

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT
Information Security

Objective: To introduction the concept about security of data.

Contents:

Unit 1 Information Security Basics

Introduction

Information Security Threats

Types of Information Security

Need and Scope for Security & Control

Security Policy Scope: Local and Network

Features of Security Policy including Components

Types of Security Policies: Confidentiality, Integrity, Hybrid

Security Policy: Life Cycle and Key

Information Security Architecture: Design, Implementation & Administration / Maintenance phase

Security Awareness & Training

Information Security Risk Evaluations: Principles & Attributes

Information Security Risk Management: Framework

Unit 2 Access Control

Access Control: Identification, Authentication, Authorization, Password control & management

Access control issues

Implementation of Access Control – Biometrics

Unit 3 Security Technology

Backup & Recovery Strategies

Data input & Output control

Cryptography: Introduction, Classical Cryptosystems, Public & Private key Cryptography, Cipher Techniques, Encryption Standard and Algorithms, Types of Encryption

Digital Signature: Classical & Public Key

Digital Certification

Unit 4 Network & OS Security

Network Architecture Security: Common Network attacks, Physical & Logical Network Policies, Threats to Network Security, Firewall Architecture, VPN Security, Security by Network Devices, Network Recovery Strategy

OS Security: Trusted OSs, Authentication, Account Security, File System Protection, File Sharing Security, Security logs, Network Access Controls

Internet Security: Mail Security, FTP security, Telnet Security, Browser security, News security

Intrusion Detection & Management

Avoidance & Detection

Unit 5 Other Security Issues

Physical & Environmental Security

Management perspective about Security

Threat to & from organization: Protects from people, Protects of employees

Unit 6 Security Audit

Introduction
Objectives
Conducting Audit
Database Security Audit
Network & Telecom Security Audit

A sample security policies, procedures and assessment work plan to be developed as a part of case study.

Reference:

Network Security – C. Kaufman, R. Prelman & M. Speciner, Pearson Education
Principles of Information Security – M. Whiteman & Herbert, Thomson publication.
Information Security – An overview, PHI
Information Security – Policies and implementation issues, PHI
Introduction to Computer Security – M. Bishop, S. Venkatramanayya, Person Education
Security in Computing – C. P. Pfleeger & S.L. Pfleeger, PHI
Information Security Best Practices: 205 Basic Rules – G.L. Stefanek, J. Varteresian, Elsevier
Publication