Course Outline: Cyber Security Professionals

Course by:

Sheikh Kamal IT Business Incubator, CUET
Chattogram-4349, Bangladesh.

Course Summary

No.	Subject	Comments
1	Course Duration	48 Hours (16 Classes, 8 Weeks)
2	Pre-requisites	Basic understanding of computers and networking concepts.
3	Lab Facilities	SKITBI, CUET will provide.

Schedule

Batch – 01 (Offline): Friday & Saturday 10 am to 1 pm
Batch – 02 (Online): Friday & Saturday 6 pm to 9 pm

Coordinator

Professor Dr. M. Moshiul Hoque
Professor, Dept of CSE, CUET
Director, Sheikh Kamal IT Business Incubator in CUET
Former Dean, Faculty of Electrical & Computer Engineering, CUET
Chair, IEEE Bangladesh Section

Trainers
An expert panel comprising industry and academic professionals will lead the course.

Learning Outcomes

By the end of this course, participants will:
- Understand cyber threats, risks, and basic cybersecurity concepts.
- Acquire essential networking skills for secure network management.
- Master operating system security practices and cryptography fundamentals.
- Learn web security principles and how to secure web applications.
- Develop expertise in incident response, penetration testing, and advanced cybersecurity concepts.

Course Modules

Module	Topics Covered	Duration	Comments
Module 1: Introduction to Cyber Security	Overview of cyber threats and risks, Importance of cybersecurity in the digital age, Basic terminology and concepts.	3 hours	Provides a foundational understanding of the cybersecurity landscape.
Module 2: Fundamentals of Networking	Basics of networking and protocols, TCP/IP fundamentals, Understanding network architectures.	6 hours	Establishes core networking knowledge essential for cybersecurity.
Module 3: Operating System Security	Securing Windows, Linux, or macOS, User account management and permissions, Patch management.	3 hours	Focuses on securing operating systems, a crucial aspect of cybersecurity.
Module 4: Introduction to Cryptography	Basic cryptographic concepts, Encryption and decryption techniques, Public key infrastructure (PKI).	3 hours	Introduces principles of cryptography and its role in cybersecurity.

Module 5: Web Security Basics	Common web vulnerabilities (SQL injection, XSS), Securing web applications, Web application firewalls (WAF).	3 hours	Addresses security concerns specific to web applications.
Module 6: Threat Intelligence and Information Sharing	Understanding threat intelligence, Information sharing and collaboration, Threat feeds and analysis.	3 hours	Introduces importance of threat intelligence in cybersecurity.
Module 7: Network Security	Firewalls and intrusion detection/prevention systems, Virtual Private Networks (VPNs), Securing wireless networks.	3 hours	Explores network-centric security measures.
Module 8: Incident Response and Handling	Developing an incident response plan, Identifying and responding to security incidents, Post-incident analysis.	3 hours	Equips professionals with skills to respond effectively to security incidents.
Module 9: Security Assessment and Penetration Testing	Conducting vulnerability assessments, Penetration testing methodologies, Reporting and remediation.	6 hours	Covers techniques for identifying and mitigating vulnerabilities.
Module 10: Advanced Cyber Security Concepts	Advanced persistent threats (APTs), Zero-day vulnerabilities, Advanced malware analysis.	6 hours	Explores advanced topics to deepen cybersecurity knowledge.

Module 11: Cloud Security	Fundamentals of cloud computing security, Securing cloud infrastructure and services, Identity and access management (IAM) in the cloud.	6 hours	Addresses security challenges and best practices in cloud environments.
Module 12: Mobile Security	Mobile device security fundamentals, Securing mobile applications, Mobile device management (MDM) and BYOD policies.	3 hours	Covers security considerations for mobile platforms and applications.

Frequently Asked Questions (FAQ)

Can I register for multiple courses?
-Yes, participants can register for multiple courses.

Will there be an overlap in class schedules for multiple courses
-There may be minimal overlap in class schedules, Please check the routine available at the notice board.

What are the available payment methods for online enrollment?
-Payment can be made via cash or online using the "Bkash to Bank" option.

Are there evening batches available for job holders?
-Yes, evening batches will be available. Please check the routine available on the notice board of the website.

Can I switch between online and offline classes?
-Online and offline classes are separate batches, and transfer depends on seat availability.

How will admission be confirmed?
-Admission will be confirmed upon payment; no separate admission exam will be conducted.

Will classes be conducted in locations other than the chosen one?
-No, classes will only be conducted at the chosen location, not in other cities.

What is the profile of the trainers?
-Faculty members will include both academic and industry experts.

What is the last date of enrollment?
-There is no last date of admission. After filling out the batches, enrollment will be closed.

Can I admit physically?
-Yes, Come to the third floor (Room no: 301,302) at the Multipurpose Building of Sheikh Kamal IT Business Incubator, CUET.

Will classes be held during Ramadan?
-Yes, they will.

Will a recorded version be available?
Yes, you will get lifetime access to the recorded version of the classes.