

Subject Description Form

Subject Code	AAE5106
Subject Title	Flight Standards and Airworthiness
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	<p>This subject will provide students with</p> <ol style="list-style-type: none"> 1. the advanced knowledge in the aircraft airworthiness, flight standards, airworthiness and certification; 2. profile and qualification tests for onboard aircraft system and equipment; and 3. legal requirement of airworthiness and the importance of aircraft performance in safe operational aspects.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. conduct documentation and review of legation requirement for flight standards and airworthiness certifications; b. understand and review the aviation safety, quality, maintenance approval and procedures and procedures of certification continuity; and c. implement and conform the relevant regulations in practices.
Subject Synopsis/ Indicative Syllabus	<p>Airworthiness – Airworthiness requirement, regulations and standards; Airworthiness directive (AD); Aircraft registration; Type certification; Production of products, parts and appliances; Certificates of airworthiness and permits to fly; Air operation regulation; Renewal of certificate of airworthiness (C of A) issue; Air operator’s certification; Certification arrangements with other authorities, human factors and safety management.</p> <p>Flight standards – Requirement and criteria for the approval of type rating training; Pilot licences and associated ratings; Low visibility operations; Air operator’s certificates requirements; Avoidance of fatigue in aircrews.</p> <p>Licensing and certification – Aeromedical matters; Air operator’s certificate; Pilot licensing; Aircraft maintenance licensing; Conversion of license among contracting states.</p> <p>Quality control and assurance – Joint maintenance management (JMM); Technical arrangement (TA); Maintenance management exposition (MME); airworthiness control procedures; Maintenance support arrangement and contracted-out maintenance.</p>

	<p>Accident prevention and analysis – Safety management system (SMS); Accident analysis; Human factors.</p> <p>Air operator’s certificate (AOC) – CAD 360, AOC requirements document; Operation of aircraft, arrangement for maintenance support.</p> <p>Flight operations – The air operators certificate, organisation and facilities, operations manual, training and testing; Emergency and survival training, cabin safety, safety management.</p> <p>International and Hong Kong civil aviation – ICAO history, annexes, safety oversight concept, safety oversight system; HK legislation system, basic law of HKSAR, civil aviation ordinance, air navigation (Hong Kong) order; Safe operating environment.</p>																												
<p>Teaching/Learning Methodology</p>	<p>Teaching is conducted through class lectures and case studies of airworthiness and aircraft performance to the students. The industrial experts will provide several cases and their experiences throughout the teaching and learning in this course.</p> <table border="1" data-bbox="486 801 1433 1088"> <thead> <tr> <th rowspan="2">Teaching/Learning Methodology</th> <th colspan="3">Outcomes</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> </tr> </thead> <tbody> <tr> <td>1. Lecture</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>2. Case study</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </tbody> </table>	Teaching/Learning Methodology	Outcomes			a	b	c	1. Lecture	✓	✓	✓	2. Case study	✓	✓	✓													
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Student Study Effort Expected	Class contact:	
	▪ Lecture	30 Hrs.
	▪ Case study	9 Hrs.
	Other student study effort:	
	▪ Self-study / preparation	36 Hrs.
	▪ Assignments / group project	36 Hrs.
	Total student study effort	111 Hrs.
Reading List and References	<ol style="list-style-type: none"> 1. Hong Kong Aviation Requirements. 2. Airport Planning & Management. Edited by Alexander T. Wells, latest Edition, McGraw Hill. 3. Aircraft Safety: Accident Investigations, Analyses & Applications. Edited by Shari Stamford Krause, latest Edition, McGraw Hill. 	

July 2023