GROUND HANDLING AND SERVICING
Course Syllabus

Course Number: TRGA-1103
OCAS Code: None
Course Length: 42 Hours
Career Cluster: Transportation, Distribution & Logistics
Career Pathway: Aviation Maintenance Technology
Career Major(s): General Aviation

Pre-requisite(s): This course covers the operation of aircraft engines, ground movement and taxying of aircraft, servicing, towing and securing of aircraft.

Textbooks:
- Dale Crane, Dictionary of Aviation Terms, Aviation Supplies and Academics, 1997
- FAA, FAR Handbook for Aviation Maintenance Technicians, Jeppesen, Sanders, Inc.. 2001
- FAA, Standards for Aviation Maintenance Handbook, Jeppesen, Sanders, Inc.. 1985

Course Objectives:

A. Lesson: FIRE SAFETY
1. Discuss classes of fires.
2. Discuss fire extinguisher safety procedures.
3. Match fire-extinguishing agents to classes of fires.
4. Demonstrate the proper use of fire extinguishers.
5. Discuss fire safety requirements contained in CFR 14 part 139.

B. Lesson: SERVICING AND SECURING AN AIRCRAFT
1. Define terms related to aircraft ground handling and servicing to their correct definitions.
2. Explain aircraft tiedown procedures.
4. Discuss aircraft jacking and hoisting.
5. Explain the usage of ground support equipment.
6. Discuss safety procedures related to aircraft servicing.
7. Discuss aircraft servicing. (Gen.F8,F9)
8. Describe common aircraft fuel contaminants and prevention of fuel contamination. (Gen. F11)
9. Discuss aircraft fuels, fueling and defueling procedures and safety requirements.
10. § Identify and select aircraft fuels. (Level 2) (App. B,F,21) (Gen.F10,F14)

C. Lesson: GROUND OPERATION AND AIRCRAFT MOVEMENT
1. Discuss safety during aircraft ground handling and servicing.
2. Describe engine run-up procedures. (Gen F13)
3. § Perform reciprocating engine run-up. (Level 2) (App. B,F,20) (Gen.F1,F3,F7,F12,F15)
4. Discuss taxiing an aircraft.
5. Identify standard FAA hand signals used for ground handling fixed-wing and rotary-wing aircraft. (Gen.F6)
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6. Discuss aircraft ground handling. (Gen.F5)
7. Discuss towing safety requirements
8. Explain proper towing procedures.
9. § Perform as a signal person for a taxiing aircraft. (Level 2) (App. B,F,20) (Gen F6)
10. § Perform aircraft taxiing. (Level 2) (App. B,F,20) (Gen F5)

D. Lesson: FUEL FARM OPERATIONS
1. Discuss fuel truck and fuel equipment safety requirements.
2. Discuss the proper procedures for transferring fuel to and from a fuel truck.
3. § Complete a fuel truck/equipment daily, monthly and/or periodic inspection.
4. Discuss aircraft fuel service procedures.
5. § Fuel an aircraft. (Level 2) (App. B,F,20)(Gen F8,F9,F10)

Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

Grading Procedures:
1. Students are graded on theory and shop practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, F=0-69%.

Description of Classroom, Laboratories, and Equipment: Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit: The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility: The student must maintain a grade point average of 2.0 or better.