

J.S. University, Shikohabad

Established by UP Govt. Act No. 07 of 2015

Recognized by U.G.C. under section 2 (f) of Act-1956



Value Added Course

Value Added Course

(Cyber Security)

Faculty of Education

Learning Outcome:

This Course will know cyber security

Duration: 30 Hours. (Theory and Practical)

course Objectives:

1. To secure the information stored and conveyed which is an invaluable resource of any organization
2. To update the knowledge of students in network security issues

Course Outcome

The students gain the most comprehensive knowledge and skills in the Network Security providing an opportunity to equip the Network System Administrators & Information Security Officers to understand the security concerns, vulnerabilities, attacks and to plan and implement the desired e-Security solutions.

MODULE I:

Networking Concepts Overview- Basics of Communication Systems, transmission Media, ISO/OSI and TCP/IP Protocol Stacks, Local Area Networks, Wide Area Networks, Internetworking, Packet Formats, Wireless Networks, The Internet

MODULE II:

Information Security Concepts- Information Security Overview, Information Security Services, Types of Attacks, Goals for Security, E-commerce Security, Computer Forensics, Steganography, Security Engineering

MODULE III:

Security Threats and vulnerabilities- Overview of Security threats, Hacking Techniques, Password Cracking, Insecure Network connections, Malicious Code, Programming Bugs, Cyber crime and Cyber terrorism, Information Warfare and Surveillance

MODULE IV:

Cryptography- Introduction to Cryptography, Symmetric key Cryptography, Asymmetric key Cryptography, Message Authentication and Hash functions, Digital Signatures, Public Key infrastructure, Diffe-Hellman key exchange protocol, Applications of Cryptography

MODULE V


Security Management Practices- Overview of Security Management, Information Classification Process, Security Policy, Risk Management, Security Procedures and Guidelines, Business Continuity and Disaster Recovery

Reference Books:

- Future Crimes: Inside the Digital Underground and the Battle for our Connected World by Marc Goodman.
- Spam Nation: The Inside Story of Organized Cybercrime- from Global Epidemic to Your Front Door by Brian Krebs.
- Data and Goliath: The Hidden Battles to Collect Your Data and Control Your World by Bruce Schneier

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