

Subject Description Form

Subject Code	EIE3115 (for 05407)
Subject Title	Airport Information Systems
Credit Value	3
Level	3
Pre-requisite / Co-requisite/ Exclusion	Nil
Objectives	To provide students with knowledge of information and communications technologies employed in airports.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> 1. possess essential knowledge and skills in the area of information systems employed on the ground for aviation industry; 2. apply their knowledge, skills and hand-on experience to operate and maintain existing airport information systems; analyze and develop new subsystems for desired needs; 3. extend their knowledge of airport information systems to different situations of engineering context and professional practice;
Subject Synopsis/ Indicative Syllabus	<p>Information Technology Fundamentals: Data presentation & storage; Data processing and displays; Practice of resource management and privilege control in modern computers clusters and operating systems.</p> <p>Database Systems: Concept of relational database and its architecture; Structural Query Language (SQL), database design, implementation and management.</p> <p>Data Transmission: Characteristics of transmission lines; Line drivers & receivers and their impacts on Line Replaceable Units (LRU);</p> <p>Network Topology: Physical and Data Link Layers; Issue of Multiple Access; Concepts of Client-Server Architecture and various internet applications (HTTP/FTP/DNS); Principles on packet routing and associated network security measures.</p> <p>Practical Information Systems & Equipment: Common Use Terminal Equipment (CUTE); IATA Fast Travel Program; Common Use Self Service (CUSS) Check-in; Common Use Passenger Processing Systems (CUPPS); Baggage Handling & Reconciliation Systems, Flight Information Displays (FIDS); Airport Operational Database (AODB); Access Control Systems (ACS); Airline Passenger Services Systems (PSS).</p>
Teaching/Learning Methodology	<ol style="list-style-type: none"> 1. The teaching and learning methods include lectures/tutorial sessions, homework assignments, test, case study report and examination. 2. The continuous assessment and examination are aimed at providing students with integrated knowledge required for aviation information systems. 3. Technical/practical examples and problems are raised and discussed in class/tutorial sessions.

	Teaching/Learning Methodology		Intended subject learning outcomes			
			1	2	3	
	1. Lecture		√	√		
	2. Tutorial		√	√		
	3. Homework assignment		√	√		
4. Case study report and presentation		√	√	√		
Assessment Methods in Alignment with Intended Learning Outcomes	Specific assessment methods/tasks		% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)		
				1	2	3
	1. Homework assignment		10%	√	√	
	2. Quizzes		20%	√	√	
	3. Case study report and presentation		30%	√	√	√
	4. Examination		40%	√	√	√
	Total		100%			
<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Overall Assessment:</p> <p>$0.40 \times \text{End of Subject Examination} + 0.60 \times \text{Continuous Assessment}$</p> <p>The continuous assessment consists of three components: homework assignment, quizzes, and case study report and presentation. They are aimed at evaluating the progress of students' study, assisting them in self-monitoring of fulfilling the respective subject learning outcomes, and enhancing the integration of the knowledge learnt.</p> <p>The examination is used to assess the knowledge acquired by the students for understanding and analyzing the problems critically and independently; as well as to determine the degree of achieving the subject learning outcomes</p>						
Student Study Effort Expected	Class contact:					
	▪ Lecture/Tutorial				27 Hours	
	▪ Workshop				6 Hours	
	▪ Presentation				6 Hours	
	Other student study effort:					
	▪ Self study				44 Hours	
	▪ Case study				22 Hours	
Total student study effort				105 Hours		

Reading List and References	<ol style="list-style-type: none">1. B. Williams and S. Sawyer, <i>Using Information Technology: A Practical Introduction to Computers and Communications</i>, 10th ed. McGraw-Hill, 2013.2. P. Rob and C. Coronel, <i>Database Systems: Design, Implementation, and Management</i>, 9th ed., Thomson, 2011. ed., Prentice-Hall, 2011.3. Helfrick A, <i>Principles of Avionics</i>, 7th ed., Avionics Communications, 2012.
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