CHOOSE AEROSPACE

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Aviation Maintenance Curriculum

Safety, Ground Operations, and Servicing Syllabus

About The Course:

The Ground Operations and Servicing course is designed to align with the general knowledge and skill requirements outlined in the Federal Aviation Administration's Mechanic Airman Certification Standards.

This course will help you learn important safety policies and procedures for aircraft ground operations and servicing. You will learn safety practices for shop, flight line, and fire protection environments, including electricity, compressed gases, hazardous materials, machine tools, FOD prevention, aircraft movement, and fire extinguisher use. You will also learn proper tiedown procedures for different types of aircraft. Ground movement procedures, including engine starting, towing, taxiing, standard hand signals, and control tower light signals, are also reviewed. Finally, you will learn about aircraft servicing, including oil, hydraulic fluids, ground support equipment, oxygen systems, deicing, fueling, grounding, bonding, and defueling.

The information in this course is intended as a general guide for safety, ground operations, and aircraft servicing. Always review and follow the applicable aircraft, equipment, and workplace manuals before performing any ground operation, servicing, or maintenance task.

Couse Number: FAA-ACS-AM-IF-GOS

ACS Reference: Ground Operations and Servicing (AM.I.F)

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Course Objectives:

1. Identify common procedures and practices for shop safety, flight line safety, and fire protection.
2. Describe safe aircraft ground operations, including tiedown, engine starting, towing, taxiing, and shutdown procedures.
3. Identify standard hand signals and control tower light signals used during aircraft ground operations.
4. Identify precautions and procedures for servicing aircraft fluids, ground power units, oxygen systems, and deicing systems.
5. Describe precautions and procedures for fueling, grounding, bonding, and defueling an aircraft.

Module 1: Shop and Flight Line Safety and Fire Protection

- Lesson 1.1 – Shop and Flightline Safety
- Lesson 1.2 – Fire Protection

Module 2: Tiedown Procedures and Ground Movement of Aircraft

- Lesson 2.1 – Tiedown Procedures
- Lesson 2.2 – Ground Movement of Aircraft

Module 3: Aircraft and Fuel Servicing Servicing

- Lesson 3.1 – Servicing Aircraft
- Lesson 3.2 – Fuel Servicing of Aircraft

SkilRedi simulations included in this course:

- Foreign object debris
- Aircraft tiedown procedures
- Aircraft Towing
- Reciprocating aircraft startup
- Reciprocating aircraft shutdown
- Connecting external power

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Hands on labs

- Skill Stations

Each lesson contains the following:

- Lesson Objectives
- Video lecture
- Multiple readings with interactive animations
- Assigned readings in the applicable FAA 8083 Chapter
- Summary and Key Terms
- Assessment Activities

Each Module contains the following:

- Standards and Objectives
- Pre-Assessment
- Key Concepts and Terms
- Further Study
- Module Quiz
- Module Critical Thinking Activity
- Module Survey

Each Course contains the following:

- Course Pre-Test
- Course Introduction
- Course Comprehensive Assessment
- Course Survey

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