1. **COURSE TITLE\*: Aircraft Maintenance Forms and Inspection Techniques**
2. **CATALOG – PREFIX/COURSE NUMBER/COURSE SECTION\*: AVIT 1102**
3. **PREREQUISITE(S)\*: COREQUISITE(S)\*:**
4. **COURSE TIME/LOCATION/MODALITY: (*Course Syllabus – Individual Instructor Specific*)**
5. **CREDIT HOURS\*: 3 LECTURE HOURS\*: 2**

 **LABORATORY HOURS\*: 1 (1.5 contact hrs) OBSERVATION HOURS\*:0**

1. **FACULTY CONTACT INFORMATION: *(Course Syllabus – Individual Instructor Specific)***
2. **COURSE DESCRIPTION\*:**

This course will introduce the student to aircraft publications and regulations. The student will become familiar with the use of the aircraft manufacture maintenance and structural repair manuals and illustrated parts catalog. The student will investigate the Federal Aviation Regulations, Airworthiness Directives and Advisory materials related to aircraft maintenance and paperwork required by the FAA. Knowledge of Human Factors.

1. **LEARNING OUTCOMES\*:**

Students will have knowledge of the following:

1. Privileges and limitations of a mechanic certificate.
2. Maintenance record entry for approval for return to service after maintenance and alterations
3. Maintenance record entry for approval for return to service after inspection.
4. The purpose and use of FAA forms
5. Preventive maintenance, major alteration, major repair, minor alteration, minor repair
6. Criteria and responsibility for determining whether a repair or alteration is major or minor.
7. The regulatory framework, including general subject matter of the parts of 14 CFR relevant to aircraft maintenance and mechanics
8. TCDSs, advisory
9. Circulars (AC), and airworthiness directives (AD).
10. Manufacturer publications
11. FAA-approved maintenance data
12. K16 Difference between approved data and acceptable data
13. Alert, caution, and warning indications; and the basic definition of warnings, cautions, and notes that are used in maintenance and operating manuals.
14. Safety culture and organizational factors
15. Human error principles
16. Event investigation.
17. Human performance and limitations
18. Physical and social environment
19. Communication/reporting of hazards
20. Teamwork and leadership.
21. Professionalism and integrity.
22. Shift and task turnover
23. Conditions/preconditions for unsafe acts
24. Types of human errors
25. **ADOPTED TEXT(S)\*:**

FAA-H-8083-30A (General)

Aviation Maintenance Technician Handbook 43.13-1B

<https://www.faa.gov/sites/faa.gov/files/regulations_policies/handbooks_manuals/aviation/amt_general_handbook.pdf>

<https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_43.13-1B_w-chg1.pdf>

**9a: SUPPLEMENTAL TEXTS APPROVED BY FULL TIME DEPARTMENTAL FACULTY (INSTRUCTOR MUST NOTIFY THE BOOKSTORE BEFORE THE TEXTBOOK ORDERING DEADLINE DATE PRIOR TO ADOPTION) \*\*\*.**

1. **OTHER REQUIRED MATERIALS: (SEE APPENDIX C FOR TECHNOLOGY REQUEST FORM.)\*\***
2. **GRADING SCALE\*\*\*:**

Grading will follow the policy in the catalog. The scale is as follows:

A: 90 – 100

 B: 80 – 89

 C: 70 – 79

 D: 60 – 69

 F: 0 – 59

Grades of 69 and below will not meet the requirements of the FAA for Mechanic

Certificate.

1. **GRADING PROCEDURES OR ASSESSMENTS: (*Course Syllabus – Individual Instructor Specific)***

Test count – 40% of Final Grade

 Quizzes count – 10% of Final Grade

 Lab Grade counts – 50% of Final Grade

Class and lab attendance will be graded, two points will be deducted from the grade for each day missed. Quizzes cannot be made up. No test can be taken late without prior approval of the instructor.

1. **COURSE METHODOLOGY: *(Course Syllabus – Individual Instructor Specific)***

May included but not limited to lecture and problems solving, group and lab projects, in-class and home assignments, quizzes and tests. Lab project will be individual and group. Attendance to class and lab is required.

**14. COURSE OUTLINE: *(Course Syllabus – Individual Instructor Specific)***

***(Insert sample course outline with learning outcomes tied to assignments / topics.)***

**Below is an example of how you might fill-in the course outline of classwork, assignments, tests, et al…**

|  |  |  |
| --- | --- | --- |
| **WEEK** | **DESCRIPTION** | **LEARNING OUTCOMES#** |
| WEEK 1 | FAA organization, maintenance FAR’s, Airworthiness Directives | 1, 11 |
| WEEK 2 | Repairs and alternations, preventive maintenance, inspection check list, annual inspections, progressive inspections, pito-static system checks, transponder checks, ELT’s, special inspections, recurring inspections. | 5, 13, 16 |
| WEEK 3 |  |  |
| WEEK 4 | Advisory circulars, type certificate data sheets, aircraft specifications, aircraft listings, supplemental type certificates. | 8, 9 |
| WEEK 5 | ATA specifications, maintenance manuals, overall manuals, illustrated parts catalog, wiring manuals.  | 10 |
| WEEK 6 | Quiz 1 |  |
| WEEK 7 | Parts manufacturing approval, technical standard orders, real-time monitoring, trend analysis, computer records tracking. | 7, 22 |
| WEEK 8 | Inspections forms, major repair and alteration form, malfunction or default report. | 4 |
| WEEK 9 | Airworthiness certificate, registration certificate, maintenance records, permanent records, temporary records, reconstructing records. | 2, 3, 6 |
| WEEK 10 |  |  |
| WEEK 11 | Maintenance record entries, inspection entries, unairworthy entries, repair station entries, AD records. | 11, 12, 20 |
| WEEK 12 |  |  |
| WEEK 13 | Eligibility requirements for technicians, Inspection Authorization, Repairman’s certificate, drug and alcohol testing, personal certificate records. | 17, 21, 18, 19 |
| WEEK 14 |  |  |
| WEEK 15 | Human Factors | 14, 15, 23, 24 |
| WEEK 16 | Final Exam |  |

* + FAA organization, maintenance FAR’s, Airworthiness Directives.
	+ Repairs and alternations, preventive maintenance, inspection check list, annual inspections, progressive inspections, pito-static system checks, transponder checks, ELT’s, special inspections, recurring inspections.
	+ Advisory circulars, type certificate data sheets, aircraft specifications, aircraft listings, supplemental type certificates.
	+ ATA specifications, maintenance manuals, overall manuals, illustrated parts catalog, wiring manuals.
	+ Quiz 1
	+ Parts manufacturing approval, technical standard orders, real-time monitoring, trend analysis, computer records tracking.
	+ Inspections forms, major repair and alteration form, malfunction or default report.
	+ Airworthiness certificate, registration certificate, maintenance records, permanent records, temporary records, reconstructing records.
	+ Maintenance record entries, inspection entries, unairworthy entries, repair station entries, AD records.
	+ Eligibility requirements for technicians, Inspection Authorization, Repairman’s certificate, drug and alcohol testing, personal certificate records.
	+ Human Factors
	+ Final Exam.

**15. SPECIFIC MANAGEMENT REQUIREMENTS\*\*\*:**

Class and lab attendance will be graded. Quizzes cannot be made up. No test can be taken late without prior approval of the instructor.

**16. FERPA:\***

Students need to understand that their work may be seen by others. Others may see your work when being distributed, during group project work, or if it is chosen for demonstration purposes. Students also need to know that there is a strong possibility that your work may be submitted to other entities for the purpose of plagiarism checks.

**17. ACCOMMODATIONS: \***

Students requesting accommodations may contact Ryan Hall, Accessibility Coordinator at rhall21@sscc.edu or 937-393-3431, X 2604.

Students seeking a religious accommodation for absences permitted under Ohio’s Testing Your Faith Act must provide the instructor and the Academic Affairs office with written notice of the specific dates for which the student requires an accommodation and must do so no later than fourteen (14) days after the first day of instruction or fourteen (14) days before the dates of absence, whichever comes first. For more information about Religious Accommodations, contact Ryan Hall, Accessibility Coordinator at rhall21@sscc.edu or 937-393-3431 X 2604.

**18. OTHER INFORMATION\*\*\*:**

**SYLLABUS TEMPLATE KEY**

**\*** Item cannot be altered from that which is included in the master syllabus approved by the Curriculum Committee.

**\*\*** Any alteration or addition must be approved by the Curriculum Committee

**\*\*\*** Item should begin with language as approved in the master syllabus but may be added to at the discretion of the faculty member.