

Faculty of Sciences and Engineering (FSE)

Bachelor of Science in Cybersecurity (B.Sc. in CYBER)

I. Why Choose this Program?

As more and more people including business, government, and individuals increasingly rely heavily on technology, Cybersecurity is becoming a highly rewarding field that plays a vital role in protecting network systems, digital assets, from cyber threats. By taking this major, Students gain valuable knowledge in network security, ethical hacking, digital forensics, risk management, cyber defense, and cyber strategic & leadership. Cybersecurity major also provides a dynamic, future focused, and impactful career path with opportunities for continuous growth and advancement.

II. Future Career Prospects

Graduates from this program will be able to pursue careers such as:

1. Protect computer system, networks, and other digital asset from cyber threats
2. Conduct vulnerability assessments and penetration testing
3. Identify, assesses, and mitigates cybersecurity risks in organizations
4. Design and implement secure network and data security solutions
5. Apply cybersecurity principles, standards, and best practices to safeguard network system
6. Perform digital forensics investigations and analyze cybercrime evidence

III. Course Structure

The four-year program consists of **120 credits** and is structured to provide students with a comprehensive academic foundation through a well-balanced curriculum of foundation, functional, pre-major, and major courses.

To fulfill the graduation requirements, students must successfully complete the following coursework:

YEAR 1		
Course Title	Credits	Priority
English I: Reading and Composition	4	Required
Gender Studies	3	Required
Khmer Studies	3	Required
Digital Literacy + Lab	4	Required
English II: Reading and Composition	4	Required
History of Cambodia	4	Required
Environmental Science	3	Required
Introduction to Political Science	3	Required
YEAR 2		
Course Title	Credits	Priority
Personal Growth and Development	4	Required
Introduction to Technology and Innovation	3	Required
Linear Algebra	4	Required
Introduction to Cyber Security	3	Required
Cyber Law and Compliance	3	Required
Discrete Mathematics	4	Required
Data Structure and Algorithm	3	Required
Logic and Critical Thinking	4	Required
Computer Programming I	3	Required
YEAR 3		
Course Title	Credits	Priority
Database Design	3	Required
Wireless and Network Security	3	Required
Data Communication and Networking	3	Required
Introduction to IoT	3	Required
Cloud Computing	3	Required
Introduction to Ethics and Good Governance	3	Required

Database Management System	3	Required
Network System Administration	3	Required
Multimedia and Web Design	3	Required
Ethical Hacking	3	Required
YEAR 4		
Course Title	Credits	Priority
Statistics for Science	3	Required
Advance Cyber Security	3	Required
Object Oriented Programming	3	Required
Digital Forensics	3	Required
AI and Machine Learning	3	Required
Research Methodology	4	Required
Cyber Security Strategy and Leadership	3	Required
Mobile Application Development	3	Required
Blockchain and Distributed Ledger	3	<i>Elective</i>
Software Engineering	3	<i>Elective</i>
Blockchain and Distributed Ledger	3	<i>Elective</i>
Big Data Technologies	3	<i>Elective</i>
Computer Vision	3	<i>Elective</i>
Data Analysis and Visualization	3	<i>Elective</i>

****Note:** Students need to choose **ONE** elective course.*

GRADUATION PATH		
Option I: Senior Project	6	Required
Option II: Internship	6	Required
Option III: Exit Exam	6	Required

****Note:** Graduation Path: Students choose only **ONE** option.*