



## Description

Intro to Cyber is a foundational course that introduces learners to the fundamental concepts of cybersecurity. The syllabus is designed to provide a comprehensive understanding of the diverse aspects of the digital networking and security landscape.

# INTRO TO CYBER

## Module 1: Intro to Networks

This module delves into the basic of digital communication. Learners will understand digital sizes and binary, the language of computers. The module also demystifies IP addresses, differentiating between private, public, and general addresses. Furthermore, it explores network services, common protocols, DNS, and DHCP, setting a firm foundation for understanding how digital networks operate.

Digital Sizes

Binary

### IP Addresses

Private Addresses

Public Addresses

General Addresses

### Network Services

Services

Common Protocols

DNS

DHCP

## Module 2: Network Security

This module offers a hands-on approach to understanding cybersecurity. Using tools such as Shodan and Google Dorks, learners will learn how to search the internet for sensitive information, demonstrating the vulnerability of digital data. The module also explores hashes, their uses, and different hash functions. Additionally, learners will familiarize themselves with encoding techniques like Hex and Base64, which play a significant role in data security.

### Shodan

Searching with Shodan

### Google Dorks

How Google Works

Basic Queries

Finding Sensitive Information

### Hash

The Use of Hash

Different Hash Functions

### Encoding

Hex

Base64

## Module 3: Network Data

This module gives an in-depth understanding of network data analysis. Through hands-on practice with Command Prompt and Wireshark, students will learn how to examine and interpret network traffic. The module also introduces the OSI and TCP/IP models, integral frameworks in understanding network communication. Lastly, learners will master the use of Wireshark filters and statistics for effective data analysis.

Command Prompt

OSI and TCP/IP Model

### Network Traffic

Wireshark Basics

Wireshark Filters

Wireshark Statistics