**The University of Jordan**
**School of Engineering**

| Department | Course Name | Course Number | Semester |
|---|---|---|---|
| Aircraft maintenance Engineering | Licensing Module 15: Gas Turbine Engine (Part 2) | 0994255 | Summer |

## 2025 Course Catalog Description

Starting and ignition systems, Engine indication systems, Power augmentation systems, Turbo-prop engines, Turbo-shaft engines, Auxiliary power units (APUs), Power plant installation, Fire protection systems, Engine monitoring and ground operation, Engine storage and preservation.

## 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** | Gas Turbine Engine | |
| **Author(s)** | EASA | |
| **Publisher, Year, Edition** | Issue 2 , 2024 | |

## References

| | |
|---|---|
| **Books** | |
| **Journals** | |
| **Internet links** | |

## Prerequisites

| | |
|---|---|
| **Prerequisites by topic** | - |
| **Prerequisites by course** | Licensing Module 15: Gas Turbine Engine (Part 1): 0994254 |
| **Co-requisites by course** | - |
| **Prerequisite for** | - |

## Topics Covered

| Week | Topics | Chapter in Text |
|---|---|---|
| 1 | Starting and ignition systems, | Chapter 13 |
| 2 | Engine indication systems, | Chapter 14 |
| 3-4 | Power augmentation systems, | Chapter 15 |
| 5-6 | Turbo-prop engines, | Chapter 16 |
| 6-7 | Turbo-shaft engines, | Chapter 17 |
| 7-8 | Auxiliary power units (APUs), Power plant installation, | Chapter 18,19 |
| 9-10 | Fire protection systems, | Chapter 20 |
| 11-14 | Engine monitoring and ground operation, | Chapter 21 |
| 14-15 | Engine storage and preservation | Chapter 22 |

## Mapping of Course Outcomes to ABET Student Outcomes

| SOs | Course Outcomes |
|---|---|
| 2 | Understand the Operation of Detection and Extinguishing Systems: Engine. |
| 4 | Understand the Interpretation of Engine Power Output and Parameters. |

## 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**