

AERONAUTICAL STUDIES

Overview

TTC's Division of Aeronautical Studies is designed to satisfy the need for trained aerospace workers in the fields of aircraft maintenance and aircraft manufacturing.

Classes for the Aircraft Maintenance programs are offered only at the Berkeley Campus and are designed to lead towards Federal Aviation Administration licensing or certification for airframe and powerplant. This program offers both an associate degree and certificates in aircraft maintenance leading to FAA airframe and powerplant mechanic certification. Classes for the Aircraft Manufacturing program are offered at the Main Campus as a two-semester certificate program. Students may enter either program at the start of any semester.

General Information

As with all TTC programs, students interested in Aeronautical Studies programs should consult with a faculty advisor to discuss program requirements, class times and frequency of offerings. For more information, call 843.574.6796.

Cancellation Policy

TTC reserves the right to cancel courses due to inadequate enrollment.

Programs of Study

Associate Degree Programs

Aircraft Maintenance Technology

Certificate Programs

Aircraft Assembly

Aircraft Maintenance Airframe

Aircraft Maintenance General

Aircraft Maintenance Powerplant

Aircraft Maintenance Technology

Associate in Industrial Technology

Credit Requirements: 92 Semester Credit Hours

Day

The Aircraft Maintenance Technology program prepares students to sit for the certification exam of the Federal Aviation Administration as airframe and/or powerplant technicians. Students also are prepared for employment repairing aircraft, engines and related systems with airlines, government agencies, aircraft manufacturers and aircraft service companies. Opportunities for career advancement include lead technician, authorized inspector, shop supervisor, maintenance director or business owner. The program is licensed by the Federal Aviation Administration.

For entry into this program the student must be a high school graduate or possess a GED and take TTC's placement test or meet the College's SAT or ACT requirements.

Recommended Sequence of Courses

First Semester – Fall

ACM 101	General Regulations	2
ACM 102	Aviation Sciences	3
ACM 105	Basic Aircraft Electricity	4
ACM 110	Aircraft Drawings	1
ACM 115	Ground Handling and Servicing	3
ACM 120	Materials and Corrosion Control	4
		Total 17

Second Semester – Spring

ACM 114	Fluid Lines and Fittings	1
ACM 125	Wood Structures, Coverings and Finishes	2
ACM 135	Sheet Metal and Non-metallic Structures	4
ACM 145	Aircraft Welding	2
ACM 165	Hydraulic and Pneumatic Systems	3
CPT 101	Introduction to Computers	3
		Total 15

Third Semester – Summer

ACM 150	Assembly and Rigging	3
ACM 155	Aircraft Environmental Systems	3
ACM 160	Utility and Warning Systems	3
ACM 167	Landing Gear Systems	3
HSS 201	Issues in Humanities	3
		Total 15

Fourth Semester – Fall

ACM 170	Aircraft Electrical Systems	4
ACM 172	Aircraft Fuel Systems	1
ACM 174	Airframe Inspection	1
ACM 201	Lubricating Systems	2
ACM 205	Ignition and Starting Systems	3
ACM 245	Powerplant Fuel Systems	4
MAT 155	Contemporary Mathematics	3

Total 18

Fifth Semester – Spring

ACM 220	Turbine Engines	3
ACM 234	Propellers and Components	4
ACM 240	Engine Electrical Instrumentation and Fire Protection	3
ACM 250	Induction Cooling and Exhaust	3
PSY 201	General Psychology	3

Total 16

Sixth Semester – Summer

ACM 210	Reciprocating Engine Overhaul	4
ACM 212	Engine Installation	3
ACM 226	Engine Inspection	1
ENG 101	English Composition I	3

Total 11

Aircraft Assembly Technology

Certificate in Industrial Technology

Credit Requirements: 25 Semester Credit Hours

This program prepares students for employment in the aviation manufacturing field by providing instruction in the basic theory of aircraft design and construction, aircraft materials, and tools utilized in aircraft assembly.

Admission into this program requires qualifying scores on SAT, ACT or the TTC placement test.

High school graduation is not required if you are at least 18 years old.

Recommended Sequence of Courses

First Semester

AMF 103	Introduction to Aviation	3
AMF 104	Basic Aviation Sciences	3
AMF 109	Aircraft Materials and Hand Tools	3
AMF 111	Aircraft Corrosion Control	1
AMF 116	Aircraft Fluid Lines	2

Total 12

Second Semester

AMF 132	Aircraft Sheet Metal Assembly	3
AMF 137	Aircraft Composite Structures	3
AMF 142	Aircraft Auxiliary Systems	2
AMF 147	Aviation Electrical Systems	3
AMF 152	Aircraft Flight Control Systems	2

Total 13

Aircraft Maintenance Airframe

Certificate: Industrial Technology

Credit Requirements: 29 Semester Credit Hours

This certificate, along with the General and Powerplant certificates, prepares the student to sit for the certification exams required by the Federal Aviation Administration to become certified airframe and powerplant maintenance technicians. Students are prepared for employment repairing aircraft, engines and related systems with airlines, government agencies, aircraft manufacturers and aircraft service companies.

For admission into this program the student must be a high school graduate or possess a GED and take TTC's placement test or meet the College's SAT or ACT requirements.

Recommended Sequence of Courses

First Semester – Spring

ACM 125	Wood Structures, Coverings and Finishes	2
ACM 135	Sheet Metal and Non-metallic Structures	4
ACM 145	Aircraft Welding	2
ACM 165	Hydraulic and Pneumatic Systems	3

Total 11

Second Semester – Summer

ACM 150	Assembly and Rigging	3
ACM 155	Aircraft Environmental Systems	3
ACM 160	Utility and Warning Systems	3
ACM 167	Landing Gear Systems	3

Total 12

Third Semester – Fall

ACM 170	Aircraft Electrical Systems	4
ACM 172	Aircraft Fuel Systems	1
ACM 174	Airframe Inspection	1

Total 6

Aircraft Maintenance

General

Certificate: Industrial Technology

Credit Requirements: 18 Semester Credit Hours

This certificate, along with the Airframe and Powerplant certificates, prepares the student to sit for the certification exams required by the Federal Aviation Administration to become certified airframe and powerplant maintenance technicians. Students are prepared for employment repairing aircraft, engines and related systems with airlines, government agencies, aircraft manufacturers and aircraft service companies.

For admission into this program the student must be a high school graduate or possess a GED and take TTC's placement test or meet the College's SAT or ACT requirements.

Recommended Sequence of Courses

First Semester – Fall

ACM 101	General Regulations	2
ACM 102	Aviation Sciences	3
ACM 105	Basic Aircraft Electricity	4
ACM 110	Aircraft Drawings	1
ACM 115	Ground Handling and Servicing	3
ACM 120	Materials and Corrosion Control	4
		Total 17

Second Semester – Spring

ACM 114	Fluid Lines and Fittings	1
		Total 1

Aircraft Maintenance

Powerplant

Certificate: Industrial Technology

Credit Requirements: 30 Semester Credit Hours

This certificate, along with the General and Airframe certificates, prepares the student to sit for the certification exams required by the Federal Aviation Administration to become certified airframe and powerplant maintenance technicians. Students are prepared for employment repairing aircraft, engines and related systems with airlines, government agencies, aircraft manufacturers and aircraft service companies.

For admission into this program the student must be a high school graduate or possess a GED and take TTC's placement test or meet the College's SAT or ACT requirements.

Recommended Sequence of Courses

First Semester – Fall

ACM 201	Lubricating Systems	2
ACM 205	Ignition and Starting Systems	3
ACM 245	Powerplant Fuel Systems	4
		Total 9

Second Semester – Spring

ACM 220	Turbine Engines	3
ACM 234	Propellers and Components	4
ACM 240	Engine Electrical Instrumentation and Fire Protection	3
ACM 250	Induction Cooling and Exhaust	3
		Total 13

Third Semester – Summer

ACM 210	Reciprocating Engine Overhaul	4
ACM 212	Engine Installation	3
ACM 226	Engine Inspection	1
		Total 8

