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EC-Council Certified Encryption Specialist (ECES)

COURSE OVERVIEW

The EC-Council Certified Encryption Specialist (ECES) program introduces the fundamentals of cryptography, covering symmetric and asymmetric encryption, key algorithms like DES, AES, RSA, Elgamal, and elliptic curve. It also explores hashing algorithms such as MD5, SHA, and RIPMD, and concepts like diffusion, confusion, and Kerckhoffs's principle. Participants gain hands-on experience with VPN setup, drive encryption, steganography, and classic-to-modern cryptographic algorithms.

WHO SHOULD ATTEND?

Anyone involved in the selection and implementation of VPN's or digital certificates should attend this course. Without understanding the cryptography at some depth, people are limited to following marketing hype. Understanding the actual cryptography allows you to know which one to select. A person successfully completing this course will be able to select the encryption standard that is most beneficial to their organization and understand how to effectively deploy that technology. This course is also excellent for ethical hackers and penetration testing professionals as most penetration testing courses skip cryptanalysis completely. Many penetration testing professionals usually don't attempt to crack cryptography. A basic knowledge of cryptanalysis is very beneficial to any penetration testing.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to;

- Understand the Fundamentals of Cryptography.
- Apply Classical Cryptography Techniques.
- Implement Multi-Alphabet Substitution Techniques.
- Analyze Machine-Based Encryption.
- Utilize Modern Cryptography Tools.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Introduction to cryptography and the foundations of encryption.
- Symmetric and asymmetric encryption algorithms, including AES, DES, and RSA.
- Exploring modern cryptographic standards and their practical applications.
- Key exchange protocols and digital signatures for secure communications.
- Hashing algorithms such as MD5, SHA, and HMAC.
- Implementing and managing encryption in various technologies including disk, email, and wireless encryption.
- Cryptographic attacks and defenses.
- Hands-on experience with tools like OpenSSL and Microsoft CryptoAPI.
- Preparation for the ECES certification exam to validate encryption expertise.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.
1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded