

AIRFRAME AND AIRCRAFT POWERPLANT MAINTENANCE TECHNOLOGY - EVENING, AS

Technology and Health Division

Degree S0951

This program prepares students to enter employment as a certified airframe and powerplant technician in the aircraft maintenance industry. Training is given in the overhaul of various airframes and powerplants and their components. Completion of this program leads to an Associate in Science degree. Two state-awarded certificates are also available upon successful completion of this program - one certificate in Airframe Maintenance Technology and one certificate in Aircraft Powerplant Maintenance Technology. Excellent opportunities for employment exist in this area of training. Certain administrative, quality control, and flight personnel careers require the applicant to hold a valid A & P Certificate.

This program offers a day or evening program option. The only difference between the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and AIRM 65B are equivalent to evening program courses AIRM 95A, AIRM 95B, AIRM 96A, AIRM 96B, AIRM 97A, AIRM 97B, AIRM 98A, and AIRM 98B. Day program course AIRM 66A and AIRM 66B are equivalent to evening program courses AIRM 90A, AIRM 90B, AIRM 91A, AIRM 91B, AIRM 92A, AIRM 92B, AIRM 93A, and AIRM 93B. The evening program courses are offered in 9-week modules.

Successful completion of this program enables students to take the FAA examinations in Airframe, General, and Powerplant. Passing the General Exam plus the Airframe and/or Powerplant Exam provides certification as an Aircraft Maintenance Technician, which is required for employment in this field. Students desiring a bachelor's degree (transfer program) should consult with a counselor or advisor to discuss transferability of courses.

This degree requires the completion of General Education coursework plus the following:

Required Courses

Course Prefix	Course Name	Units
AIRM 70A	Aircraft Maintenance Electricity and Electronics	3
AIRM 70B	Aircraft Maintenance Electricity and Electronics	3
AIRM 71	Aviation Maintenance Science	6
AIRM 72	Aircraft Materials and Processes	1.5
AIRM 73	Aircraft Welding	1.5
AIRM 90A	Airframe Theory	3
AIRM 90B	Airframe Wood, Fabric, and Paint	3
AIRM 91A	Airframe Aluminum Repair and Plastics	3
AIRM 91B	Airframe Composites, Rigging, and Inspection	3
AIRM 92A	Airframe Hydraulics and Pneumatics	3
AIRM 92B	Airframe Fuel and Environmental Systems	3
AIRM 93A	Airframe Warning and Fire Systems	3
AIRM 93B	Aircraft Communication, Navigation, Radar, and Autopilot Systems	3
AIRM 95A	Aircraft Powerplant Theory	3

AIRM 95B	Aircraft Powerplant Inspection and Maintenance	3
AIRM 96A	Aircraft Turbine Engines	3
AIRM 96B	Aircraft Propellers	3
AIRM 97A	Aircraft Power Plant Instrumentation	3
AIRM 97B	Aircraft Powerplant Fuel Systems	3
AIRM 98A	Aircraft Power Plant Ignition Systems	3
AIRM 98B	Aircraft Power Plant Lubricating Systems	3
Total Units		63

Recommended Electives

Course Prefix	Course Name	Units
AIRM 74	Aircraft Maintenance Technology - Work Experience	2
AIRM 80	Laboratory Studies in Aircraft Maintenance Technology	0.5
PHYS 1	Physics	4

Aircraft Maintenance Website (<http://www.mtsac.edu/aircraft-maintenance>)

The Airframe and Aircraft Powerplant Maintenance Technology program is accredited by the Federal Aviation Administration (FAA).

Contact:

Federal Aviation Administration (FAA) 800 Independence Avenue, SW Washington, DC 20591 1(800) 835-5322 www.faa.gov (<http://www.faa.gov>)

Explore Your Future in Airframe & Aircraft Powerplant Maintenance Technology AS Degree - Evening

The **Guided Pathway of Study** grid below offers a semester by semester plan for achieving the AS degree in Airframe & Aircraft Powerplant Maintenance Technology (Evening) *as recommended by content Faculty Members and Counselors*. This **Guided Pathway of Study** assumes the student is able to take 12-15 units per semester.

If the number of units you are able to take are fewer than 12-15 per semester, or you are eligible for English other than English 1A, and Math other than Math 71, *please make an appointment with a counselor* who will assist you with developing your personal **Guided Pathway of Study** for this degree.

Course	Title	Units
First Year		
Semester 1		
AIRM 65A	Aircraft Powerplant Theory	13
AIRM 70A	Aircraft Maintenance Electricity and Electronics	3
		Units
		16
Interession 1		
AIRM 71	Aviation Maintenance Science	6
AIRM 72	Aircraft Materials and Processes	1.5
AIRM 73	Aircraft Welding	1.5
		Units
		9
Semester 2		
AIRM 65B	Aircraft Powerplant Systems	13

AIRM 70B	Aircraft Maintenance Electricity and Electronics	3
	Units	16
Intersession 2		
MATH 71	Intermediate Algebra	5
	Units	5
Second Year		
Semester 1		
AIRM 66A	Aircraft Airframe Maintenance Structures	13
	Units	13
Intersession 1		
SPCH 1A	Public Speaking	4
ENGL 1A	Freshman Composition	4
	Units	8
Semester 2		
AIRM 66B	Aircraft Airframe Maintenance Systems	13
	Units	13
Intersession 2		
A General Education from Area C Arts is recommended here. ARTS 22 is recommended by the Aircraft Maintenance Technology program. ¹		3
A General Education from Area E Humanities is recommended here. SPAN 1 is recommended by the Aircraft Maintenance Technology program.		3
	Units	6
Third Year		
Semester 1		
HIST 1	History of the United States (General Education Recommendation; or any Area D Social, Political, Economical; History Background course) ¹	3
SOC 1	Introduction to Sociology (General Education Recommendation; or any Area D Social, Political, Economical; History Background course) ¹	3
PHYS 1	Physics (General Education Recommendation; or any Area B Physical Universe course)	4
KIN 34	Fitness for Living	3
	Units	13
	Total Units	99

- Determine several possible solutions for dealing with a given situation and then decide which solution(s) are ethical and which are not.
- Demonstrate proper use of aircraft repair equipment.
- Apply knowledge of aeronautics, aircraft maintenance, and aviation regulations.
- Inspect an aircraft/aircraft component and determine if the unit conforms to industry established standards.

Review Student Learning Outcomes (SLOs) for this program.

¹ The AS Degree in Airframe & Aircraft Powerplant Maintenance - Day is designed for transfer to a California State University (CSU). Find the Area course listings here: CSU GE Course Listings (<http://catalog.mtsac.edu/programs/transferring-to-4-year-institutions/#thecaliforniastateuniversitytext>)

Program Learning Outcomes

Upon successful completion of this program, a student will be able to:

- Connect learned theory with real-world problems and develop a logical solution to the problem.
- Locate, interpret, and apply technical data from industry manuals and apply that technical data to a maintenance situation.