BROAD COURSE OBJECTIVE

To gain a comprehensive understanding of data and information security principles and techniques, including cryptographic methods, secure communication protocols, and countermeasures against various security threats and attacks.

COURSE OBJECTIVES

1. To understand the different types of security threats, attacks, and vulnerabilities and how they can be mitigated.

2. To understand the principles of symmetric encryption and be able to apply symmetric encryption techniques such as block ciphers and stream ciphers.

3. To understand the principles of public key cryptography and be able to apply public key encryption techniques such as RSA and D-H algorithms.

4. To understand the principles and implementation of secure email and e-commerce protocols such as PGP and SET.

5. To understand the various types of malicious programs and how to protect against them, including viruses, worms, and Trojan horses.