| | |
|---|---|
| **COURSE TITLE** | **CYBER SECURITY** |
| **COURSE CODE** | **04BB0533** |
| **COURSE CREDITS** | **2** |

**Objective:**

1 N/A

**Course Outcomes:** After completion of this course, student will be able to:

1 Demonstrate understanding of basic concepts in cybersecurity
2 Analyze threats and risks within the context of the cybersecurity architecture.
3 Examine the performance and troubleshoot Network and cybersecurity systems.
4 Make use of various tools and methods used in cybercrime
5 Evaluate cyber activities that are considered crimes as per the IT Act.

**Pre-requisite of course:**Basic knowledge of statistical concepts.

**Teaching and Examination Scheme**

| Theory Hours | Tutorial Hours | Practical Hours | ESE | IA | CSE | Viva | Term Work |
|---|---|---|---|---|---|---|---|
| 2 | 0 | 0 | 100 | 0 | 0 | 0 | 0 |

| Contents : Unit | Topics | Contact Hours |
|---|---|---|
| 1 | **Introduction to Cyber Security**<br>Cybercrime and origins of the world, Cybercrime and information security, Classifications of cybercrime, Cybercrime and the Indian ITA- 2000, A global Perspective on cybercrimes | 8 |
| 2 | **Phishing and Identity Theft**<br>Introduction, , Phishing: Methods of Phishing, Phishing Techniques, , Spear Phishing, Types of Phishing Scams, , Phishing Toolkits and Spy Phishing, Phishing Countermeasures, Identity Theft (ID Theft): Personally, Identifiable Information (PII), Types of Identity Theft, Techniques of ID Theft, , Identity Theft Countermeasures. | 10 |
| 3 | **Tools and Methods Used in Cybercrime**<br>Proxy Servers and Anonymizers, Password Cracking, Keyloggers, , Virus and Worms,, Trojan Horses and Backdoors, Steganography,, DoS and DDoS Attacks, , SQL Injection, Cyberlaws: The Indian Context, The Indian IT Act, , Challenges to Indian Law and Cybercrime Scenario in India, Consequences of Not Addressing the Weakness in Information Technology Act, Amendments to the Indian IT Act, Cybercrime and Punishment. , Digital Personal Data Protection (DPDP) Act, 2023 Salient Features | 12 |
| **Total Hours** | | **30** |

MR. PARAS CHANDULAL RUGHANI
**Digitally signed by (Name of HOD)**

DR. SANJEET SINGH
**Digitally signed by (Name of Dean/ Principal)**

**Textbook :**

1 Cyber Security Understanding Cyber Crimes, Nina Godbole and Sunit Belpure,, Wiley Publication,, 0000

2 Anti-Hacker Tool Kit, Mike Shema, Mc. Graw Hill Publication,, 0000

**References:**

1 Cyber Security Essentials, Cyber Security Essentials, James Graham, Richar Howard, Ryan Olson,, Taylor & Francis Group, 0000

2 Cyber Security and Global Information Assurance:, Cyber Security and Global Information Assurance:, Kenneth J. Knapp, IGI Global, IGI Global, 2019

**Suggested Theory Distribution:**

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

| Distribution of Theory for course delivery and evaluation | | | | | |
|---|---|---|---|---|---|
| **Remember / Knowledge** | **Understand** | **Apply** | **Analyze** | **Evaluate** | **Higher order Thinking / Creative** |
| 0.00 | 0.00 | 35.00 | 35.00 | 30.00 | 0.00 |

**Instructional Method:**

1 Theory

MR. PARAS CHANDULAL RUGHANI
**Digitally signed by (Name of HOD)**

DR. SANJEET SINGH
**Digitally signed by (Name of Dean/ Principal)**