



Department	Course Name	Course Number	Semester			
Aircraft maintenance Engineering	Licensing Module 5: Digital Techniques/ Electronic Instrument Systems (Part 1)	0994153	Fall			
2025 Course Catalog Description						
Electronic instrument systems, Numbering systems, Data conversion, Data buses, Logic circuits, Basic computer structure.						
Instructors						
Name	E-mail	Sec	Office Hours		Lecture Time	
			Sunday	Tuesday		
MEng. Aasef Hamadneh	ahamadneh@joramco.com.jo		1:00-2:00	1:00-2:00		
Text Books						
Title	Digital Techniques Electronic Instrument Systems					
Author(s)	EASA					
Publisher, Year, Edition	Issue 2 , 2024					
References						
Books						
Journals						
Internet links						
Prerequisites						
Prerequisites by topic	-					
Prerequisites by course	-					
Co-requisites by course	-					
Prerequisite for	-					
Topics Covered						
Week	Topics	Chapter in Text				
1	Electronic instrument systems,	Chapter 1				
2	Numbering systems,	Chapter 2				
3-4	Data conversion,	Chapter 3				
5-6	Data buses,	Chapter 4				
6-7	Data buses,	Chapter 4				
7-8	Logic circuits,	Chapter 5				
9-10	Logic circuits,	Chapter 5				
11-14	Basic computer structure	Chapter 6				
14-15	Basic computer structure	Chapter 6				

Mapping of Course Outcomes to ABET Student Outcomes							
SOs	Course Outcomes						
2	Where applicable, the student will also be able to read, understand and use sketches, drawings, schematics and practical demonstration to describe the subjects.						
4	At the satisfactory completion of this Module the student will be able to give the required description of the electrical fundamentals as appropriate, typical examples and mathematical formulae in conjunction with physical laws.						
Evaluation							
Assessment Tools		Expected Due Date					Weight
Projects							20%
Midterm Exam							30%
Final Exam							50%
Contribution of Course to Meet the Professional Components							
Relationship to Student Outcomes							
SOs	1	2	3	4	5	6	7
Availability		X		X			
Relationship to Aeronautical Engineering Program Objectives (AEPOs)							
AEPO1	AEPO2	AEPO3	AEPO4	AEPO5			
ABET Student Outcomes (SOs)							
1	An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics						
2	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors						
3	An ability to communicate effectively with a range of audiences						
4	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts						
5	An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives						
6	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions						
7	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies						
Updated by Curriculum Committee, 2025							