UCSI University

BACHELOR OF COMPUTER SCIENCE IN ARTIFICIAL INTELLIGENCE WITH HONOURS

(N/0613/6/0023) (07/2028) (MQA / PA 16245)

DECODE THE FUTURE OF AI

This programme aims to provide students with a comprehensive education and skillset in the field of artificial intelligence (AI). It covers an understanding of the principles, theories and applications of AI.

Throughout the programme, students will develop skills with a focus on the latest advances in various aspects of AI. These aspects include Intelligent Systems, Machine Learning, Natural Language Processing, Computer Vision, Image Processing, Cloud Computing, Web Programming and Database Technology.

Students will be trained to work with AI tools. They will be taught to design intelligent algorithms and study evolutionary computing. Additionally, they will use cutting-edge tools and technologies to solve complex problems and find smart AI solutions.

COURSE SYLLABUS

Year 1
- Introduction to Programming
- Discrete Mathematics
- Computer Organisation and Architecture
- Database Management Systems
- Mathematics 1 for AI (Linear Algebra)
- Object-oriented Programming
- Introduction to Internet Technologies
- Knowledge Representation and Reasoning
- Information Systems Risk and Security
- Cooperative Placement 1

Year 2
- Data Structures and Algorithms
- Database Design
- Operating Systems
- Mathematics 2 for AI (Calculus)
- Introduction to Human Computer Interaction
- Machine Learning
- Ethics in AI
- Recommender Systems
- Networking
- Software Project Management
- Database Technology
- Cooperative Placement 2

Year 3
- Programming for Computer Science
- Fuzzy System and Evolutionary Computing
- Project Formulation
- Application Layer Programming
- Project Design and Implementation
- Image Processing
- Intelligent Systems
- Natural Language Processing
- Web Programming
- Cloud Computing
- Cooperative Placement 3

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 Jayyid 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 REQUIREMENTS:

- 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

- Machine learning engineer
- Computer vision engineer
- Natural language processing (NLP) specialist
- AI data scientist
- AI data analyst
- AI data engineer
- AI ethics specialist
- AI research scientist
- AI software engineer
- Robotics engineer
- Business intelligence developer