

Programme Aims

- To provide advanced education and training for students who intend to upgrade their knowledge and to seek a higher-level career in the area of Aviation and Aeronautical Engineering;
- To enable students to develop their competence to increase their competitiveness in the job market and become the backbone in aviation industry;
- To enable students to have good understanding and mastering of the most up-to-date advanced technologies in the area of Aviation and Aeronautical Engineering; and
- To enable students to apply their learned knowledge and skills to solve problems encountered in practice.

Entrance Requirements

A Bachelor's degree with Honours in engineering, science or technology, or qualifications that satisfy the academic requirements for Corporate Membership of the Hong Kong Institution of Engineers (HKIE), or the equivalent.

Consideration will also be given to candidates without Honours degrees who have other relevant qualifications and/or appropriate work experience.

Applicants who are not native speakers of English, and the Bachelor's degree or equivalent qualification is awarded by institutions where the medium of instruction is not English, they are expected to fulfil the following minimum English language requirement:

- A Test of English as a Foreign Language (TOEFL) score of 80 for the Internet-based test or 550 for the paper-based test; OR
- An overall Band Score of at least 6 in the International English Language Testing System (IELTS).



Enquiries

Application and Admission
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Programme Information

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July 2023 | For 2024/25 Admission

Remark: Information presented in this leaflet is subject to changes and does not form part of any contract between the University and any person.

Master of Science in Aviation Engineering

Programme Code: 48004

The global aviation industry was growing at a rapid pace before the pandemic, and it is forecast to continue its growth momentum once the world resumes normal activities. Asia, especially China is the key contributor and stakeholder in this growth. The worldwide demand for qualified managers, engineers and researchers in this industry is enormous. This programme provides advanced education and training for students who intend to upgrade their knowledge and seek higher-level career in Aviation and Aeronautical Engineering.

Master of Science in Aviation Engineering

Award Requirements

For MSc in Aviation Engineering, students must complete:

- a) 7 taught subjects, including at least 4 AAE Core Subjects, and a Dissertation; OR
- b) 10 taught subjects, including at least 6 AAE Core Subjects.

For MSc in Aviation Engineering (Aviation Operations and Management), students must complete:

- a) 7 taught subjects, including at least 4 AAE Core Subjects in the Specialism of Aviation Operations and Management, and a Dissertation; OR
- b) 10 taught subjects, including at least 6 AAE Core Subjects in the Specialism of Aviation Operations and Management.

For MSc in Aviation Engineering (Aeronautical Engineering), students must complete:

- a) 7 taught subjects, including at least 4 AAE Core Subjects in the Specialism of Aeronautical Engineering, and a Dissertation; OR
- b) 10 taught subjects, including at least 6 AAE Core Subjects in the Specialism of Aeronautical Engineering.

Important Dates

Period of application: 21 September 2023 – 30 April 2024

Commencement of study: Early September 2024

Financial Aid and Scholarships

Maritime and Aviation Training Fund (MATF)

This programme is a pre-approved course of the **Professional Training and Examination Refund Scheme (ProTERS) (Aviation)**; and an eligible programme of the **Hong Kong Aviation Scholarship Scheme**. Students who are eligible and enrolled in this programme can apply for these schemes, which are operated under MATF and supported by the Transport and Logistics Bureau. For details, please refer to the [official website](#) of MATF.

Continuing Education Fund (CEF)

Several subjects under the programme have been included in the list of reimbursable CEF courses. Please refer to the table in the next page for more details.

Departmental Dissertation Scholarship

Merit-based Scholarships* are available for students who opt to complete a 9-credit dissertation.

**PolyU reserves the right to change or withdraw a scholarship at any time. In the case of any dispute/disagreement, PolyU's decision is final.*

Programme Characteristics

The programme is designed to give students the maximum degree of flexibility while ensuring reasonable cost-effectiveness in its running. After enrolling in the MSc in Aviation Engineering, students can select a wide range of subjects offered under the programme in Engineering.

Students can also select a combination of subjects that leads to graduation with a Specialism Award. The two specialisms in the proposed MSc programme, which focus on different aspects of aviation engineering, will provide students unique opportunities to become qualified and competitive professionals in aviation and aeronautical engineering, both locally and globally.



Each taught subject corresponds to three credits and the dissertation corresponds to nine credits.

Specialism	Core Subject
Aviation Operations and Management	Guidance, Navigation and Advanced Avionics System 
	Human Factors, Accident Prevention and Aircraft Maintenance 
	Next Generation Air Traffic Control and Air Traffic Flow Management 
	Operations Research, Resource Planning and Engineering Management in Aviation 
	Artificial Intelligence in Aviation Industry 
	Aviation Engineering Services and Aircraft Leasing Management 
	Flight Standards and Airworthiness 
	Fleet Management and Aviation Sustainability 
Aeronautical Engineering	Guidance, Navigation and Advanced Avionics System 
	Human Factors, Accident Prevention and Aircraft Maintenance 
	Aerodynamics and Computational Fluid Dynamics 
	Advanced Aircraft Structures and Materials 
	Aircraft Design and Certification 
	Autonomous Flight - Mechanics and Control 
Aircraft Engine Systems and Combustion 	



- i. The subjects have been included in the list of reimbursable courses under the Continuing Education Fund (CEF) for the part-time Master of Science in Aviation Engineering programme.
- ii. The Master of Science in Aviation Engineering programme is recognized under the Qualifications Framework (QF Level 6).