EC-Council Network Defense Essentials (NDE)

Category: Networking & Security | **Vendor:** EC-Council

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Network Defense Essentials covers the fundamental concepts of information security and network defense. This introductory cybersecurity course is designed for today’s entry-level information security or cybersecurity career professionals and is ideal for learners aspiring to pursue a career in cybersecurity. The course gives a holistic overview of the key components of information security, which include identification, authentication, and authorization, virtualization and cloud computing, wireless networks, mobile and loT devices, and data security. The interactive labs component ensures that learners receive the hands-on, practical experience required for a future in cybersecurity. N|DE-certified learners have an assured means of formal recognition to add to their resumes and demonstrate their expertise and skills to prospective employers. Put your newly acquired abilities to the test with an exhilarating Capture the Flag (CTF) Exercise seamlessly integrated in our Capstone project. This CTF is seamlessly integrated by live virtual machines, genuine software, and real networks, all delivered within a secure and regulated sandbox environment. With these exclusive hands-on, human-versus-machine CTF challenges you will develop the hands-on proficiencies essential for success in your cyber professional role. The purpose of the N|DE certification is to recognize the competency and expertise of a professional in network defense and information security skills, thereby adding value to their workplace and employer.

About This Course

Network Defense Essentials covers the fundamental concepts of information security and network defense. This introductory cybersecurity course is designed for today’s entry-level information security or cybersecurity career professionals and is ideal for learners aspiring to pursue a career in cybersecurity. The course gives a holistic overview of the key components of information security, which include identification, authentication, and authorization, virtualization and cloud computing, wireless networks, mobile and loT devices, and data security. The interactive labs component ensures that learners receive the hands-on, practical experience required for a future in cybersecurity. N|DE-certified learners have an assured means of formal recognition to add to their resumes and demonstrate their expertise and skills to prospective employers. Put your newly acquired abilities to the test with an exhilarating Capture the Flag (CTF) Exercise seamlessly integrated in our Capstone project. This CTF is seamlessly integrated by live virtual machines, genuine software, and real networks, all delivered within a secure and regulated sandbox environment. With these exclusive hands-on, human-versus-machine CTF challenges you will develop the hands-on proficiencies essential for success in your cyber professional role. The purpose of the N|DE certification is to recognize the competency and expertise of a professional in network defense and information security skills, thereby adding value to their workplace and employer.

Who Should Attend

- School students, graduates, professionals, career starters and changers, IT / Technology / Cybersecurity teams with little or no work experience.
- High-school students who aspire to get an early start on their cybersecurity career and master the fundamentals of security online.
- College or University students who are preparing for a cybersecurity career and aiding their IT education.
- Working professionals who are preparing to start with cybersecurity or switch to the field from another domain.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Key issues plaguing the network security Essential network security protocols Identification, authentication, and authorization concepts Network security controls Fundamentals of virtualization, cloud computing, and cloud security Wireless network fundamentals, wireless encryption, and security measures Fundamentals of mobile and IoT devices and their security measures Cryptography and PKI Concepts Data security, data encryption, and data backup and data loss prevention techniques Network traffic monitoring for suspicious traffic

Detailed Course Outline

Module 01: Network Security Fundamentals

- Fundamentals of Network Security
- Network Security Protocols

Module 02: Identification, Authentication and Authorization

- Access Control Principles, Terminologies, and Models
- Identity and Access Management (IAM) Concepts

Module 03: Network Security Controls - Administrative Controls

Regulatory Frameworks, Laws, and Acts

Design and Develop Security Policies

Conduct Different Types of Security and Awareness Training

Module 04: Network Security Controls - Physical Controls

- Importance of Physical Security
- Physical Security Controls
- Workplace Security
- Environmental Controls

Module 05: Network Security Controls - Technical Controls

- Types of Network Segmentation
- Types of Firewalls and their Role
- Types of IDS/IPS and their Role
- Types of Honeypots
- Types of Proxy Servers and their Benefits
- Fundamentals of VPN and its Importance in Network Security
- Security Incident and Event Management (SIEM)
- User Behavior Analytics (UBA)
- Antivirus/Anti-Malware Software

Module 06: Virtualization and Cloud Computing

- Virtualization Essential Concepts and OS
- Virtualization Security
- Cloud Computing Fundamentals
- Insights of Cloud Security and Best Practices

Module 07: Wireless Network Security

- Wireless Network Fundamentals
- Wireless Network Encryption Mechanisms
- Types of Wireless Network Authentication Methods
- Implement Wireless Network Security Measures

Module 08: Mobile Device Security

- Mobile Device Connection Methods
- Mobile Device Management Concepts
- Common Mobile Usage Policies in Enterprises
- Security Risks and Guidelines Associated with Enterprises Mobile Usage Policies
- Implement Enterprise-level Mobile Security Management Solutions
- Implement General Security Guidelines and Best Practices on Mobile Platforms

Module 09: IoT Device Security

- IoT Devices, Application Areas, and Communication Models
- Security in IoT-enabled Environments

Module 10: Cryptography and PKI

- Cryptographic Techniques
- Cryptographic Algorithms
- Cryptography Tools
- Public Key Infrastructure (PKI)

Module 11: Data Security

- Data Security and its Importance
- Security Controls for Data Encryption 8
- Data Backup and Retention
- Data Loss Prevention Concepts

Module 12: Network Traffic Monitoring

- Need and Advantages of Network Traffic Monitoring
- Determine Baseline Traffic Signatures for Normal and Suspicious Network Traffic
- Perform Network Monitoring for Suspicious Traffic

Frequently Asked Questions

Q: What delivery options are available for EC-Council Network Defense Essentials (NDE)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 2-day EC-Council Network Defense Essentials (NDE) course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the EC-Council Network Defense Essentials (NDE) training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for EC-Council Network Defense Essentials (NDE)?

Yes, we provide corporate training, dedicated training, and closed classes for EC-Council Network Defense Essentials (NDE). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for EC-Council Network Defense Essentials (NDE)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your EC-Council Network Defense Essentials (NDE) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

© 2026 Nexus Human. All rights reserved. This brochure was generated on 14/11/2026.