Program Outcomes (B.Tech)

1) **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2) **Problem analysis**: Identify, formulate, review research literature, and analysis complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3) **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4) **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5) **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6) **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7) **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8) **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9) **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10) **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11) **Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12) **Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (B.Tech)

PSO1: The ability to apply mathematical foundation, algorithmic principles and computer science theory in modelling of computer based system to meet futuristic need.

PSO2: The ability to apply standard practices and strategies in software project development/management using open-ended programming environments to deliver a quality product.

PSO3: The ability to employ modern computer tools, technology and platforms in creating innovative career options to be an entrepreneur, technocrats and a zest for higher studies.

Program Educational Objectives (B.Tech)

Computer Science and Engineering graduates will be able to:

PEO1: Analyse and solve Computer Science and Engineering problems through acquired knowledge in mathematical and engineering concepts.

PEO2: Excel in the field of computing technologies with usage of modern tools and multidisciplinary approach, to succeed in diversified domains of industry and academia.

PEO3: Develop professional and ethical attitude, communication skills, and an ability to relate computer engineering issues with societal needs.

PEO4: Adapt to new technologies and constantly upgrade skills with an attitude towards lifelong learning.

PEO5: Exhibit technical and research abilities along with a zeal to lead and work in team environment.

Signature
(HoD)

Head of department
Department of Computer Science & Engineering
Chandigarh Engineering College, Landran
Mohali, Punjab - 140307

Program Outcomes (M.Tech)

PO1: An ability to independently carry out research /investigation and development work to solve practical problems.

PO2: An ability to write and present a substantial technical report/document.

PO3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

PO4: Students should be considerate of professional and ethical responsibility for life-long learning**.**

Program Specific Outcomes (M.Tech)

PSO 1: Ability to understand, analyse real world problems and design professional software solutions within effective implementation frame work.

PSO 2: Innovate computational models for constantly evolving field of computer science engineering through acquired skill set of Computing, Networking and Algorithms.

Program Educational Outcomes (M.Tech)

PEO1: Provide students with broad background in computer science along with project management and people skills eventually leading to high-quality software professionals.

PEO2: Build successful careers in industrial research and software development.

PEO3: Ability to work effectively in interdisciplinary teams and be able to tackle problems that require both technical and non-technical solutions thus, creating multi-disciplinary projects.

PEO4: Enable students to continue learning and expand their knowledge to navigate the ever-changing biztech world.

Signature
(HoD)
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