

Cyber Security

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Course Objective: To learn the foundation of Cyber security and threat landscape and develop skills in students that can help them plan, implement, and monitor cyber security mechanisms to ensure the protection of information technology assets and responsible use of social media networks.

S. NO	Course Outcomes (CO)
CO1	Students would be able to understand the concept of Cyber Security and issues challenges associated with it.

CO2	Able to understand the cyber crimes,their nature,legal remedies, and as to how report the crimes through platforms.	
CO3	Able to appreciate various privacy and security concerns on online social media,reporting on inappropriate content	
CO4	Able to understand E-Commerce and digital payments and in their frauds and security issues,RBI guidelines	
CO5	Able to understand the basic security aspects,use basic tools and technologies to protect their devices	
S. NO	Contents	Contact Hours
UNIT 1	Introduction to Cyber Security: Defining Cyberspace & Overview of Computer, Architecture of Cyberspace, Communication & Web Technology, Internet, World Wide web, Advent of Internet Infrastructure for data transfer, governance & society, Regulation of cyberspace, Concept, Issues & challenges of Cyber Security	6
UNIT 2	Cyber Crime & Cyber Laws: Classification of cyber crimes, Common cyber crimes - cyber crime targeting computers and mobiles, cyber crime against women and children, financial frauds, social engineering attacks, malware and ransomware attacks, zero day and zero click attacks, Cybercriminals and modus operandi, Reporting of cyber crimes, Remedial and mitigation measures, Legal perspective of cyber crime and offences, Organisations dealing with Cyber crime and Cyber Security in India, Case Studies	10
UNIT 3	Social Media Overview & Security: Introduction to Social Networks, Types of Social Media, Social media Platforms, Social Media monitoring, Hashtag, Viral Content, Social media marketing, media privacy, Challenges, opportunities, pitfall in online social network, Security issues, flagging, reporting inappropriate content, best practices for the use of social media, case studies	6
UNIT 4	E-Commerce & Digital Payments: Definition of ECommerce, Main Components, Elements, security, threats, security best practices, Introduction to digital payments, Components of digital payment and stakeholders, Models of digital payments - Banking Cards, Unified Payment Interface (UPI), e-Wallets, Unstructured Supplementary Service Data (USSD), Aadhar enabled payments, frauds & preventive measures, RBI guidelines on digital payments and customer protection in unauthorised banking transactions. Relevant provisions of payment Settlement Act, 2007.	10
UNIT 5	Digital Devices Security Tools & Technologies for Cyber Security: End point device and mobile phone security, Password policy, security patch management, Data backup, Downloading Management of third party software, Device Security policy, Cyber Security best practices, Significance & Management of host firewall & Anti-virus, Wi-Fi Security, Configuration of basic security policy permissions	10

	Total	42
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REFERENCES		
S.No.	Name of Books/Authors/Publishers	Year of Publication / Reprint
1	Cyber Crime Impact in the New Millennium, by R.C.Mishra, Author Press	2010
2	Cyber Security Understanding Cyber Crimes, Computer Forensics and Legal Perspectives by Sumit Belapurkar and Nina Godbole, Wiley India Pvt.Ltd.	2011
3	Security in the Digital Age: Social Media Security Threats and Vulnerabilities by Henry A. Oliveer, Create Space Independent Publishing Platform.	2001
4	Fundamentals of Network Security by E.Maiwald,McGraw Hill	2004