Peer to Peer Networks, Protections for Software, Open-Source Software, Legitimacy of Intellectual Property Protection for Software, Creative Commons, and Case Study.	7.5
4.	Information Privacy: Perspectives on Privacy, Information Disclosures, Data Mining, and Case Study.	6
5.	Privacy & the Government: Pakistan's Prevention of Electronic Crime Bill Act 2016; Legislation Authorizing Wiretapping, Regulation of Public & Private Databases, Data Mining by the Government, Information Dissemination, and Case Study.	4.5
6.	Ethical Evaluation of: Hacking, Malware, Cyber Crime & Attacks, Online Voting, and Case Study.	4.5
7.	Computer Reliability: Data-Entry or Data-Retrieval Errors, Software and Billing Errors, Notable Software System Failures, Therac-25,	4.5

	Computer Simulations, Software Engineering, Software Warranties, and Case Study.			
8.	Professional Ethics: Are Computer Experts Professionals? Software Engineering Code of Ethics, Analysis of the Code, Case Studies, and Whistleblowing, Case Study.		4.5	
9.	Work and Wealth: Automation & Unemployment, Work Place Changes, Globalization, and The Digital Divide, Case Study.		3	
Total Contact Hours			45	
Mapping of CLOs and GAs				
Sr.#	Unit #	Course Learning Outcomes	Blooms Taxonomy Learning Level	GA
CLO-1	1	Examine the different theories of ethical decision making.	Understanding	8
CLO-2	2-3	Discuss intellectual property rights for open source software.	Understanding	2,8
CLO-3	4-5	Investigate the impact of technological solutions to privacy issues in the changing world.	Analyzing	2,8
CLO-4	1-9	Identify ethical issues by examining various case studies from ICT.	Analyzing	2,8-10
CLO Assessment Mechanism				
Assessment Tools	CLO-1	CLO-2	CLO-3	CLO-4
Quizzes	Quiz 1	Quiz 2	Quiz 3	Quiz 4
Assignments	Assignment 1	Assignment 2	Assignment 3	Assignment 4
Mid Term Exam	Mid Term Exam	Mid Term Exam	Mid Term Exam	-
Final Term Exam	Final Term Exam			
Text and Reference Books				
Text Books:				
1. Ethics for the Information Age, Quinn, M.J., 5 <sup>th</sup> Edition, Pearson Education, 2016.				
2. Ethical and Social Issues in Information Age, Kizza J. M., 5 <sup>th</sup> Edition, Springer-Verlag, 2017.				
Reference Books:				
1. Ethics in Information Technology, Reynolds, G., Cengage Course Technology, 2018.				
2. A Gift of Fire, Social, Legal, and Ethical Issues for Computing Technology, Baase, S., Pearson Inc, 2017.				