

B.Sc (Hons)

CYBERSECURITY (3+0)

(MQA/PA17554) (N/0613/6/0093)

PROGRAMME DESCRIPTION

This programme offered through collaboration between UNIKOP College and Abertay University, is designed to equip students with advanced knowledge and practical skills in cybersecurity. This programme prepares students to effectively design, manage, and implement cybersecurity strategies and technologies to protect digital assets and mitigate cyber threats. This programme will empower the students with the ability to meet the demands of the job market in the field of computer security. Graduates of cyber security specialists are capable of accommodating their organisations to secure computer and network resources.

CAREER PROSPECTS

- Security Administrator
- Forensic Analyst
- Network Security Engineer
- Cybersecurity Analyst
- Programmer
- IT Support Specialist
- Ethical Hacker/Penetration Tester
- Security Consultant

DURATION OF STUDIES:

3 Years (9 Semesters)

COMPULSORY SUBJECTS FOR MALAYSIAN STUDENTS

- Philosophy & current issue
- Appreciation of Ethics & Civilization
- Bahasa Kebangsaan
- Leadership skills.
- Integrity & Anti-corruption

*Students need to complete three modules from the above.

COMPULSORY SUBJECTS FOR INTERNATIONAL STUDENTS

- Bahasa Melayu Komunikasi
- Leadership Skills
- Integrity & Anti-corruption

AWARDING BODY



WHAT SKILLS WILL YOU DEVELOP?

- Graduates will be equipped with a comprehensive understanding of cybersecurity principles, concepts, and technologies, enabling them to effectively analyze cybersecurity threats and vulnerabilities.
- Graduates will be provided with hands-on experience in designing, implementing, and managing cybersecurity solutions, policies, and practices that address real-world security challenges in diverse organizational contexts.
- Graduates possess the skills and certifications necessary for entry-level positions in cybersecurity roles such as cybersecurity analyst, incident responder, network security specialist, and ethical hacker.

PROGRAMME STRUCTURE

SEMESTER 1

- Computer Hardware Architecture and Operating System
- Programming with C++
- Being Successful at Abertay
- Successful Writing at Abertay
- Research and Enquiry Skills for the Digital Age
- How to Sell Your Ideas!

SEMESTER 2

- Software Design
- Computer Networking 1
- Fundamentals of Development and Security

SEMESTER 3

- Data Structures and Algorithms 1
- Application Design

SEMESTER 4

- Penetration Testing
- Data Structures and Algorithms 2
- Designing For the Users
- Sustainability 101
- Artificial Intelligence and Society
- Co-create (Negotiated Studies) OR
- Being Successful at University (advance entry)

SEMESTER 5

- Computer Networking 2
- Web Application Penetration Testing
- Software Engineering Practice
- Fundamentals of Machine Learning

SEMESTER 6

- Secure Software Engineering
- Advanced Ethical Hacking

SEMESTER 7

- Industrial Training

SEMESTER 8

- Human-Centred Security
- IOT and Cloud Secure Development
- Mathematics For Cyber Security

SEMESTER 9

- Honours Project Proposal and Execution
- Honours Project Dissertation