DIPLOMA IN AVIATION MANAGEMENT (T04)

Course Overview

We've got one of the best airports in the world right here in Singapore – now imagine running it. Turn that dream into reality by coming on board the first Aviation Management programme of its kind in Asia. In this course, you will learn a wide range of specialised aviation management skills. From airline business and management principles to airport operations and air traffic management, our curriculum will prepare you for a career in the aviation industry.

Of course, no aviation programme is complete without taking to the skies! As part of your internship, you will have the opportunity to try your hand as a cabin crew member with a Singapore-based airline. Alternatively, you can work towards becoming a pilot via our Aeronautical Science Option, where you will take flying and theory lessons to obtain a Private Pilot Licence (PPL). As you cover advanced modules in Flight Operations, you will be able to establish a career as a Pilot, Air Traffic Controller, Route Planner, or Flight Dispatcher. The versatile management skills that you will develop in this course gives you an edge in various business and hospitality-related domains – the career possibilities are endless.

So fasten your seatbelts, and take flight with our Diploma in Aviation Management now!

To download a copy of our 4-page course brochure, click here.

MULTIDISCIPLINARY
This course gives you the best of both the engineering and business worlds. Our multidisciplinary programme will also equip you with highly transferable skills.

TAKE FLIGHT
We are the only diploma that incorporates a 12-month flying programme that leads to a Private Pilot Licence (PPL). So, come fly with us!

STRONG INDUSTRY PARTNERSHIPS
Our faculty are constantly in touch and working with industry colleagues to offer local and overseas internship opportunities with renowned aviation companies. Your learning will always be up-to-date and relevant.

Entry Requirements

To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects, including CCA Bonus Points) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.

Subject	Grade
English Language (EL1)*	1-7
Mathematics (E or A)	1-6
Any one of the listed subjects^	1-6
Any two other subjects, excluding CCA	-
2023 Planned Intake	**95**
Net ELR2B2 aggregate range (2023 JAE)	**7 - 15**

Note: *Applicants should not be suffering from uncontrolled epilepsy, profound hearing loss or severe vision impairment.*

* SPM / UEC holders must have a minimum of grade 6 for the Bahasa Inggeris (English Language) subject.

^ List of acceptable subjects: 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.

What You'll Learn

YEAR 1 | YEAR 2 | YEAR 3 | TPFUN

You will receive a firm foundation in basic aviation knowledge through lab work, study trips and participation in industry visits, which will prepare you for the next level where you will acquire more focused knowledge of the aviation industry.

Core Subjects —

Subject Code	Subject	Credit Units
EAL1003	**Airline Operations** The subject covers the fundamentals of airline operations. Topics covered include ground operations such as	4

	handling of passengers, baggage, cargo, as well as ramp handling services, airside management, aircraft engineering and maintenance. Other topics include airline flight operations such as flight control centre, flight crew and cabin crew scheduling, flight procedures and requirements, corporate aviation, airline operational efficiency and punctuality.		
EBZ1004	**Business Fundamentals** This subject provides you with an overall view pertaining to the four pillars of business: Management, Marketing, Money and Manpower. Introductory topics correlating to the four pillars of operation - Management Fundamentals, Marketing Principles, Financial Statements and Organisation Behaviour, will be taught.	**4**	^
ESE1006	**Computer Programming for Problem Solving** This subject covers the process of decomposing a problem into a sequence of smaller abstractions. The abstractions are implemented in software in a structured top-down approach. Software implementation includes the process of designing, writing, testing, and debugging program code.	**4**	^
EMA1003	**Engineering Mathematics 1** This subject introduces the concepts in algebra and trigonometry that are fundamental to an engineering course. Topics include expressions and equations, functions and graphs, trigonometry, complex numbers, matrices and vectors. These also constitute pre-requisite knowledge for a course in Calculus.	**4**	^
EMA1002	**Engineering Mathematics 2**	**4**	^

	This subject introduces the basic concepts of calculus and statistical method to test a hypothesis. Basic concepts in calculus include limits, derivatives and integrals. Applications of the derivative and integrals in engineering will be discussed. Basic statistical method in hypothesis testing includes normal distribution, confidence interval of population mean and procedure to test hypothesis for a claim made about a population mean.		
EAD1001	**Introduction to Civil Aviation** This module provides an overview of the aviation industry and introduces the key concepts and interaction of components in the aviation system including airports, aircrafts and airway systems. It also touches on the history and the role of key players in the aviation industry.	**4**	^
EAL1004	**Principles of Aeronautical Science** This subject provides you with a basic understanding of the fundamentals of flight operations. Topics covered include the component parts of an airplane, atmosphere, theory of flight, flight controls and stability of an aircraft, as well as airplane instruments.	**4**	^
ESZ1002	**Quantitative Methods** This subject introduces basic statistical concepts. Topics include descriptive statistics, probability distributions, estimation of population parameter, hypothesis testing, and simple linear regression.	**4**	^

Get ready to receive and apply a higher level of theoretical concepts and skills in both the technical and business management of the aviation industry. You will have learning opportunities and related industry events, which will reinforce your aviation knowledge.

Core Subjects

Subject Code	Subject	Credit Units
EAT2007	**Airfield Systems** The subject provides a basic understanding of the airfield systems used in the aviation industry, mainly by Air Traffic Service and other supporting units. Topics covered include aeronautical telecommunications, functions of air and ground radar systems, multi-surveillance tracking systems, aerodrome approach aid and requirement of the various categories, aerodrome ground aid, automatic dependent surveillance and controller-pilot data link communication.	4
EAL2005	**Airline Management** This subject covers the fundamentals of airline business and management. The contents include airline business models, key airline performance indicators, airline marketing, airline route and network development and airline administration. Other topics covered include management of airline profitability using AIRLINE Online simulation and SWOT analysis.	4
EAM1001	**Airport Operations & Management** This subject introduces the fundamental concepts and principles involved in the management and operation of modern international airports. You will learn about the principles of airport management and the various aspects of airport operations, including, airport terminal layout and planning, terminal signage systems, gate and baggage belt assignments, terminal contingency planning, airport emergency systems, airport support services and equipment, estate management and	4

terminal landscaping.

EAT2006	**Airport Systems** This subject provides an overview of the key facilities and systems in both the landside and airside of an airport. Topics covered in landside will include passenger check-in systems, the Flight Information Display Systems (FIDS) and the various airport IT support systems. Other topics include the operation of the fully automated baggage handling system, the People Mover System (PMS) and the Passenger Loading Bridges system. On the airside, topics covered include the causes of wear and tear of aircraft pavements, methods of assessing the condition of aircraft pavements, the programming of maintenance works and techniques of repairs and their compliance to international operational standards and requirements.	**4**	^
EAM2007	**Aviation Safety & Security** This subject introduces the global civil aviation security and safety threats, management concepts, frameworks and challenges. Topics covered include global threats to airlines, airports, passengers and their dire impact to aviation operations. ICAO security and safety concepts, frameworks and requirements, bridging into the various national security programmes and safety management systems that safeguard all stakeholders. Other topics include the challenges of balancing between security and facilitation, and between safety and operational efficiency.	**4**	^
EBM3004	**Business Continuity Management** This subject introduces the concepts and trends in the design, development, implementation and management of business continuity. Beginning with an introduction of	**4**	^

	business continuity management (BCM), it delves into business impact analysis, risk evaluation, BCM strategies and emergency response and operations. The development of business continuity and crisis management plans and the coordination with external agencies are also discussed.		
ESE1008	**Data Visualisation & Analytics** This subject covers the data analytics lifecycle, including gathering, cleaning, processing and visualising of data. Exploratory data analysis methods, descriptive and predictive analytics, and the presentation of insights, will also be covered.	**3**	^
EBM2004	**Project Management** This subject aims to provide an overview of the principles and concepts in project management and equip you with the theoretical foundation and skills in using project management tools. It emphasises the knowledge and practices which are widely applied in project management. Topics covered include the project management framework, project management processes and project management knowledge areas.	**4**	^
EBZ2006	**Service Quality & Management** This subject introduces the key concepts and principles of Service Quality and Management. Topics covered include concepts of quality services, essential skills in customer services, principles and strategy of service management, methods for service quality measurements and service recovery.	**4**	^

You will acquire in-depth knowledge and skills in the specialised area of airport/airline or aeronautical science. This is complemented by the self-driven Major Project (knowledge synthesis), service learning (leadership) and internship attachment (as a prelude to working life).

Core Subjects

Subject Code	Subject	Credit Units
EMP3002	**Major Project** In this subject, you will work in teams to integrate and apply your skills and knowledge to implement your projects in a practical work-and-learn environment. Besides research, design, analytics, project management, communication and problem solving skills, the emphasis will also be on innovation, teamwork and self-learning.	8

Diploma Options

Airport & Airline Option

Subject Code	Subject	Credit Units
EAL3004	**Management of Air Cargo** The subject provides an understanding of the fundamentals of the aviation logistics and cargo management. Topics covered include the importance of air cargo to the economy, cargo rates and tariffs issues, terminal facilities and work flow for cargo operations, as well as forecasts and future trends of the cargo industry.	4
EAM3002	**Airport Administration** This subject covers the fundamental concepts and principles involved in the organisational, and administration of modern international airports. Topics include airport performance, productivity and feedback systems,	4

	and airport-related commercial management, public relations, corporate/business planning, organisational structures, financial and accounting strategies, as well as revenue and expense sources.	
EAT3001	**Air Traffic Management** The subject provides an overview of how Air Traffic Service functions as an operational unit. It also gives you a basic understanding of the theoretical and practical skills required in Air Traffic Management. Topics covered include the fundamentals of air traffic management, aerodrome control, approach radar and non-radar control, area radar and non-radar control, emergency procedures and future developments in air traffic management.	**4**

Aeronautical Science Option

Subject Code	Subject	Credit Units
EAL3005	**Air Navigation** This subject will provide you with a basic understanding of navigation in general. It involves the study of the shape and dimension of the earth. Topics covered include chart projections, air speed, time datum, altimetry, and conversion of distances, speed, weight and wind velocity. An overview of the navigation computer will also be covered.	**4**
EAL3006	**Flight Planning** This subject introduces you to the concept of flight planning and monitoring that are required in flight operations. Topics covered include operational procedures, communication, navigation aids and	**4**

	charts, aviation publications, weather information, basic aircraft performance and fuel planning, and how these are consolidated in the generation of flight plans.	
EAM3003	**Meteorological Studies** This subject will provide you with a basic understanding of the atmosphere and weather. You will learn about the changes in temperature, air pressure, moisture and wind directions that determine the weather pattern. Topics covered include the behaviour of the atmosphere of the earth, various aviation weather phenomena and the impact of adverse weather conditions on airline and airport operations.	**4**

You will also take this set of subjects that equips you with the crucial 21st-Century life skills you need to navigate the modern world as an agile, forward-thinking individual and team player.

TP Fundamentals (TPFun) Subjects

Subject Code	Subject	Credit Units
ESI3001	**Student Internship Programme** This structured programme is designed to link your learning with the real work environment. You will be placed in organisation(s) with opportunities to apply the concepts and skills acquired in the course of your study. Besides reinforcing technical concepts and mastering of skills in areas that you have been trained, the practical training will enable you to build important skills such as problem-solving, communication, teamwork, and to cultivate good attitude and a strong work ethic.	**12**

ETX1001	**Effective Communication** This subject introduces the fundamentals of effective communication. It also covers how to communicate with and convince an audience through writing and speaking tasks. The skills in this subject will include the application of strategies for communication, appropriate vocabulary, language features, visual aids, tone and style. The **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) framework will also be applied when planning and engaging in written and verbal communication. There will be opportunities to communicate and collaborate through active learning activities, apply digital and information literacy skills and build competence through self-directed learning.	**3**	^
ETX1002	**Professional Communication** This subject covers professional communication skills for the workplace and employability skills in the areas of career preparation. It covers communication and interpersonal skills, including effective virtual communication etiquette, and conducting oneself professionally in the workplace. In addition, essential career preparation skills such as resume writing and interview skills, needed to seek and secure work would be included. The **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) framework would also be applied when engaging in written and verbal communication. There will be opportunities to communicate and collaborate through active learning activities, apply digital and information literacy skills and build competence through self-directed learning.	**3**	^
GTP1301	**Current Issues & Critical Thinking**	**3**	^

	This subject covers current issues, including diverse local and global concerns, that will impact lives and may have critical implications for Singapore. There will be opportunities to build competence through self-directed learning, communicate and collaborate in active discussions and objectively analyse issues using digital and information literacy skills and critical thinking scaffolds.		
GTP1201	**Career Readiness** This subject focuses on personal management skills. It develops an understanding of one's career interests, values, personality and skills for career success. It covers the necessary knowledge, skills and attitudes needed to succeed in the workplace and achieve professional goals. There will be exposure to apply digital and information literacy skills, build competence through self-directed learning methods, and acquire the skills of being a lifelong learner.	**1**	
GTP1202	**Career Management** This subject focuses on career management skills. It covers the importance of workplace readiness skills to adapt and respond to the changing job market environment. Career ownership and continuous learning for lifelong employability will be emphasised. There will be exposure to apply digital and information literacy skills, build competence through self-directed learning, and acquire the skills of being a lifelong learner.	**1**	
EGS1002	**Global Studies** This subject provides essential skills and knowledge to prepare students for an overseas experience. They will	**3**	

	examine the elements of culture and learn the key principles of cross-cultural communication. In addition, they will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment. The subject prepares students to be responsible global citizens and leaders who can contribute to the global community through effective communication and collaboration.		
GTP1302	**Guided Learning***	**3**	
	The subject introduces students to the concepts and process of self-directed learning in a chosen area of inquiry. The process focusses on four stages: planning, performing, monitoring and reflecting. Students get to plan their individual learning project, refine and execute the learning plan, as well as monitor and reflect on their learning progress and project. The learning will be captured and showcased through a curated portfolio. The self-directed learning project will broaden and/or deepen a student's knowledge and skills. Students will enhance their problem solving and digital literacy skills through this subject.		
EIN1001	**Innovation & Entrepreneurship**	**2**	
	The subject is designed for learners from all disciplines to embrace innovation in either their specialised field or beyond. Learners will be taught to apply the Design Thinking framework to develop problem statements, ideate and identify feasible solutions. Learners will be exposed to several tools for prototyping. In addition, commercial awareness will be imbued in learners through various innovation and entrepreneurship concepts or tools. This subject also prepares students to		

	be self-directed lifelong learners who are digital and information literate. It nurtures communicative and collaborative citizens who can use objective analysis in problem-solving.		
GTP1101	**Leadership Fundamentals** This subject focuses on self-leadership based on the values of integrity, respect, and responsibility. Increasing awareness of self and others will lay the foundations for personal and relationship effectiveness. Consequential thinking, clear articulation of personal values and visions, emphatic listening, and collaboration in serving others are some of the essential skills covered in this leadership journey. There will be opportunities to build and to apply the concepts of being a values-centred leader.	**2**	^
GTP1102	**Leadership in Action** This subject focuses on Service Learning as an experiential platform to apply the tenets of Self and Team Leadership. Service Learning will be the capstone project for this subject, which will require an analysis of the diverse needs of the community, collaboration with community partners and demonstration of learning, including key elements of empathy. There will be opportunities to build and to apply the concepts of being a values-centred leader.	**1**	^
LSW1002	**Sports & Wellness** The subject enables students to build a good foundation for healthy living. Students will have the opportunity to participate in hands-on practical sessions where they will experience and develop both physical and	**2**	^

	technical skills in their chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, students will be able to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will also be supplemented by health-related topics that span the dimensions of health, such as diet, nutrition, stress and weight management, to provide students with a holistic approach to healthy living. This subject also prepares students to be self-directed and accountable for lifelong learning for good health.		
TGS1001	**Sustainability & Climate Action***	**3**	
	This subject prepares students to be responsible global citizens and future leaders who can contribute to the global community. It introduces the topics of sustainability and explores how human societies can act to build a sustainable future. This subject focuses on the impact of climate change, potential solutions to climate change, and the future of the green economy from global and local perspectives.		

** Students must choose to take either **Sustainability & Climate Action** or **Guided Learning**.*

GRADUATION REQUIREMENTS

Cumulative Grade Point Average	min 1.0
TP Fundamentals Subjects	36 credit units
Diploma Core Subjects	75 credit units
Total Credit Units Completed	min 123 credit units