

## **A. Knowledge and Understanding:**

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

- A1.** Demonstrate an in-depth knowledge of terminology, concepts, methods, principles and theories related to the field of cyber security.
- A2.** Demonstrate a profound knowledge of computing tools, techniques, and methods for solving the real world computing problems.
- A3.** Identify the user and organizational needs and issues involved in the management and security of digital information and computer technology, and the development and maintenance of secure information systems.
- A4.** Describe the concepts and techniques to achieve authentication, authorization, access control, and data integrity.

## **B. Cognitive/ Intellectual Skills:**

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

- B1.** Analyze the basic concepts, principles, analytical and mathematical models, algorithms and software tools in the context of cybersecurity.
- B2.** Select an appropriate range of security protocols, tools, and techniques for providing confidentiality, data protection, data integrity, authentication, non-repudiation, and obfuscation.
- B3.** Select an appropriate range of tools and technologies to plan, organize, and implement a cyber security project considering human factors, user and organisational requirements.
- B4.** Evaluate a computing-based solution to meet a given set of computing requirements in the context of cybersecurity discipline.

## **B5. C. Practical and Professional Skills:**

**B6.** Upon successful completion of the program, graduates should be able to:

- B1.** Apply mathematical foundations, algorithmic principles, cryptography, design and development principles, and computing theory in the modeling and design of security solutions for software, network, or system architecture.
- B2.** Design, implement, and test a computing-based solution to meet a given set of computing requirements in the context of cyber security.
- B3.** Deploy effectively computing tools and techniques used for the construction and documentation of secure computer applications of varying complexity.

**B4.** Apply principles, processes, tools and techniques used in mitigating security threats and responding to security incidents.

**B5. D. General and Transferable Skills:**

**B6.** Upon successful completion of the program, graduates should be able to:

**B1.** Function effectively individually, as a member, or leader of a team engaged in activities appropriate to the cybersecurity program's discipline to accomplish a common goal.

**B2.** Commit to professional ethics, responsibilities, and norms of professional computing practices.

**B3.** Communicate effectively in writing and verbally computing and cybersecurity concepts and implications to a wide range of audiences.

**B4.** Engage in continuing professional development and lifelong learning as a computing professional.