1. Name of the Course: Fundamentals of Information Security

2. LTP structure of the course: L:1 T:0 P:1

3. Objective of the course: Information Security is all about the protection of confidentiality, integrity and availability of information Asset for any organization. The objective to teach this paper is to provide an exposure to the students in the area of identifying information Asset, the different types of control to mitigate the risk associated with Information Asset, Roles and responsibility and classification of information asset.

4. Outcome of the course: After successful completion of this course, students will be familiar the important of Information Security and different techniques to ensure the information security. Students will get the implementation exposure of Cryptographic algorithms and different vulnerabilities.

5. Course Plan: As per the below format only

Component	Unit	Topics for Coverage
Component 1	Unit 1	Introduction to Information Security, Confidentiality, Integrity, Availability, Cryptography: Symmetric Key Encryption, Asymmetric Key encryption.
	Unit 2	DES algorithm, RSA algorithm, Hash functions, Digital Signature, Public Key Infrastructure (PKI), Digital Certificate. Information Security threats: DoS, Trozan Horse, Virus, Worms, Backdoors, Brute Force, Password Crack, Spoofing, Man in the Middle Attack, Sniffing and Overflow attacks. Honeypot.
Component 2	Unit 3	Asset Classification: Top Secret, Secret, Confidential and Public. Authentication, Access Control, Security Models – Bella Padula model, Biba Model.
	Unit 4	Risk Analysis: Base Metrics, Temporal Metrics and Environmental Metrics of CVSS. Business Continuity Planning and Disaster Recovery Management basics.

6. Text Book:

- Mark Merkow, "Information Security: Principles and Practice", 2nd edition (Wiley 2011).

7. References:
- Michael E. Whitman and Herbert J. Mattord Principles of Information Security Fourth Edition, Cengage Learning.
- https://www.first.org/cvss/specification-document
- https://sites.google.com/site/cacsolin/bell-lapadula