

# Master of Science in Artificial Intelligence





# Overview

The M.Sc. in Artificial Intelligence (MSAI) programme is created for students who wish to develop, design and implement AI systems and at the same time cultivate a deep understanding of AI for project management and policy making. The programme emphasizes on AI theory, techniques and tools to solve real world problems with multiple types of constraints, e.g. problems with limited training data and big data problems. Equipped with both theoretical and activity-based learning, this will allow graduates to upgrade their competencies and skills. The core courses focus on the foundations of AI knowledge, such as machine learning and deep learning, while a wide range of elective courses in different domains, such as image, video, text and IoT data are available to deepen understanding and knowledge in this specialization.



Leading edge and up-to-date curriculum



World-class faculty from NTU School of Computer Science and Engineering (SCSE) and other disciplines



Opportunities to work with AI faculty members in SCSE for research or industrial related projects.



Hands-on experience from course projects.



# Programme Structure

- The MSAI programme is an intensive 1-year full-time (or 2-year part-time) programme by coursework. Students will be awarded the Master of Science in Artificial Intelligence after completion of study.
- The programme consists of a total of 30 Academic Units (AUs), with 12 AUs stemming from core courses and 18 AUs from master project and four groups of elective courses, covering general AI techniques and techniques especially for image, video, IOT and time series data.
- Each course is 3 AUs with 39 teaching hours, including lectures, tutorials, example classes and labs over 13 weeks. The master project of AI is a one year project with 6 AUs. The master project is not a compulsory component.
- The bridging course, Python Programming, has no AU. This is for students who have graduated from bachelor programmes with limited programming training and working adults who do not usually write codes. All students are able to take the bridging course in their first semester. It is not a compulsory course.



## Compulsory Courses

Introduction to AI and AI Ethics

Machine Learning: Methodologies and Applications

Deep Learning and Applications

Mathematics for AI



## Elective Courses

### AI Techniques

- Neuro Evolution and Fuzzy Intelligence
- Multi-Agent System

### AI for IOT Data

- Urban Computing
- Time Series Analysis

### Project

- Master Project of AI

### AI for Text

- Deep Neural Networks for Natural Language Processing
- Text Data Management and Processing

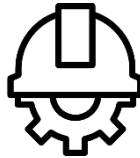
### AI for Image and Video Processing

- Computer Vision
  - Advanced Computer Vision
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## Admission Requirements



Or



A) A good honours degree in computer science, computer engineering or a related discipline with solid mathematical training

B) A good bachelor's degree in computer science, computer engineering or a related discipline with solid mathematical training and 2 years relevant industry experience and

Minimum TOEFL score (Internet-based = 100, paper-based = 600, computer-based=250) or IELTS score (6.5) for graduates of universities in which English is not the medium of instruction.

## Timeline of August Intake



## Programme Fee

- Singapore Citizens \$39,000
- Singapore Permanent Residents \$46,500
- International Students \$58,000
- NTU alumni enjoy 10% discount



## Contact Us

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