

# BACHELOR OF COMPUTER SCIENCE IN CYBER SECURITY WITH HONOURS

(N/0613/6/0022) (07/2028) (MQA/PA 16244)



## SECURE TOMORROW'S NETWORKS TODAY

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This programme is designed to equip students with the knowledge and skills needed to defend against cyber threats and safeguard digital systems. It focuses on preparing students to become skilled professionals in the field of cybersecurity.

Students learn to work with cybersecurity tools and design intelligent algorithms. They also study the importance of understanding the ethical and legal implications of cybersecurity practices. Additional topics include Software Security, E-Commerce Security and Cryptography.

Upon completion of the programme, graduates are well-prepared to protect organisations and individuals from the ever-evolving landscape of cyber threats.

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COURSE DURATION  
AND MODE

3 years (Full-time)

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COURSE LOCATION

Kuala Lumpur campus

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INTAKES

January, May and September

## COURSE SYLLABUS

### Year 1

- Introduction to Programming
- Discrete Mathematics
- Computer Organisation and Architecture
- Computer Security
- Object-oriented Programming
- Mathematics for Cyber Security
- Introduction to Internet Technologies
- Cloud Computing
- Cooperative Placement 1

### Elective Course

- Database Management Systems

### Year 2

- Data Structures and Algorithms
- Introduction to Human Computer Interaction
- Operating Systems
- Security Management
- Introduction to Cryptography
- Software Security
- System Analysis and Design
- Networking
- Research Methods in Computing
- Cooperative Placement 2

### Elective Course (Choose 2)

- Database Design
- Business System Development Tools
- Mobile Commerce
- Software Project Management

### Year 3

- Information Systems Risk and Security
- Project Formulation
- Application Layer Programming
- Network Security
- Project Design and Implementation
- Network Security Design
- Intelligent Systems
- Computer Forensic
- E-Commerce Security
- Cooperative Placement 3

### Elective Course (Choose 1)

- Programming for Computer Science
- Web Programming
- Fuzzy System and Evolutionary Computing

## ENTRY REQUIREMENTS

- A pass in Matriculation or Foundation studies with a minimum CGPA of 2.00; OR
  - A pass in STPM with a minimum grade of C (CGPA 2.00) in any two (2) subjects or any equivalent qualification; OR
  - A pass in STAM with a minimum grade of Jekyllid in any two (2) subjects;
- AND a credit in:
- Additional Mathematics at SPM level or its equivalent; OR
  - Mathematics and any one (1) of the Science, Technology or Engineering subjects at SPM level or its equivalent.

### ENGLISH LANGUAGE REQUIREMENT:

- Achieve a minimum score of 5.0 in the IELTS or equivalent.

*Note: If candidates do not meet this requirement, the HEP must offer English proficiency courses to ensure that their proficiency is sufficient to meet the needs of the programme.*

## CAREER OPPORTUNITIES

- Cybersecurity analyst
- Cybersecurity engineer
- Cryptography engineer
- Ethical hacker
- Computer forensics analyst
- Penetration tester
- Information security consultant
- Information security analyst
- Malware analyst
- Chief Information Security Officer (CISO)
- Security operations centre (SOC) analyst
- Security architect
- Security systems administrator

**UCSI EDUCATION SDN BHD** [198901008177 (185479-U)] Kuala Lumpur • Kuching • Springhill (Seremban/PD) • Bangladesh

**UCSI University Kuala Lumpur Campus** DU020(W)

No.1, Jalan UCSI, UCSI Heights (Taman Connaught), 56000 Cheras, Kuala Lumpur, Malaysia.

**T** (03) 9101 8882

**W** UCSIUNIVERSITY.EDU.MY

**f** UCSI UNIVERSITY **@** UCSIUNI **✉** info.enq@ucsiuniversity.edu.my

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