Temasek POLYTECHNIC

Aerospace Electronics

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Overview

You will undergo a rigorous aerospace training programme, which includes practical modules offered together with world renowned aircraft maintenance training provider, Lufthansa Technical Training (LTT) of Germany, and you will be equipped with both the fundamental and applied knowledge for aircraft electrical, communication, navigation and flight control systems.

The rigorous curriculum and training, coupled with our reputation as a SAR-147 Approved Maintenance Training Organisation (AMTO), will enable you to tap into opportunities in the recovering aerospace sector, which at its peak reached an output worth S$9 billion annually and hired about 21,000 workers spread across more than 100 local and international companies in Singapore.

If you aspire to be a pilot, you can also fulfil your dream by taking flying lessons as part of your Student Internship Programme in your final semester of study, to get that coveted Private Pilot Licence (PPL).

Career Opportunities

As the aviation sector recovers rapidly from the COVID-19 pandemic, there will be an increasing demand for highly skilled and licensed aircraft engineers (LAE) who are certified to work in aviation companies such as SIA Engineering Company, ST Aerospace, Jet Aviation, and large multi-national corporations in the maintenance, repair and overhaul (MRO) sector.

In your final year, you will have the chance to be attached to reputable aerospace companies for your internship, giving you priceless practical experience and a head-start in your career.

You can be employed in sectors such as aircraft MRO, avionics testing and measurement, as well as the development, manufacturing or technical sales of aircraft systems and components.

Exciting jobs for you include:

- Aircraft Maintenance Engineers
- Avionics System Specialists
- Avionics Test Engineers
- Process / Quality Engineers

Entry Requirements

5 GCE 'O' Level subjects comprising:

English Language (EL1)	(Grades 1-7)
Mathematics (E or A Maths)	(Grades 1-6)
One of the following subjects *	(Grades 1-6)
Any two other subjects (except CCA)	--

** Biology, Biotechnology, Chemistry, Combined Science, Computing / Computer Studies, Design & Technology, Electronics / Fundamentals of Electronics, Physics / Engineering Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry) / Physical Science.*

Note: Applicants should not be suffering from mild or severe colour vision deficiency, uncontrolled epilepsy, profound hearing loss, severe vision impairment or any physical impairment, or be physically dependent on mobility equipment.

Diploma Core Subjects

Year 1:

- Avionic Systems
- Circuit Analysis
- Computer Programming for Problem Solving
- Digital Fundamentals 1 & 2
- Electronic Devices & Circuits
- Engineering Mathematics 1 & 2
- Engineering Physics

Year 2:

- Aerospace Maintenance Practices
- Aircraft Electrical Fundamentals
- Aircraft Electronics & Servomechanisms
- Data Visualisation & Analytics
- Engineering Mathematics 3
- Fundamentals of Aeronautical Science

Year 3:

- Aircraft Digital Systems
- Aviation Legislation & Human Factors
- Basic Aerodynamics

Elective Clusters:

- IoT & Automation
- Aerospace Operations

Further Studies

You can gain admission into a wide range of degree programmes at local and overseas universities such as those in USA, UK, Australia and New Zealand. Advance standing for specific modules or up to 2 years exemption may be given depending on the relevance of the degree progamme.

Success Stories

Jasmine Tan Chian Ying had always wanted to make a mark in the aerospace sector, never mind the fact that more than 82% of the world's aerospace professionals are males.

So after her 'O' levels, the former student of St Hilda's Sec School zoomed in on the Diploma in Aerospace Electronics at Temasek Polytechnic (TP), because TP is the only local polytechnic to be certified by the CAAS as a SAR-147 Approved Maintenance Training Organisation for all its aerospace courses. She graduated in 2017 with an impressive cumulative GPA of 3.90.

"An aerospace diploma from TP gives me an advantage, as it is highly regarded and recognised in the industry. The Lufthansa Technical Training (LTT) module was also extremely beneficial as it gave me a lot of hands-on experience," says Jasmine, who is now a Licensed Aircraft Engineer at Jet Aviation (Asia Pacific) Pte Ltd. "Girls can do as well as guys in aerospace!" she adds.

Core Strengths

- We are the first polytechnic in Singapore to be certified by the Civil Aviation Authority of Singapore (CAAS) as a SAR-147 Approved Maintenance Training Organisation (AMTO), providing training aligned to the latest SAR-66 curriculum. This means that your Aerospace diploma will be more recognised by employers and universities. In addition, if you decide to pursue further professional training, you also get direct credits which will shorten your subsequent Aircraft Maintenance Licence (AML) apprenticeship by 10 months.

- You will be trained by expert Aerospace instructors certified by Lufthansa Technical Training (LTT) of Germany, our training partner, and get to use our state-of-the-art TP-LTT Training Centre located on campus.

- We have 3 genuine aircraft on campus (an A4-SU SkyHawk, an S-211 training aircraft, and a Hawker Siddeley 700A Private Jet), all with actual parts and engines, so as provide you with a more authentic learning experience with real hardware.

- You may take flying lessons at the Singapore Youth Flying Club as part of your diploma course, leading to a Private Pilot Licence (PPL). You pay only a small admin fee, compared to the market rate for such a flying course. We are the only local polytechnic with such an arrangement.

Student Life & Facilities

Your life on campus will be varied and vibrant. Sporting competitions, artistic pursuits, adventure learning programmes, team building games, student club gatherings, as well as the annual Campus Care Network Day carnival when students and staff join forces to raise funds, are some of the many exciting activities that will pepper your life as a student.

Located in a picturesque environment that is close to nature, the campus provides you with the ideal setting for work, play and recreation.

Always at the forefront of technology, the School emphasises innovation, creativity, problem-based learning and a practical, hands-on approach. With a wide range of modern and well-equipped facilities, and a rigorous and industry-relevant curriculum, we are well positioned to prepare you for a bright future.

CAAS
Civil Aviation Authority of Singapore

"Certified by the Civil Aviation Authority of Singapore (CAAS) as an Approved Maintenance Training Organisation (AMTO)."

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School of Engineering

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