



American  
Open University  
Nigeria

UNDERGRADUATE PROGRAM | COLLEGE OF TECHNOLOGY

# Bachelor of Science in Cyber Security





## Program Info

The Bachelor of Science in Cybersecurity is a highly technical and defensive-focused program designed to produce experts in protecting digital infrastructures. Students learn to identify vulnerabilities, detect and respond to threats, and design secure systems to defend against the ever-evolving landscape of cyber-attacks. Students will engage in advanced projects in areas like ethical hacking, network defense, and digital forensics.

**4 Years**

Duration

**BSc Degree**

Credential

**Hybrid**

Delivery

**AI-Ready**

Specialization

### SPECIALIZATION FOCUS

Cybersecurity Analysts | Penetration Testers (Ethical Hackers) | Security Architects | Digital Forensics Investigators





## Program Objectives

The Bachelor of Science in Cybersecurity aims to:



Instill a deep understanding of network security, cryptography, and secure system design.



Develop practical, hands-on skills in penetration testing, threat hunting, and incident response.



Provide a strong foundation in risk management and compliance with global security standards.



Foster an ethical mindset for the responsible defense of information and digital assets.

## Expected Program-Level Outcomes

### EDUCATE

Students will understand the principles of information security, cyber defense techniques, and the attacker mindset.

### DEVELOP

Students will be able to use industry-standard tools to perform vulnerability assessments, analyze malware, and secure computer networks.

### GROW

Students will learn to think critically under pressure, communicate technical risks to leadership, and develop comprehensive security strategies.

### EMPOWER

Students will be prepared to take on leadership roles in security operations and protect organizations from significant financial and reputational damage.



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# Program Pathway for B.Sc. Cyber Security Advance Stage 1



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# Program Pathway for B.Sc. Cyber Security Advance Stage 1



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# Program Pathway for B.Sc. Cyber Security Advance Stage 2



# What You Will Learn

Students will build a comprehensive portfolio of skills, moving from foundational theory to specialized, real-world application.

1.

## Defensive Security Operations:

Master the techniques for monitoring networks, analyzing logs, and using Security Information and Event Management (SIEM) tools to detect threats.

2.

## Offensive Security and Penetration Testing:

Learn the attacker mindset by mastering ethical hacking techniques, performing vulnerability assessments, and exploiting system weaknesses.

3.

## Cybersecurity Engineering and Architecture:

Understand the principles of secure system design, cryptography, network security architecture, and identity and access management.

4.

## Digital Forensics and Incident Response:

Develop the skills to investigate security breaches, collect and preserve digital evidence, and manage the response to a cyber attack.





## Who You Will Become

Graduates of this program are prepared to be:

### Cybersecurity Analysts

who work in a Security Operations Center (SOC) to defend digital assets from active threats.

### Penetration Testers (Ethical Hackers)

who are hired by organizations to find and fix security vulnerabilities before malicious actors do.

### Security Architects

who design and build resilient, multi-layered defense systems for enterprise networks.

### Digital Forensics Investigators

who respond to cybercrime incidents and trace the source of an attack.

## EMPLOYMENT LANDSCAPE

## Where You Will Work

### Industries:

Cybersecurity, Financial Services, Government, Defense, Technology, Consulting.

### Certifications:

CompTIA Security+, Certified Ethical Hacker (CEH), Cisco CyberOps Associate, GIAC Security Essentials (GSEC).

### Career Trajectory:

Cybersecurity Analyst, Penetration Tester, Security Engineer, Incident Responder, Security Architect.



# Ready to Build the Future?

Apply now and join a program designed for the next generation of AI infrastructure leaders.

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