Entrance Requirements

For JUPAS applicants

Applicants shall satisfy the University's General Entrance Requirements of 4 core and 2 elective subjects with:

- · Level 3 in English Language and Chinese Language; and
- Level 2 in Mathematics and Liberal Studies; and
- Level 3 in two elective subjects including Extended Modules of Mathematics (M1/M2)#.

([#]Note: If students have taken both M1 and M2, they will only be considered as one subject and the best grade will be taken into consideration during admission selection.)

Admission Score Calculation Mechanism

Any Best 5 Subjects

The "best" 5 weighted HKDSE subjects will be taken into account. (Please visit Study@PolyU website for further details and explanation.)

Subjects with the Highest Weighting

We give the highest weighting in the calculation of admission scores to the following subjects:

- English
- Mathematics
- Extended Modules of Mathematics
- Information & Communication Technology
- · All single and combined Science subjects (except Biology)



Enquiries

Application and Admission Email: ar.ug@polyu.edu.hk Website: www.polyu.edu.hk/study (Study@PolyU)

Programme Information

Dr L. T. Hsu **Programme Leader of** Department of Aeronautical and Aviation Engineering Tel: 3400 8061 Email: lt.hsu@polyu.edu.hk Website: https://www.polyu.edu.hk/aae/

April 2021

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

For non-JUPAS applicants

We welcome applicants holding the qualifications of HKALE, GCEAL, IB, Associate Degree, Higher Diploma and other non-local qualifications. Please visit Study@PolyU website for details of entrance requirements. For those who are applying on the basis of other qualifications, applications will also be considered on a case-by-case basis.

For International Students and Chinese Mainland Joint Entrance Examination (JEE) Students

Please visit Study@PolyU website for details of entrance requirements and application schedule.



autical and Aviation Engineering 及民航工程學系

Bachelor of Engineering (Honours) in Aviation Engineering 航空工程學(榮譽)工學士學位 (JUPAS Programme Code: JS3507)

Hong Kong is a premier regional and international hub. It has one of the busiest airports in the world. Being situated at the centre of aviation's fastest growing region in the world, Hong Kong and its local region is facing a serious shortage of infrastructure, gualified aircraft engineers, airport operation, airline and aviation logistic professionals to serve the growing needs in an efficient, sustainable and safe manner.

In view of the pressing professional manpower demand of the aviation industry, since 2016/2017 the Hong Kong Polytechnic University (PolyU), with the support of the HKIE, the local aviation and aircraft maintenance industries, has launched this 4-year degree programme in Aviation Engineering that aims to play a major role in the education and training of high skilled aviation and aeronautics professionals.

Opening Minds • Shaping the Future • 啟迪思維 • 成就未來

Bachelor of **Engineering (Honours) in Aviation Engineering** 航空工程學(榮譽)工學士學位

(JUPAS Programme Code: JS3507)

The Aviation Engineering programme aims at training students to become engineers with a broad understanding of both engineering and management operation of the aviation industry.

In this programme, students receive a broad-based knowledge of science and engineering in the first year which will prepare them to lay a strong foundation to learn aviation engineering related subjects in the upper years. In the second year, they will acquire basic knowledge in aircraft and aviation systems and also have hands-on experience in aircraft component and manufacturing processes. In the third year, students will embark on more advanced subjects such as aircraft design, safety, control and propulsion systems. In the final year (ie. the fourth year of the normal study pattern), they have the opportunity to focus study on a chosen stream to acquire specialized knowledge in a specific area of aviation engineering. Possible study streams include (a) Aircraft Maintenance Engineering; (b) Aeronautical Engineering, (c) Aviation Services Engineering and (d) Introduction to Pilot Ground Theory.

Summer internships, technical visits and on-site experience sharing may be arranged to enhance students' learning and work experience in the industry.





This programme aims to provide students and produce highly skilled graduates with:

- 1. In-depth understanding of the operation of aviation engineering including aircraft and aviation systems, airworthiness and up-to-date technologies, as well as specialized knowledge in a chosen stream of study.
- 2. Competence to handle different engineering problems academically and practically in the aviation industry.
- 3. Sufficient knowledge to manage and solve problems through effective and efficient project management and planning.
- 4. Confidence in communication with different stakeholders by the use of state-of-the arts technologies and aviation language (both English and Chinese).

Professional Recognition

This programme has been granted provisional accreditation by the Hong Kong Institution of Engineers (HKIE). Full accreditation will be sought in 2020.

Career Prospects

Graduates will be able to seek employment as professional engineers in aviation engineering fields including aircraft component and system design, manufacturing and maintenance organisations, in air transportation and logistics organisations, airport engineering operation, and civil aviation authorities. Graduates can also find employment opportunities in other engineering related industries such as engineering consultancy firms, environmental, electronic and manufacturing industries, information technology and education sectors, and government departments.

Programme Structure

Total 124 acad

Year 1		Year 2	
Semester 1 (15 credits)	Semester 2 (18 credits)	Semester 1 (15 credits)	Semester 2 (15 credits)
Basic Mathematics I	Basic Mathematics II	Mathematics I	Mathematics II
Physics I	Physics II	Fundamentals of Materials Science and Engineering / Biology / Chemistry	Fundamentals of Electrical and Electronic Engineering
Freshman Seminar for Engineering	Information Technology	Computer Programming	Mechanics of Materials
Introduction to Aircraft and Aviation Systems	Leadership and Intra- personal Development ^	Engineering Mechanics	Language & Communication Requirements III ^
Language & Communication	Cluster Area	Cluster Area	Cluster Area
Requirements I ^	Requirements I^	Requirements II^	Requirements III ^
	Language & Communication Requirements II ^	Appreciation of Aircraft Manufacturing Processes (3 training credits)	
Engineering Communication and Fundamentals or			
Aircraft Manufacturing and Maintenance Fundamentals		Yes	ar A

(4 training credits) Healthy Lifestyle (non-credit bearing) ^

Year 3

Semester 1 (17 credits)	Semester 2 (15 credits)
Professional Communication	Engineering Economics
in English for Engineering	
Students (2 credits)	
Fundamentals of	Aviation Safety and
Aerodynamics	Reliability
Aircraft Structures and	Avionics Systems
Materials	
Dynamical Systems and	Aircraft Propulsion
Control	Systems
Cluster Area	Flight Mechanics and
Requirements IV ^	Control Systems
Service Learning ^	
Aircraft Man	ifacturing and

Maintenance Practice (3 training credits)

Elective Subjects

Students are required to select four subjects from a pool of electives. The electives are classified into four study streams.

Through the choice of electives, students will acquire specialized knowledge in a specific area of aviation engineering.



Engineering

Aviation Services

Stream

Aeronautical Engine

Aircraft Maintenance [priority will be given a who opt for HKAR-14

ntroduction to Pilot G Students who are int attend the Airline Trai Licence (ATPL) upon strongly recommend these four electives]

Semester 1 (14 credits)	Semester 2 (15 credits)	
Chinese Communication for	Engineering	
Aviation (2 credits)	Management	
Airworthiness and	Society and the Engineer	
Regulations		
Elective Subject (1)	Elective Subject (3)	
Elective Subject (2)	Elective Subject (4)	

Capstone Project (6 credits)

Note1: Students without attaining Level 2 or above in HKDSE Physics, or equivalent qualifications, are required to take an extra subject "Introduction to Physics".

Note2: Each subject carries 3 credits unless otherwise specified.

^Those are General University Requirements (GUR) including Language & Communication Requirements (LCR) and Cluster Area Requirements (CAR).

;	Elective Subjects
	 Aviation Project Management Airport Services Engineering Aircraft Leasing and Finance Aviation Finance, Taxation and Insurance Systems Modeling and Simulation Data Management in Aviation Industries Aircraft Service Engineering and Logistics
ng	 Engineering Composites Compressible Aerodynamics Flight Control Systems Electronics & Information Technologies for Unmanned Aerial Systems Guidance and Navigation Advanced Positioning and Navigation Systems
ingineering students 7 training]	 Aircraft Gas Turbine Engine Systems Aircraft Inspection and Testing Aircraft Maintenance Practices Aircraft Propeller
ound Theory rested to sport Pilot's traduation are I to attend	 Advanced Positioning and Navigation Systems Pilot Ground Theory Human Factors in Aviation Meteorology in Aviation