

Learning Outcomes

LO	Description
LO1a	LO1a. Software engineering - DESCRIBE key concepts, advantages limits of approaches, and current advances in Software Engineering
LO1b	LO1b. Algorithms and data structures - DESCRIBE key concepts, advantages limits of approaches, and current advances in Algorithms and data structures
LO1c	LO1c. Systems software - DESCRIBE key concepts, advantages limits of approaches, and current advances in Systems software
LO1d	LO1d. Computer elements and architectures - DESCRIBE key concepts, advantages limits of approaches, and current advances in Computer elements and architectures
LO1e	LO1e. Theoretical foundations of computing - DESCRIBE key concepts, advantages limits of approaches, and current advances in Theoretical foundations of computing
LO1f	LO1f. Discrete structures - DESCRIBE key concepts, advantages limits of approaches, and current advances in Discrete structures
LO1g	LO1g. Probability and statistics - DESCRIBE key concepts, advantages limits of approaches, and current advances in Probability and statistics
LO1h	LO1h. Security - DESCRIBE key concepts, advantages limits of approaches, and current advances in Security
LO1i	LO1i. Information management including database - DESCRIBE key concepts, advantages limits of approaches, and current advances in Information management including database
LO1j	LO1j. Intelligent systems - DESCRIBE key concepts, advantages limits of approaches, and current advances in Intelligent systems (includes artificial intelligence, machine learning)
LO1k	LO1k. Networking, communications, and distributed computing - DESCRIBE key concepts, advantages limits of approaches, and current advances in Networking, communications, and distributed computing
LO1l	LO1l. Operating systems - DESCRIBE key concepts, advantages limits of approaches, and current advances in Operating systems
LO1m	LO1m. Programming languages - DESCRIBE key concepts, advantages limits of approaches, and current advances in Programming languages

LO1n	LO1n. Software development fundamentals - DESCRIBE key concepts, advantages limits of approaches, and current advances in Software development fundamentals
LO1o	LO1o. Graphics and visual computing - DESCRIBE key concepts, advantages limits of approaches, and current advances in Graphics and visual computing
LO1p	LO1p. Human-computer interaction - DESCRIBE key concepts, advantages limits of approaches, and current advances in Human-computer interaction
LO1q	LO1q. Platform-based development - DESCRIBE key concepts, advantages limits of approaches, and current advances in Platform-based development
LO2a	LO2a. Software Engineering - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Software Engineering
LO2b	LO2b. Algorithms and data structures - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Algorithms and data structures
LO2c	LO2c. Systems software - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Systems software
LO2d	LO2d. Computer elements and architectures - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Computer elements and architectures
LO2e	LO2e. Theoretical foundations of computing - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Theoretical foundations of computing
LO2f	LO2f. Discrete structures - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Discrete structures
LO2g	LO2g. Probability and statistics - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Probability and statistics
LO2h	LO2h. Security - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Security
LO2i	LO2i. Information management including database systems - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Information management including database systems
LO2j	LO2j. Intelligent systems - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Intelligent systems (includes artificial intelligence, machine learning)
LO2k	LO2k. Networking, communications and distributed computing - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Networking, communications and distributed computing

LO2l	LO2l. Operating systems - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Operating systems
LO2m	LO2m. Programming languages - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Programming languages
LO2n	LO2n. Software development fundamentals - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Software development fundamentals
LO2o	LO2o. Graphics and visual computing - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Graphics and visual computing
LO2p	LO2p. Human-computer interaction - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Human-computer interaction
LO2q	LO1q. Platform-based development - Competently apply knowledge to make sound judgements, solve problems, and assess or implement solutions in: Platform-based development
LO3	LO3. Use appropriate knowledge and skills, including background research and experimentation, to identify, investigate, abstract, conceptualize, analyse, and solve complex computing problems, in order to reach substantiated conclusions.
LO4	LO4. Design and evaluate solutions for complex open-ended computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, as well as economic, cultural, societal, and environmental considerations.
LO5	LO5. Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of their strengths and limitations.
LO6a	LO6a. Work effectively with integrity, accountability, and responsibility: a) as an individual
LO6b	LO6b. Work effectively with integrity, accountability, and responsibility: b) as a member of diverse teams
LO6c	LO6c. Work effectively with integrity, accountability, and responsibility: c) as a leader of diverse teams
LO6d	LO6d. Work effectively with integrity, accountability, and responsibility: d) in multi-disciplinary settings.
LO7a	LO7a. Communicate effectively with the computing community and society at large about complex computing activities by being able to: Compose clear and concise informative and persuasive messages
LO7b	LO7b. Communicate effectively with the computing community and society at large about complex computing activities by being able to: Write effective reports
LO7c	LO7c. Design attractive and comprehensible documentation for specific audiences

LO7d	LO7d. Deliver professional presentations
LO7e	LO7e. Compose effective emails or letters
LO7f	LO7f. Respond to written and oral messages effectively and appropriately
LO7g	LO7g. Write collaboratively
LO8a	Demonstrate professional and appropriate judgements with respect to a) ethical issues within local and global contexts, and with regard to the consequential responsibilities in these areas relevant to professional computing practice.
LO8b	Demonstrate professional and appropriate judgements with respect to b) societal issues within local and global contexts, and with regard to the consequential responsibilities in these areas relevant to professional computing practice.
LO8c	Demonstrate professional and appropriate judgements with respect to c) environmental issues within local and global contexts, and with regard to the consequential responsibilities in these areas relevant to professional computing practice.
LO8d	Demonstrate professional and appropriate judgements with respect to (d) health issues within local and global contexts, and with regard to the consequential responsibilities in these areas relevant to professional computing practice.
LO8e	Demonstrate professional and appropriate judgements with respect to (e) safety issues within local and global contexts, and with regard to the consequential responsibilities in these areas relevant to professional computing practice.
LO8f	Demonstrate professional and appropriate judgements with respect to(f) legal issues within local and global contexts, and with regard to the consequential responsibilities in these areas relevant to professional computing practice.
LO8g	Demonstrate professional and appropriate judgements with respect to (g) cultural issues within local and global contexts, and with regard to the consequential responsibilities in these areas relevant to professional computing practice.
LO9	Recognize the limits of their knowledge, and proactively and independently keep up to date and develop knowledge and skills in new tools, computer languages, technologies, techniques, standards and practices.
LO10	Describe the societal context, identify implications, and recognize limits of own knowledge in areas other than computer science and mathematics so as to be able to communicate and work effectively with professionals in those fields.