Jordan University of Science and Technology

Faculty of Engineering

Aeronautical Engineering Department

AE201 Introduction To Aeronautical Engineering - JNQF Level: 7

First Semester 2023-2024

Course Catalog
3 Credit Hours. Role of professional aeronautical engineers, along with the development of fundamental engineering knowledge and skills for flight vehicle design, analysis performance and operation, Introduction to the multiple disciplines related to aeronautical engineering, Engineering ethics, Communication skills, Manufacturing technology.

Text Book	
Title	Introduction to Flight
Author(s)	J. D. Anderson
Edition	7th Edition
Short Name	Textbook
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref#2	Fundamentals of Flight	Shevell, R. S.	2nd Edition	
Ref#3	Aircraft Flight	3. RH Barnard, and DR Philpott	4th Edition	

Instructor	
Name	**Dr. MUATH BANI HANI**
Office Location	-
Office Hours	Sun : 10:30 - 11:30 Mon : 09:30 - 11:30 Tue : 10:30 - 11:30 Wed : 09:30 - 10:30 Thu : 10:30 - 11:30
Email	mabanihani@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Mon, Wed : 08:30 - 09:30 Room: CH2110

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
251000	ME100 Engineering Workshops	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Weeks 1, 2	Review of vehicles and aeronautical terminology	From **Textbook**
Week 3	Historical review of aeronautical engineering	From **Textbook**
Weeks 4, 5, 6, 7, 8	Overview of aeronautical engineering topics: Aerodynamics, Propulsion, Flight mechanics, performance, and stability Class Hanout d. Structures and materials	From **Textbook**
Weeks 9, 10	workshop skills and typical machine and hand tools used in aeronautical engineering.	From **Textbook**
Weeks 11, 12	Conceptual design of an aircraft	From **Textbook**
Weeks 13, 14	Comunication skills, report writing	From **Textbook**
Weeks 15, 16	Professionalism and ethics	From **Textbook**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify various vehicle types and articulate key definitions within the field of aeronautical engineering, while also demonstrating an understanding of the historical perspective of this discipline. [100SO2] [100L7S1]	20%	
Analyze and articulate the responsibilities and ethical considerations associated with the role of a professional engineer. [100SO4] [100L7C2]	15%	
Classify and differentiate the unique disciplines integral to the aerospace engineering degree, encompassing areas such as aerodynamics, propulsion, stability, structures, and materials [100SO1] [100L7K1]	25%	
Acquire the ability to collaborate within teams, applying teamwork skills to execute a preliminary design of an aerospace vehicle, and effectively communicate their findings through both written and oral reports. [50SO5] [50L7C1]	20%	

Demonstrate proficiency in practical workshop skills and exhibit familiarity with the utilization of typical machine and hand tools employed in the field of aeronautical engineering. [100SO6] [100L7S3]	20%	

Relationship to Program Student Outcomes (Out of 100%)						
SO1	SO2	SO3	SO4	SO5	SO6	SO7
25	20		15	20	20	

Relationship to NQF Outcomes (Out of 100%)				
L7K1	L7S1	L7S3	L7C1	L7C2
25	20	20	20	15

Evaluation	
Assessment Tool	**Weight**
First Exam	30%
Second Exam	30%
Final Exam	40%

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.

Date Printed: 2023-12-07