SIR SYED UNIVERSITY OF ENGINEERING & TECHNOLOGY
SOFTWARE ENGINEERING DEPARTMENT

COURSE INFORMATION SHEET

Session:	Spring 2024
Course Title:	**Computing Professional Practice**
Course Code:	HS – 412
Credit Hours:	3
Semester:	8th
Pre-Requisites:	**No**
Instructor Name:	Syed Shahrukh Haider, Umaira Shahid, Maira Fatima
Email and Contact Information:	shahrukhh@ssuet.edu.pk, ushahid@ssuet.edu.pk, smaria@ssuet.edu.pk
WhatsApp Group	CPP SPRING 2024
Office Hours:	8:30 AM – 5:30 PM
Mode of Teaching:	**Synchronous**

COURSE OBJECTIVE:
The aim of this course is to give foundation to students, which is required to make an appropriate decision in their professional lives with difficult situations involving (ethical issues, violation of professional code of practices, legal issues, privacy boundaries, and cyber and workplace crimes) and think through the implications of possible solutions to ethical conflicts.

COURSE OUTLINE:
Computing Profession, Computing Ethics and Philosophy of Ethics. The Structure of Organizations, Finance and Accounting, Anatomy of a Software House, Computer Contracts, Intellectual Property Rights, The Framework of Employee Relations Law and Changing Management Practices, Human Resource Management and IT, Health and Safety at Work, Software Liability, Liability and Practice, Computer Misuse, Cybercrime Law, Regulation and Control of Personal Information. Overview of the British Computer Society Code of Conduct, IEEE Code of Ethics, ACM Code of Ethics and Professional Conduct, ACM/IEEE Software Engineering Code of Ethics and Professional Practice. Accountability and Auditing, Social Application of Ethics.

COURSE LEARNING OUTCOMES (CLOs) and its mapping with Program Learning Outcomes (PLOs):

CLO No.	Course Learning Outcomes (CLOs)	PLOs	Bloom's Taxonomy
1	**Discuss** the social ethics and its consequence that benefits the engineer & society.	PLO_8 (Computing Professionalism & Society)	C1 (Remembering)
2	**Analyze** the ethical dilemmas arising at workplace; identify possible actions that can be taken in response to a given ethical dilemma and illustrate the probable consequences of these actions.	PLO_9 (Ethic)	C4 (Analyzing)

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3	**Explain** how to act and behave with their engineering catastrophe caused by not conforming to the code of ethics, report the flaws and give recommendations.	PLO_10 (Lifelong Learning)	C5 (Evaluating)

COMPLEX ENGINEERING PROBLEM:

Complex Engineering Problem Details	Included: Yes Nature and details of Complex Engineering Problem (CEP): It will be given in Assignment # 03. CEP will be based on CLO-2"Demonstrate simple algorithms and **analyze** their time and space complexities." **Attributes could be: WP1, WK3, WA2** WP1: Depth of knowledge required WA2: Problem Analysis WK8: Research Literature Assessment in: Assignment # 03

RELATIONSHIP BETWEEN ASSESSMENT TOOLS AND CLOs:

Assessment Tools	CLO-1 (31)	CLO-2 (31)	CLO-3 (38)
Quizzes	12.5% (3)	10.71 % (3)	8.33%(4)
Assignments	12.5% (3)	10.71% (3)	8.33%(4)
Midterm Exam	62.5% (15)	53.5 % (15)	
Final Exam	41.66% (10)	35.71%(10)	62.5% (30)

GRADING POLICY:

Assessment Tools	Percentage
Quizzes	10%
Assignments	10%
Midterm Exam	30%
Final Exam	50%
TOTAL	100%

Recommended Book:

- *Professional Issues in Software Engineering* by Frank Bott, Allison Coleman, Jack Eaton and Diane Rowland, CRC Press; 3rd Edition. ISBN-10: 0748409513. [Download Professional issues in software engineering PDF by Frank Bott (pdfdrive.to)](#)

- ***A Gift of Fire: Social, Legal, and Ethical Issues for Computing and the Internet*** (3rd Edition) by Sara Baase, Prentice Hall; 3rd Edition (2008). ISBN-10: 0136008488. **https://www.philadelphia.edu.jo/academics/lalqoran/uploads/A-Gift-of-Fire-4thEd-2012.pdf**

Reference Books:

- ***Applied Professional Ethics*** by Gregory R. Beabout, University Press of America (1993).ISBN-10: 0819193747.

  [Download Applied Professional Ethics: A Developmental Approach for Use with Case Studies PDF by Beabout; Beabout (pdfdrive.to)](#)

- ***Computer Ethics*** by Deborah G. Johnson, Pearson; 4th Edition (January 3, 2009).ISBN-10: 0131112414.

- ***Introduction to Engineering Ethics***, By Mike Martin and Roland Schinzinger, Edition: 2nd, Publisher: McGraw-Hill Science/Engineering/Math, ISBN-13:978-0072483116, Year of Publication: 2009.

- ***Ethics for the Information Age***, By: Michael J. Quinn, 6th Edition, Publisher: Addision Wesely, ISBN: 978- 0-13-285553-2, Year of Publication: 2014

SIR SYED UNIVERSITY OF ENGINEERING & TECHNOLOGY
TELECOMMUNICATION ENGINEERING DEPARTMENT

LECTURE PLAN

Course Title: Computing Professional Practice
Course Code: HS-412

Week No.	Week Dates	Topics	Required Reading	Key Date
1	11-03-2024 to 15-03-2024	**The Profession** • Introduction to Professionalism • Traits of a Professional	Frank - Chap 1: Pg. 1 – 6 Pg 7-8	
2	17-03-2024 to 22-03-2024	• Applying Professionalism in Daily Life **Philosophy of Ethics & code of ethics** • Introduction • IEEE Code of Ethics • ACM Code of Ethics • Different Scenarios	Frank - Chap 1: Pg. 9 – 13 Pg 19-31	
3	24-03-2024 to 29-03-2024	**The Structure of Organizations** • Introduction • Legal forms of organization companies • Types of Organizations • Management of an organization	Frank - Chap 2: Pg. 39 – 47 Pg. 48 – 56	
4	31-03-2024 to 05-04-2024	**Anatomy of Software House** • Introduction • The Company (Software House) • Structure of Company • Management of Staff • Producing the budget • Monitoring Financial Performance • Long term Planning	Frank - Chap 4: Pg. 100 – 108 Pg. 109-114	Assignment # 1
5	07-04-2024 to 12-04-2024	**Organizational Financial Practices** • Introduction • Need of Capital • Sources of Funds	Frank - Chap 3: Pg. 60 – 64 Pg. 65 – 69 Pg. 78 – 80	

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		• Budgeting and Monitoring • Working Capital & Cash Flow		
6	14-04-2024 to 19-04-2024	**Human Resource Management** • Introduction • A model of Human Resource Management • Health and Safety Act 1974 • Training and Human Resource Management • Health and Safety at Work	Frank - Chap 8: Pg. 211 – 213 Pg. 214 – 215 Pg. 224 – 225 Pg. 235 – 236	Quiz # 1
7	21-04-2024 to 26-04-2024	**Intellectual Property Rights** • Introduction • Confidential Information • Patents	Frank - Chap 6: Pg. 137,180,148	Assignment # 2
8	28-04-2024 to 03-05-2024	• Copyright • Acts permitted in relation to copyright Remedies for breach of Copyright and Plagiarism		
9		**Midterm Examination** **(05-05-2024 to 10-05-2024)**		
10	12-05-2024 to 17-05-2024	**Computer Contracts** • Introduction • Computer Contracts for supply of Custom-built Software • Other Types of Software Services Contract	Frank - Chap 5: Pg. 117,119,129	
11	19-05-2024 to 24-05-2024	**Introduction to Software Safety: Liability and Practice** • Regulatory Issues • Legal Liability • Factors affecting system safety	Frank - Chap 10: Pg. 262-264 Pg. 281 Frank - Chap 11: Pg. 299	Assignment # 2

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		Computer Misuse & Criminal Law • Introduction • Categories of misuse • Computer Fraud • Obtaining unauthorized access to a computer.		
12	26-05-2024 to 31-05-2024	**Regulation and control of personal information: data protection, defamation and related issues** • The impact of the Internet • Factors affecting the regulation of data processing • Convergence of Data Protection Practices	Frank - Chap 12: Pg. 316 Pg.321 Pg.322-324	Quiz # 2
13	02-06-2024 to 07-06-2024	**Introduction to hacking** • Who is hacker? • Types of hacking • Website Hacking • Net Hacking • Password Hacking • Software Hacking • Ethical Hacking • Tools of Hacking • Penetration-Testing Methodologies • Hackers Code of Conduct	Sara –chap 5: Pg 254-261 Pg 262-269 Pg 270-273	
14	09-06-2024 to 14-06-2024	New Code of Ethics (90s) - Steven Mizrach : **Information Security Practices** • Introduction • The CIA: Information Security Principles • Information Security Organizational Structure • Information Classification	Sara –chap 5: Pg 274-275 Sara-Chap 7: pg.252 Sara-Chap7: pg.254	Assignment # 3

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15	16-06-2024 to 21-06-2024	**Risk Management** • Introduction • Overview of Risk management • Risk identification • Risk assessment • Risk control strategies **Social Networking & Ethics** • Introduction • The Good, Bad & the Ugly • How to Protect yourself • How to protect your children	Sara-Chap 9: pg. 297 Sara-Chap 9: pg.303 Fec-Chap 9: Pg.307 Tan-Chap 9: Pg.309	Quiz # 3
16	23-06-2024 to 28-06-2024	**Moral, Social and Ethical issues associated with Internet** • Introduction • Moral Issues • Ethical Issues • Advantages and Disadvantages of Internet • Owner Ship of the internet	Sara-Chap13: pg.375 Sara-Chap8: pg.380	
		Final Examination **(31-06-2024 to 11-06-2024)**		