

A. Knowledge and Understanding:

Upon successful completion of the program, graduates should be able to:

- A1.** Identify an essential scientific facts, terms, concepts, fundamentals and theories related to Computer Science
- A2.** Exhibit a sound understanding of the concepts related to analysis and design, implementation and evaluation of computer-based systems.
- A3.** Demonstrate a solid knowledge in utilizing and adapting computing tools, techniques, practices, and methods for solving the real-world computing problems.
- A4.** Recognize the local and global impact of computing tools, techniques, practices, and methods for solving the real-world computing problems.
- A5.** Recognize the local and global impact of computing on individuals, organizations, and society.

B. Cognitive/ Intellectual Skills:

Upon successful completion of the program, graduates should be able to:

- B1.** Clearly differentiate and classify different types of data, data structures, algorithms, methods, models, and techniques based on their subject, usage, and problem requirements.
- B2.** Analyze a complex computing problem using mathematical principles, appropriate tools and techniques to identify and define the computing requirements appropriate to its solution.
- B3.** Think in creative and an innovative way to provide appropriate solutions for specific problem taking into consideration the quality constraints, current deployment and future evolution.
- B4.** Evaluate a computing-based solution in the context of Computer Science and related disciplines.

C. Practical and Professional Skills:

Upon successful completion of the program, graduates should be able to:

- C1.** Apply efficiently mathematical foundations, algorithmic principles, and computer science theory to produce computing-based solutions.
- C2.** Design, implement, and test a computing-based solution, process, component, or program to meet a given set of computing requirements.
- C3.** Deploy effectively design and development principles, tools, and techniques used for the construction and documentation of software system of varying complexity.
- C4.** Use current techniques, skills, and tools necessary for computing practice.

D. General and Transferable Skills:

Upon successful completion of the program, graduates should be able to:

- D1.** Function effectively as an individual, as a member, or leader of a team engaged in activities appropriate to the Computer Science discipline to accomplish a common goal.
- D2.** Commit to professional ethics, responsibilities, and norms of professional computing practices.
- D3.** Communicate effectively in writing and verbally in a variety of professional contexts.
- D4.** Engage in continuing professional development and lifelong learning as a computing professional