CHOOSE AEROSPACE

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Aviation Maintenance Curriculum

Cleaning and Corrosion Control Course Syllabus

About The Course:

The Cleaning and Corrosion Control course was developed in alignment with the general knowledge, risk management, and skill requirements outlined in the FAA Airman Certification Standards.

This course introduces the causes, types, forms, inspection, prevention, and treatment of corrosion in aircraft structures. Learners will explore direct chemical and electrochemical corrosion, common forms of corrosion, corrosion-prone aircraft areas, and the environmental and operational conditions that increase corrosion risk.

The course also develops working knowledge of corrosion removal, metal-specific corrosion treatments, surface preparation, aircraft cleaning, and protective finishes. Learners will study common aircraft metals, cleaning materials, surface treatments, primers, coatings, paint defects, and safety practices for using cleaners, solvents, paints, and corrosion-control materials. Emphasis is placed on following approved procedures, using proper PPE, reviewing SDS information, and maintaining corrosion protection on aircraft interiors, exteriors, powerplants, and propellers.

Couse Number: FAA-ACS-AM-IG-CCC

ACS Reference: Cleaning and Corrosion Control (AM.I.G)

Revision Number: 02
Revision Date: 10/26/26
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Course Objectives:

1. Identify the causes, types, and forms of corrosion found in aircraft structures.
2. Explain preventive maintenance and inspection practices used to control aircraft corrosion.
3. Identify corrosion-prone aircraft areas and describe why corrosion develops in those locations.
4. Describe corrosion removal and treatment methods for common aircraft materials.
5. Identify when corrosion damage can be treated, repaired, or requires replacement using approved limits.
6. Describe aircraft cleaning methods, materials, and safety practices for interiors, exteriors, powerplants, and propellers.
7. Explain how surface preparation, finishes, primers, coatings, and paint defect prevention support corrosion control.

Module 1: Types and Forms of Corrosion

- Lesson 1.1 – Introduction and Types of Corrosion
- Lesson 1.2 – Forms of Corrosion, Maintenance, and Inspection

Module 2: Inspection and Removal of Metal Corrosion

- Lesson 2.1 – Corrosion Prone Areas and Corrosion Removal
- Lesson 2.2 – Corrosion and Treatment of Metals

Module 3: Processes and Materials Used in Corrosion Control

- Lesson 3.1 – Chemical Treatments
- Lesson 3.2 – Surface Preparation
- Lesson 3.3 – Finishing
- Lesson 3.4 – Aircraft Cleaning
- Lesson 3.5 – Cleaners
- Lesson 3.6 – Risk Management

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SkilRedi simulations included in this course:

- Composite wing paint preparation
- Metal wing paint preparation
- Paint preparation masking
- Paint finish inspection

Hands on labs

- Mechanical Corrosion Removal

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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