Jordan University of Science and Technology

Faculty of Engineering

Aeronautical Engineering Department

AE484 Aircraft Maintenance Systems - JNQF Level: 7

Second Semester 2022-2023

Course Catalog
3 Credit Hours. Aerospace and aircraft maintenance regulations in general. Management of aviation maintenance systems, maintenance planning, forecasting, and cost control, reliability, and safety. Maintenance of hydraulic, power, electrical, and electronic systems, as well as instrument landing and support systems. Techniques for troubleshooting, evaluation, repair, installation, and inspection.

Text Book	
Title	Aviation Maintenance Management
Author(s)	H. A. Kinnison, T. Siddiqui
Edition	2nd Edition
Short Name	Ref#1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref#2	U.S.Department of Transportation,Federal Aviation Regulation	FAA	1st Edition	
Ref#3	U.S.Department of Transportation,Airframe & Powerplant General Handbook	FAA	1st Edition	
Ref#4	U.S.Department of Transportation,Airframe Handbook	FAA	1st Edition	
Ref#5	U.S.Department of Transportation,Powerplant Handbook	FAA	1st Edition	
Ref#6	Aircraft Systems	I.Moir and A.Seabridge	2nd Edition	

Ref#7	Aircraft Systems	D. Lombardo	2nd Edition	
Ref#8	Aircraft Maintenance Management	C.H. Friend	2nd Edition	

Instructor	
Name	**Dr. Montasir Hader**
Office Location	N1L2
Office Hours	Sun : 09:30 - 10:30 Mon : 13:00 - 14:30 Tue : 09:30 - 10:30 Thu : 09:30 - 12:00
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Class Schedule & Room
Section 1: Lecture Time: Sun, Tue : 10:30 - 11:30 Room: CH2110

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
713030	AE303 Applied Math For Engineers	Prerequisite / Study
713440	AE344 Aerodynamics (1)	Prerequisite / Pass

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Introduction	From **Ref#1**
Week 1	Development of Maintenance Programs	From **Ref#1**
Week 1	Definitions, Goals and Objectives	From **Ref#1**
Week 2	Aviation Industry Certification Requirements	From **Ref#1**
Week 2	Documentation for Maintenance	From **Ref#1**
Week 2	Requirements for a Maintenance Program	From **Ref#1**
Week 3	The Maintenance and Engineering Organization	From **Ref#1**
Week 3	Engineering	From **Ref#1**
Week 4	Production and Planning Control	From **Ref#1**
Week 4	Technical Publication	From **Ref#1**
Week 4	Technical Training	From **Ref#1**

Week 5	Computer Support	From **Ref#1**
Week 5	Line Maintenance	From **Ref#1**
Week 6	Hangar Maintenance	From **Ref#1**
Week 6	Maintenance Overhaul Shops	From **Ref#1**
Week 7	Material Support	From **Ref#1**
Week 7	Quality Assurance	From **Ref#1**
Week 7	Quality Control	From **Ref#1**
Week 8	Reliability	From **Ref#1**
Week 8	Maintenance Safety	From **Ref#1**
Weeks 9, 10, 11, 12, 13, 14, 15, 16	Aircraft systems	From **Ref#6**, From **Ref#7**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	**Course Outcome Weight (Out of 100%)**	**Assessment method**
Explain the basic working principles, functions, major components and technologies of aircraft systems and their integration into overall system. [100SO 2] [1L7S2]	50%	
Idenitfy regulations, safety rules, procedures, methods about maintenance and servicing of aircraft systems with economic and managerial considerations and enable them to use this knowledge in practice. [100SO 4] [1L7C2]	50%	

Relationship to Program Student Outcomes (Out of 100%)							
SO1	SO 2	SO 3	SO 4	SO 5	SO 6	SO 7	SO 8
	50		50				

Relationship to NQF Outcomes (Out of 100%)	
L7S2	L7C2
50	50

Policy	
Atendance	The student is required to attend all the registered courses. The instructor shall register student attendance or absence electronically. JUST policy requires the faculty member to assign ZERO grade (35) if a student misses 20% of the classes. If you miss a class, it is your responsibility to find out about any announcements or assignments you may have missed

Exam/Homework	Makeup exam should not be given unless there is a valid excuse according to JUST policies. Arrangements to take an exam at a time other than the one scheduled MUST be made prior to the scheduled exam time. Cheating or copying from neighbor on exam, quiz, or homework is an illegal and unethical activity. Standard JUST policy will be applied. All assignments must be your own work (your own words) Students are responsible for all information provided in lecture. Information presented in class supersedes any information posted elsewhere.

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