



Department	Course Name	Course Number	Semester
Aircraft maintenance Engineering	Licensing Module 11: Aeroplane Aerodynamic, Structure, and Systems (Part 1)	0994352	Fall

2025 Course Catalog Description

Theory of flight, Airframe structures-general concepts, Airframe structures-aeroplanes, Air conditioning and cabin pressurization (ATA21), Equipment and furnishings (ATA 25), Flight controls (ATA 27), Fuel systems (ATA 28), Hydraulic power (ATA 29), Ice and Rain protection (ATA 30), Landing gear (ATA 32), Oxygen (ATA 35), Pneumatics/vacuum (ATA 36), Water/ waste (ATA 38).

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	Aeroplane Aerodynamic, Structure, and 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	Theory of flight, Airframe structures-general concepts, Airframe structures-aeroplanes,	Chapter 1,2,3
2	Air conditioning and cabin pressurization (ATA21),	Chapter 4
3-4	Equipment and furnishings (ATA 25), Flight controls (ATA 27),	Chapter 5,6
5-6	Fuel systems (ATA 28),	Chapter 7
6-7	Hydraulic power (ATA 29), Ice and Rain protection (ATA 30),	Chapter 8,9
7-8	Landing gear (ATA 32),	Chapter 10
9-10	Oxygen (ATA 35),	Chapter 11
11-14	Pneumatics/vacuum (ATA 36),	Chapter 12
14-15	Water/ waste (ATA 38)	Chapter 13

Mapping of Course Outcomes to ABET Student Outcomes							
SOs	Course Outcomes						
1	Describe in detail how the aircraft is controlled about its longitudinal, lateral and vertical axis.						
1	Identify and describe in details typical aircraft flight control surfaces.						
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						
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							