

BSc in Computer Network & IT Security

120 credits · 6 semesters · 3 years

Proposed curriculum framework for the CEIC website. The final syllabus, credit structure and course codes should be aligned with the program's approved university/academic regulations before publication.

Semester 1

Course	Credits
Programming Fundamentals	4
Computer Fundamentals & Architecture	4
Discrete Mathematics	3
Digital Logic	3
Academic English & Communication	3
Introduction to Networking	3

Semester 2

Course	Credits
Object-Oriented Programming	4
Data Structures & Algorithms	4
Operating Systems	3
Database Systems	3
Computer Organization	3
Network Fundamentals & Protocols	3

Semester 3

Course	Credits
Routing & Switching	4
Network Administration	3
Linux & Server Administration	3
Web Technologies	3
Information Security Fundamentals	3
Probability & Statistics	4

Semester 4

Course	Credits
Network Security	4

Course	Credits
Cryptography	3
Ethical Hacking	3
Wireless & Mobile Security	3
Virtualization & Cloud Infrastructure	3
Digital Forensics Fundamentals	4

Semester 5

Course	Credits
Penetration Testing & Vulnerability Assessment	3
Security Operations & Incident Response	3
Cyber Threat Intelligence	3
Secure Systems Administration	3
Cloud Security	4
Industry Internship / Practicum	4

Semester 6

Course	Credits
Advanced Network Design	3
Identity & Access Management	3
Security Governance, Risk & Compliance	3
Digital Forensics & Incident Response	3
Capstone Project I	4
Capstone Project II	4

Curriculum note: This document is a website-ready academic planning framework. Final course codes, credits, prerequisites, electives and graduation requirements must follow the officially approved syllabus and affiliation/regulatory requirements.