

AEROSPACE MANUFACTURING (COMPOSITES/SHEET METAL)



Program Description:

Be a part of one of Tulsa's largest industries – aviation! Tulsa Tech's Aircraft Composites/Sheet Metal Technician Program will thrust you into the dynamic field of aviation manufacturing, providing you with highly specialized skills for repairing sheet metal and composite parts of aircraft. These repairs must be made to exacting tolerances, since they deal with the body and structure of the aircraft and have significant impact on the flying characteristics of the plane. **The Certificate of Completion in Aircraft Sheet Metal and/or Composites Technician** is designed to train students to the skills required to be an aircraft structural technician at Maintenance, Repair, and Overhaul facility (MRO), but the skills are readily transferred to other industries. The courses within the program meet FAA and American Composites Manufacturers Association (ACMA) requirements in the content areas and may be used as credited hours towards an FAA Aircraft Mechanic license with Airframe certification as well as ACMA Certified Composite Technician – Associate. See **Program Courses** for subjects covered.

Campus: Riverside.

Program Length: 150 hrs.

PROGRAM COURSES

COMPOSITES

AMCS 1000

Safety, Composites

Students will define safety terms, discuss safety practices and precautions. Students will discuss and apply personal, shop, hanger and chemical safety measures.

AMCS 1001

Math & Precision Measurements

Students will learn to use the appropriate mathematical formulas required to accurately perform the processes of layout, fabrication, and repair of composite materials as well as learn to use the instruments of precision measure.

AMCS 1002

Aircraft Structures And Material Inspection

Students will learn the fundamental properties and processes of the structural materials relevant in the aerospace industry.

AMCS 1003

Blueprints, Drawings & Structural Repair Manual

Students will learn to read engineering drawings and blueprints in order to fabricate components according to precise

specifications.

AMCS 1004

Aircraft Composite Materials & Manufacturing

Students will learn to use the tools and equipment associated with preparing the various layups and bonding techniques for the manufacture and repair of composites materials.

AMCS 1005

Aircraft Composite Repairs & Plastics

Students will learn to analyze damaged composite components and perform the appropriate technique to repair the material.

AMCS 1006

CCT Composite

Students will discuss and complete modules including: general composites knowledge, composites manufacturing processes, composites materials, gel coat application, open molding laminating techniques, controlled spraying, fluid handling equipment principles, composites plant safety and open molding quality assurance.

AMCS 1007

Mold Making

Students will differentiate between different types of molds and create molds to fabricate composite parts.

SHEET METAL

AMCS 1008

Safety, Sheet Metal

Students will define safety terms, discuss safety practices and precautions. Students will discuss and apply personal, shop, hanger and chemical safety measures.

AMCS 1009

Applied Math

Students will use the principles of simple machines, sound, fluid and heat dynamics. The relationship between pressure, volume and temperature of air masses and liquid will be covered. The student will study basic aerodynamics and the effect of atmospheric temperature, humidity, pressures and