

MASTER OF SCIENCE IN CYBERSECURITY ENGINEERING

Degree Level: Postgraduate



Qualification type	Location	Study mode	Delivery Language	Duration
Master of Science	Main Campus	Full Time	English	Two Years

KEY FACTS

SDG



Contact Persons

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OVERVIEW

Master of Science in Cybersecurity Engineering (MCSE) programme covers different aspects related to Cybersecurity architecture and design, Advanced Networking, Security Management, Software Security and Testing, Research Methods & Modeling etc.

The programme is designed to be placed on NQF level 9 with a total of 36 credits, equal to 144 NQF credits.

The originality of this academic programme is to equip learners with applied knowledge related to Cybersecurity including a variety of courses related to Digital Forensic, Artificial Intelligence, Ethical Hacking, Cloud Computing and more.

PROGRAMME AIMS

- To be equipped with critical knowledge and understanding related to Cybersecurity Engineering.
- To be equipped with applied knowledge to exercise professional and ethical judgment in the practice of Cybersecurity Engineering.
- To be equipped with critical evaluation skills develop to evaluate current trends related to Cybersecurity Engineering in the practice of the profession based on the latest evidence.

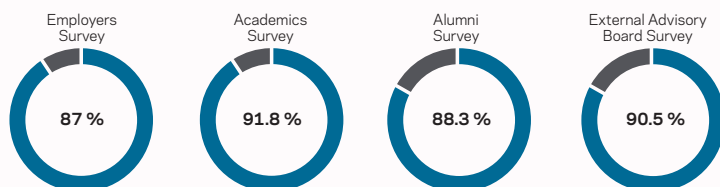
PROFESSIONAL PATHWAYS

- PhD in IT, Computing, Engineering or any related fields
- Cybersecurity Professional Certificates

EMPLOYABILITY & CAREER PATHWAYS

- Cyber Security Architect
- Cybersecurity Specialist
- Assistant Specialist, Cybersecurity
- Cybersecurity Lead
- Ethical Hacker

GENERAL STATISTICS



ENTRY REQUIREMENTS

Admission to Ahlia University (AU) is competitive and based on academic achievements. Applications are welcome from all students, regardless of race, colour, gender, religion, nationality, or physical or learning disability. Admission is purely based on merit.

General Requirements

1. Applicants for a postgraduate degree must have completed a bachelor's degree at an accredited institution of higher education.
2. An interview with a relevant specialised committee is required for admission to all postgraduate programmes.
3. The final decision of the applicant's admission to the relevant programme will be based on the merit list of the applicants.
4. The applicant must be medically fit for the academic programme they wish to enrol in.

Specific Requirements

In addition to the previously mentioned criteria, the following are specific criteria to each graduate programme and the student must meet those criteria to be eligible for such programme:

A recognised and endorsed bachelor's degree or its equivalent in the following disciplines:

- Information technology (IT)
- Computer Science
- Management Information System (MIS)
- Information Systems (IS)
- Informatics
- Any related engineering specialty (electrical, communication, computer, etc.)
- Mathematical sciences
- Any other IT related field.

Applicants holding an endorsed bachelor's degree in disciplines other than those listed above may be required to take foundation courses, based on recommendations of the interview committee.

CGPA Requirement

- A minimum CGPA at the bachelor's degree level of 2.5 or its equivalent.
- Applicants with CGPA lower than 2.5 but ≥ 2.0 or its equivalent at the bachelor's degree level may be considered for admission, based on recommendations of the interview committee.

Interview

All applicants must pass an interview. Applicants will be assessed based on the interview rubric and must score a minimum of 70% to be accepted.

Experience and Professional Courses/Certificates

Applicants who hold a recognised and endorsed bachelor's degree in disciplines other than the ones mentioned above and have work experience of at least one year and/or have professional certificates related to the field of IT, Computer Science, Computing or Engineering, may be exempted from the foundation courses and accepted directly to the programme (NQF placed at level 9 will be accepted for exemption).

Transferred Students

Applicants transferring from other postgraduate programmes will be subject to the above admission criteria and may receive exemption from equivalent courses completed in their former programme in line with Ahlia University External Transfer Policy.

Language Requirements

Applicants who earned their bachelor's degree from a programme where English is not the language of instruction must submit one of the following qualifications to meet AU English proficiency requirements:

Criteria	Score
TOEFL	≥ 550 or its equivalent
IELTS	≥ 6.0 or its equivalent
Pass Ahlia University English Placement Test	$\geq 70\%$

PROGRAMME CONTENT & STRUCTURE

The programme comprises 36 credit hours distributed as follows: 18 credit core courses, 6 credit electives and 12 credit dissertation

MCSE - YEAR 1				Credit Hours
Semester 1				
ITCY	511	Cryptographic and Authentication Techniques		3
ITCY	512	Cybersecurity architecture and design		3
ITCS	527	Advanced Networking		3
Semester 2				
ITCY	522	Security Management		3
ITCY	521	Software Security and Testing		3
ITCS	550	Research Methods & Modeling		3
MCSE - YEAR 2				Credit Hours
Semester 1				
ITCS/ ITCY	5xx	Elective		3
ITCS/ ITCY	5xx	Elective		3
Dissertation				
ITCY	599	Dissertation in Cybersecurity Engineering		12

MAJOR ELECTIVE COURSES

ITCS	539	Digital Forensics		3
ITCS	509	Artificial Intelligence		3
ITCS	526	Cloud Computing		3
ITCY	526	Ethical Hacking		3
ITCY	531	Malware Analysis and Engineering		3
ITCY	549	Selected Topics in Cyber Security		3

FEES

Application Fee	BD 40
Registration Fee	BD 300
HEC ID fees	BD 30
Subject Fees (24 credits, BD 200 per credit hour) (8 Courses, BD 600 per course)	BD 4,800
Thesis Fee (12 credits, BD 200 per credit)	BD 2,400
TOTAL	BD 7,570
Additional fees chargeable	
Foundation Courses (if applicable) 2 Courses (BD 480 per course)	BD 960