

Vikram University, Ujjain

Board of studies in Computer science (Faculty of Engineering Science)

SYLLABUS of

Diploma in Information Security and Cyber Law

Exclusively for University Teaching Department (ICS, VUU)

Diploma in Information Security and Cyber Law

PROGRAMME of UTD (ICS, VUU)

(Effective from Academic Session 2020-21)

[Modified as according to the provision of “Ordinance”]

Programme Objectives:

- To create awareness of Information security issues and challenges in IT environment.
- To impart basic knowledge and skills to protect one's personal IT assets.
- To learn the techniques needed for providing protection and security to our personal data and information resources.
- To experiment and learn the skills to provide protection and security to organizational data and information to build a secured IT infrastructure in the companies.
- To develop high level of professional ethics in providing security in the cyber world.
- To develop awareness in taking precautions in protecting them from cyber crimes and fraudulent activities.

COURSE STRUCTURE

Diploma in Information Security and Cyber Law

Paper code	Title of Paper	Theory External Marks	Min. Pass marks	Internal Marks	Min. Pass marks	Total
DIC-101	Information Security	75	27	25	09	100
DIC- 102	Cyber Security and Cyber Law	75	27	25	09	100
DIC-103	Internship/Industrial Training/Project Work	<u>150</u>	<u>54</u>	50	28	200
	Total	<u>300</u>		100		400

DIC-101: Information Security

UNIT-1

System Security: Desktop Security, Programming Bugs and Malicious code, Database Security, Operating System Security, OS Security Vulnerabilities.

UNIT-2

Security Management: Disaster Recovery, Digital Signature, Ethical Hacking, Penetration Testing, Computer Forensics

UNIT-3

Network Security: Network Security Model, Network Security Threats, Firewalls: Overview, Types, Features, User Management, Intrusion Detection System, Intrusion Prevention System, Public Key Infrastructure, Digital Signature Schemes

UNIT-4

Internet and Web Application Security: Email security: PGP and SMIME, Web Security: Web authentication, Injection Flaws, SQL Injection, Web Browser Security, E-Commerce Security

UNIT-5

Wireless Network Security: Wireless Network Components, Security issues in Wireless Networks, Securing a Wireless Network, Mobile Security

Reference Books:

1. Charlie Kaufman, Radia Perlman, Mike Speciner, "Network Security", Prentice Hall, 2nd edition, 2002, ISBN-10: 0130460192, ISBN-13: 978-0130460196.
2. Charles Pfleeger, "Security in Computing", Prentice Hall, 4 th Edition, 2006, ISBN-10: 0132390779, ISBN-13: 978-0132390774.
3. Ulysess Black, "Internet Security Protocols: Protecting IP Traffic", Prentice Hall PTR; 1st edition, 2000, ISBN-10: 0130142492, ISBN-13: 978-0130142498.
4. Amir Ranjbar 2007, CCNP ONT Official Exam Certification Guide, Cisco Press [ISBN: 978-1- 58720-176-3].

DIC–102 : Cyber Security and Cyber Law

UNIT-1

Cyber World: An Overview: The internet and online resources, Security of information, Digital signature. **An Overview of Cyber Law:** Introduction about the cyber space, Regulation of cyber space – introducing cyber law, UNCITRAL Model Law on Electronics Commerce 1996.

UNIT-2

An Overview of Cyber Crimes: Defining Crime, Crime in context of Internet –Actus Rea/Mens Rea, Types of crime in Internet, Computing damage in Internet crime. **An Overview of Indian Penal Law & Cyber Crimes:** Fraud, Hacking, Mischief, Trespass, Defamation, Stalking, Spam.

UNIT-3

An Overview of Human Rights Issues in Internet: Freedom of Expression in Internet, Issues of Censorship, Hate speech, Sedition, Libel, Subversion, Privacy Issues, International Positions on Free Speech in Internet

UNIT-4

An Overview of Electronic Contracts: The Indian Law of Contract, Construction of Electronic Contracts, Issues of Security Issues of Privacy Technical Issues in Cyber Contracts

UNIT-5

Types of Electronic Contracts: Employment Contracts Consultant Agreements Contractor Agreements Sales, Re-Seller and Distributor Agreements Non-Disclosure Agreements, Software Development & Licensing Agreements Shrink Wrap Contract, Source Code Escrow Agreements. **An Overview of Copy Right in Information Technology:** Understanding the technology of Software, Software - Copyrights vs. Patents debate, Authorship and Assignment Issues, Commissioned Work and Work for Hire, Idea/Expression dichotomy, Copyright in Internet.

Reference Books:

1. Vivek Sood, Cyber law Simplified, Tata Mcgraw-Hill Publishing (2001).
2. Chris Reed and John Angel, Cyber law (2007)
3. Sudhir Naib, The Information Technology Act, 2005: A Handbook, OUP, New York, (2011)
4. S. R. Bhansali, Information Technology Act, 2000, University Book House Pvt. Ltd.