



EC-COUNCIL CERTIFIED ENCRYPTION SPECIALIST (ECES)



**Well Trained People,
Better Served Customers.**

COURSE OVERVIEW

The EC-Council Certified Encryption Specialist (ECES) program introduces professionals and students to the field of cryptography. The participants will learn the foundations of modern symmetric and key cryptography including the details of algorithms such as Feistel Networks, DES, and AES. Other topics introduced:

- Overview of other algorithms such as Blowfish, Twofish, and Skipjack
- Hashing algorithms including MD5, MD6, SHA, Gost, RIPMD 256 and others.
- Asymmetric cryptography including thorough descriptions of RSA, Elgamal, Elliptic Curve, and DSA.
- Significant concepts such as diffusion, confusion, and Kerkchoff's principle.
- Participants will also be provided a practical application of the following:
 - How to set up a VPN
- Encrypt a drive
- Hands-on experience with steganography
- Hands on experience in cryptographic algorithms ranging from classic ciphers like Caesar cipher to modern day algorithms such as AES and RSA.

DURATION: 24 HOURS | EXAM CODE: ECES

COURSE PREREQUISITES

- The ECES program require the candidate to have one year of work experience in the Information Security domain and should be able to provide a proof of the same as validated through the application process unless the candidate attends official training.

COURSE OBJECTIVE

- What is Cryptography?
 - History
- Mono-Alphabet Substitution
- Caesar Cipher
- Atbash Cipher
- ROT 13
- Scytale
- Single Substitution Weaknesses
- Multi-Alphabet Substitution
- Cipher Disk
- Vigenère Cipher
- Vigenère Cipher: Example
- Breaking the Vigenère Cipher
- Playfair
- The ADFGVX cipher
- The Enigma Machine
- CrypTool

COURSE OUTLINE

- Types of Encryption Standards and their differences
- How to select the best standard for your organization
- How to enhance your pen-testing knowledge in encryption
- Correct and incorrect deployment of encryption technologies
- Common mistakes made in implementing encryption technologies
- Best practices when implementing encryption technologies

TARGET AUDIENCE

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.



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