

CHME SOCIETY's Dr. MOONJE INSTITUTE OF MANAGEMENT AND COMPUTER STUDIES

Introduction to Cyber Security

Syllabus for 'Introduction to Cyber Security' program

Subject Code : 192

Subject Name : Introduction To Cyber Security –I (Pre-requisites in Information and Network Security)

Chapter 1: Overview of Networking Concepts 3
Chapter 2: Information Security Concepts 3
Chapter 3: Security Threats and Vulnerabilities 5
Chapter 4: Cryptography / Encryption 3

Subject Code : 292

Subject Name : Introduction To Cyber Security –II (Security Management)

Chapter 1: Security Management Practices 7
Chapter 2: Security Laws and Standards 6

Subject Code : 392

Subject Name : Introduction To Cyber Security –III (Information and Network Security)

Chapter 1: Access Control and Intrusion Detection 3
Chapter 2: Server Management and Firewalls 4
Chapter 3: Security for VPN and Next Generation Technologies 6

Subject Code : 492

Subject Name : Introduction to cyber security- IV (System and Application Security)

Chapter 1: Security Architectures and Models 5
Chapter 2: System Security 5
Chapter 3: OS Security 5
Chapter 4: Wireless Network and Security 5

Detail Syllabus for Credit Courses in Introduction to Cyber Security

Subject Code : 192

Subject Name : Introduction To Cyber Security –I (Pre-requisites in Information and Network Security)

Chapter 1: Overview of Networking Concepts

1. Basics of Communication Systems
2. Transmission Media
3. Topology and Types of Networks
4. TCP/IP Protocol Stacks
5. Wireless Networks
6. The Internet

Chapter 2: Information Security Concepts

1. Information Security Overview: Background and Current Scenario
2. Types of Attacks
3. Goals for Security
4. E-commerce Security
5. Computer Forensics
6. Steganography

Chapter 3: Security Threats and Vulnerabilities

1. Overview of Security threats
2. Weak / Strong Passwords and Password Cracking
3. Insecure Network connections
4. Malicious Code
5. Programming Bugs
6. Cyber crime and Cyber terrorism
7. Information Warfare and Surveillance

Chapter 4: Cryptography / Encryption

1. Introduction to Cryptography / Encryption
2. Digital Signatures
3. Public Key infrastructure
4. Applications of Cryptography
5. Tools and techniques of Cryptography

Subject Code: 292

Subject Name : Introduction To Cyber Security –II (Security Management)

Chapter I: Security Management Practices

1. Overview of Security Management
2. Information Classification Process
3. Security Policy
4. Risk Management
5. Security Procedures and Guidelines
6. Business Continuity and Disaster Recovery
7. Ethics and Best Practices

Chapter 2: Security Laws and Standards

1. Security Assurance
2. Security Laws
3. IPR
4. International Standards
5. Security Audit
6. SSE-CMM / COBIT etc

Subject Code : 392

Subject Name : Introduction To Cyber Security –III (Information and Network Security)

Chapter 1: Access Control and Intrusion Detection

1. Overview of Identification and Authorization
2. Overview of IDS
3. Intrusion Detection Systems and Intrusion Prevention Systems

Chapter 2: Server Management and Firewalls

1. User Management
2. Overview of Firewalls
3. Types of Firewalls
4. DMZ and firewall features

Chapter 3: Security for VPN and Next Generation Technologies

1. VPN Security
2. Security in Multimedia Networks
3. Various Computing Platforms: HPC, Cluster and Computing Grids
4. Virtualization and Cloud Technology and Security

Subject Code : 492

Subject Name : Introduction to cyber security- IV (System and Application Security)

Chapter 1: Security Architectures and Models

1. Designing Secure Operating Systems
2. Controls to enforce security services
3. Information Security Models

Chapter 2: System Security

1. Desktop Security
2. email security: PGP and SMIME
3. Web Security: web authentication, SSL and SET
4. Database Security

Chapter 3: OS Security

1. OS Security Vulnerabilities, updates and patches
2. OS integrity checks
3. Anti-virus software
4. Configuring the OS for security
5. OS Security Vulnerabilities, updates and patches

Chapter 4: Wireless Networks and Security

1. Components of wireless networks
2. Security issues in wireless

HUMAN RIGHTS-The syllabus

SUBJECT CODE : 191

SUBJECT NAME : HUMAN RIGHTS - I

(Introduction to Human Rights and Duties)

I) Basic Concept

a) Human Values- Dignity , Liberty, Equality , Justice, Unity in Diversity, Ethics and Morals

b) Meaning and significance of Human Rights Education

II) Perspectives of Rights and Duties

a) Rights: Inherent -Inalienable -Universal - Individual and Groups

b) Nature and concept of Duties

c) Interrelationship of Rights and Duties

III) Introduction to Terminology of Various Legal Instruments

a) Meaning of Legal Instrument - Binding Nature

b) Types of Instruments: Covenant -Charter -Declaration -Treaty-Convention-Protocol- Executive Orders and Statutes

IV) United Nations And Human Rights

a) Brief History of Human Rights- International and National Perspectives

b) Provision of the charters of United Nations

c) Universal Declaration of Human Rights - Significance-Preamble

d) Civil and Political Rights -(Art. 1-21)

e) Economic, Social and Cultural Rights -(Art.22-28)

f) Duties and Limitations -(Art. 29)

g) Final Provision (Art. 30)

HUMAN RIGHTS-The syllabus

SUBJECT CODE : 291

SUBJECT NAME : HUMAN RIGHTS - II

(Human rights of vulnerable and disadvantaged groups)

I) General Introduction

- a) Meaning and Concept of Vulnerable and Disadvantaged
- b) Groups, Customary, Socio-Economic and Cultural Problems of
- c) Vulnerable and Disadvantaged Groups

II) Social status of women and children in International and national perspective

- a) Human Rights and Women's Rights –International and National Standards
- b) Human Rights of Children -International and National Standards

III) Status of Social and Economically Disadvantaged people

- a) Status of Indigenous People and the Role of the UN
- b) Status of SC/ST and Other Indigenous People in the Indian Scenario
- c) Human Rights of Aged and Disabled
- d) The Minorities and Human Rights

IV) Human rights of vulnerable groups

- a) Stateless Persons
- b) Sex Workers
- c) Migrant Workers
- d) HIV/AIDS Victims