



School of Mechanical & Aerospace Engineering

MSc Aviation

Overview

The MSc (Aviation) programme at NTU prepares professionals for the fast-evolving aviation industry, focusing on AI-driven management, digitalized operations, and cutting-edge technology. From electric vertical take-off and landing (EVTOL) aircrafts to AI-powered data analytics and 3D printing, the programme equips students with the skills to lead in this dynamic field. With expert faculty and industry insights, students will gain in-depth knowledge and practical expertise to tackle the challenges and embrace the opportunities of modern aviation.

Who should apply

The programme is ideal for engineering graduates (e.g., Aerospace, Mechanical, Electrical and Computer Science) and professionals looking to specialize in the aviation industry or advance their careers with the latest industry knowledge. The programme is also suited for those aiming for leadership roles, providing critical perspectives into aviation management and decision-making.

Graduates can pursue diverse career opportunities in areas such as Aerospace, Automation, Aircraft Manufacturing, Air Traffic Management, Aviation Safety, and AI-driven aviation solutions.

PROGRAMME STRUCTURE

Option 1: Coursework Only (Default Option)

10 Courses

4 Core & 6 Electives

Option 2: Coursework and Dissertation

8 Courses + Dissertation

4 Core & 4 Electives

DURATION OF THE PROGRAMME

Part-Time Study

Minimum Candidature: 2 years (4 semesters)

Maximum Candidature: 4 years (8 semesters)

Full-Time Study

Minimum Candidature: 1 year (2 semesters)

Maximum Candidature: 2 years (4 semesters)

CORE COURSES

MA6901: EVTOL Aircraft Design

MA6902: Aircraft Operations

MA6903: Aviation Safety and Human Factors

MA6904: Air Transportation Systems

ELECTIVE COURSES

MA6911: Flight Navigation and Control

MA6912: Future Aviation Technology

MA6514: Machine Learning and Data Science

MA6702: Corporate Resource Planning

MA6914: Airline Management and Economics

MA6712: Procurement & Supplier Development

MA6704: Management of Logistics Functions

MA6913: Composites in Aviation

MA6502: Fundamentals & Advances in Additive Manufacturing

UNIQUE FEATURES:

Diverse Laboratory and Research Opportunities

Students have access to NTU's extensive research resources, including the **Air Traffic Management Research Institute (ATMRI)**, where they engage in pioneering projects such as AI-driven air traffic management, urban aerial transport systems, and emerging aviation technologies. This blend of lab-based learning and research opportunities empowers graduates to lead and innovate in the fast-evolving aviation industry.



Learn more



PROGRAMME DIRECTOR

Assoc Prof New Tze How, Daniel

Email: mae.msc@ntu.edu.sg