

A. Knowledge and Understanding:

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

- A1.** Demonstrate an understanding of the essential facts, concepts, principles and theories related to the fundamental sciences and the field of Data Science and Artificial Intelligence.
- A2.** Recognize the recent trends of technology and its impacts on the individuals, organizations, and society in the area of Data Science and Artificial Intelligence.
- A3.** Demonstrate a profound knowledge in utilizing and adapting computing tools, techniques, practices, and methods for solving the real-world computing problems.
- A4.** Demonstrate knowledge and understanding of contemporary tools and technologies to produce solutions relevant to the domain of Data Science and Artificial Intelligence to meet a set of agreed requirements.

B. Cognitive/ Intellectual Skills:

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

- B1.** Critically analyze complex computing problems using the basic concepts, principles, analytical and mathematical models, algorithms and software tools related to the field of Data Science and Artificial Intelligence.
- B2.** Evaluate emerging data analysis technologies and their application to different types and amounts of data related to Data Science and Artificial Intelligence.
- B3.** Select an appropriate model/framework for developing and managing intelligent-based solutions.
- B4.** Evaluate a computing-based solution in the context of Data Science and Artificial Intelligence and related disciplines.

C. Practical and Professional Skills:

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

- C1.** Apply computer science theory, data science and artificial intelligence, and software development fundamentals to design and develop intelligent-based solutions.
- C2.** Design, implement, and test a computing-based solution to meet a given set of computing requirements in the context of data science and artificial intelligence.

C3. Deploy effectively computing tools and techniques used for the construction and documentation of intelligent applications of varying complexity.

D. General and Transferable Skills:

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

- D1.** Function effectively individually, as a member, or leader of a team engaged in activities appropriate to the data science and artificial intelligence 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.