Course Specification
— (Bachelor)

Course Title: Computer & Professional Ethics

Course Code: COMP-591

Program: Bachelor in Computer Science

Department: Computer Science

College: College of Engineering and Computer Science

Institution: Jazan University

Version: V1

Last Revision Date: 18 August 2024

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A. General information about the course:

1. Course Identification

1. Credit hours: (03)

2. Course type

A.	□University	□College	☒ Department	□Track	□Others
B.	☒ Required			□Elective	

3. Level/year at which this course is offered: (Level 06 / Year 03)

4. Course General Description:

The course intends to cover the computer crime (viruses, worms, Trojan horses, hacking) and the ways to implementing computer ethics (computer professionals and social responsibility). Also the software copyright, piracy, privacy, security, and civil liberties and some selected topics such: Philosophical Foundations of Ethics, Ethics, Ethical Dissent and Whistle-blowing. Monopolies and their Economic, Social and Ethical Implications. This course provides a general overview of the social and ethical issues in computing. Students will learn about the impacts on and implications of the development, management and use of technology in various aspects. Emphasis is given to the issues which are relevant to the field of Information System.

5. Pre-requirements for this course (if any):

Nil

6. Pre-requirements for this course (if any):

Nil

7. Course Main Objective(s):

- ✓ Appreciate the importance of ethics in computing through critically reflecting on major issues in computer ethics such as privacy, intellectual property and gender issues.

- ✓ Understand the concept of different ethical theories and their impact on ethical analysis among these various techniques.

✓ Apply and implement learned algorithm design techniques and data structures to solve problems.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning (Self-Learning)		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	-
3.	**Field**	--
4.	**Tutorial**	--
5.	**Others (specify)**	4
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	**Explain** and apply the basics of ethics for the field of computing.	K1	• Lectures/Presentations Media Lectures	• Mid-Term Exam • Assignment- 1 Final Theory Exam
1.2	**Identify** ethical issues related to privacy, security, intellectual property, gender	K2	• Lectures/Presentations Media Lectures	• Mid-Term Exam • Assignment- 2 Final Theory Exam

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.0	**Skills**			
2.1	**Define** managerial and decision-making with regards to computer ethical issues.	S2	• Lectures /Presentations • Media Lectures Tutorials	• Assignment - 1 • Assignment – 2 Final Theory Exam
2.2	**Develop** some of the ethical theories to analyse ethical cases.	S2	• Lectures /Presentations • Media Lectures Tutorials	• Assignment - 1 • Assignment – 2 Final Theory Exam
2.3	**Analyze** ethical situations and suggest technological, organizational and societal solutions	S1	• Lectures /Presentations • Media Lectures Tutorials	• Assignment -1 Final Theory Exam Case Study
3.0	**Values, autonomy, and responsibility**			
3.1	**Demonstrate** the ability to work in a group to become familiar with professional and ethical responsibilities.	V2	Group Discussion	Assignment – 2 (Group Assignment), Case Study

C. Course Content

No	List of Topics	Contact Hours
1.	**Overview** Introduction, Definition of Computer Ethics, three properties that make computers a special case:, Invisibility factor, Identifying an ethical issue, Ethical theories, Identifying an ethical issue, Discussion of the theories, Professional codes of conduct, An ethical dilemma, A framework for ethical decision making.	4T
2.	**Computer hacking** Introduction, Definitions of hacking, Why do hackers hack? Destructive programs, Trojan horses, Worms, Time bombs and logic bombs, Denial-of-service, Hacker ethics, Hackers as public watchdogs, Hackers as security consultants, Legal constraints: the Computer Misuse Act, 1990, Jurisdiction of the Act, Professional constraints: BCS Code of Conduct, To hack or not to hack? Ethical positions on hacking, An ethical dilemma	5T
3.	**Aspects of computer crime** Introduction, What is computer crime?, Legal constraints: the Computer Misuse Act, 1990, Types of computer crime, Unauthorised access, Theft of goods, information or money, Theft of computer time, Computer fraud, Corporate espionage, Identity theft, Forgery and piracy, Harassment and	4T

	sexually related material, Computer criminals, Combating computer crime: the Hi-Tech Crime Unit and the Serious Organised Crime Agency, Computer security measures, Password, Encryption, Access control software, Firewalls, Biometric, Audit control software, Anti-Virus software, Management issues, The Computer Misuse Act, 1990, Professional duties and obligations, An ethical dilemma.	
4.	**Intellectual property rights** Introduction, The nature of intellectual property, Computing technology and intellectual property, Intellectual property legislation, Copyright and copyright protection, The Copyright Licensing Agency (CLA), Federation Against Software Theft (FAST), Patents and patent protection , Trademarks and trademark protection, The Digital Millennium Copyright Act, Fair use provision, The extent and nature of software piracy, Copying software: the case against, Copying software: the case for, Digital music: from Napster to KaZaA, Ethical and professional issues , Free software and open source code, An ethical dilemma	4T
5.	**Personal privacy and computer technologies** Introduction, Valuing privacy, The impact of computer technology, Internet technologies and privacy, Cookies, Spam, Enrryption, RFID, Privacy legislation, Upholding the notion of privacy, Protecting privacy rights, Serving the interests of the state, The Data Protection Act, 1998,, Rights, and restrictions of rights, of the data subject, Restrictions of access, The Data Protection Act: a good idea – but is it good enough?, Professional and ethical issues, The threat to privacy, An ethical dilemma	4T
6.	**Computer technologies: accessibility issues** Introduction, Principle of equal access, Obstacles to access for individuals, Legislation, Enabling the disabled, Enabling technology, The broader consequences of equal access, Professional responsibility , An ethical dilemma	3T
7	**Empowering computers in the workplace** Introduction, Computers and employment, Psychological effects, Health and safety hazards, Computerised monitoring in the workplace, Arguments against monitoring in the workplace, Ethical and legal issues, Telecommuting, The benefits of telecommuting, The drawbacks of telecommuting, An ethical dilemma	4T
Total		**26T + 26P**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm Exam	7th-8th week	15%

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
2.	Assignment I	9th week	10%
3.	Assignment II (Case Study/ Group assignment)	12th week	15%
4.	Lab Exam	14th Week	20%
5.	Final Theory Exam	15th Week	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	* Duqueenoy, P, Jones, S, and Biundell` Ethical, Legal and Professional Issues in Computing",Pearson ,2008 ISBN 978-1-84480-749-9
Supportive References	Ethics for the Information Age, 2/E Michael J. Quinn, ISBN,10: 0321375262 ISBN,13: 9780321375261 Publisher: Addison, Wesley Copyright: 2015 Computers, Ethics, and Society, Second & Third editions, /David Ermann et al., Oxford University Press, QA76.9 .C66 C6575
Electronic Materials	https:// www.eccouncil.org
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	• Classroom equipped with projector, whiteboard, and sufficient seating arrangements. • Lab with software installed and an individual computer terminal for each student.
Technology equipment (projector, smart board, software)	• Whiteboards and projectors for classroom and labs Following software for lab work: • Kali Linux
Other equipment (depending on the nature of the specialty)	**None**

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect (Course evaluation survey form)

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of Students assessment	CRC / QAU / HoD	Direct (Course reports/result analysis)
Quality of learning resources	Track leaders / CRC	Indirect (Review, meetings, and star rating with suggestions for further modification and improvements)
The extent to which CLOs have been achieved	CRC / QAU	Direct (CLO assessment template further verified at course coordinator, Track leader and QAU level)
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	DEPARTMENT COUNCIL
REFERENCE NO.	
DATE	18/08/2024