

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, aircraft avionics and aircraft manufacturing.

Classes for the Aircraft Maintenance and Avionics Maintenance programs are offered only at the Berkeley Campus. The Aircraft Maintenance program is designed to lead toward Federal Aviation Administration (FAA) licensing or certification for airframe and powerplant while the Avionics Maintenance program is designed to lead toward Federal Communications Commission (FCC) and NCATT certification. Both programs offer either an associate degree or certificates that will lead toward certification by their respective certifying agencies. Classes for the Aircraft Assembly program are offered at the Main Campus as a two-semester certificate program. Students may enter any program at the start of any semester upon approval of an academic advisor.

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

General Technology

Avionics Maintenance Technology

Certificate Programs

Aircraft Assembly Technology

Aircraft Maintenance Airframe

Aircraft Maintenance General

Aircraft Maintenance Powerplant

Avionics Maintenance Technology

Aircraft Maintenance Technology

Associate in Applied Science

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
REQ SSC	Select one course from Behavioral/ Social Sciences listing on page B-3	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
REQ HUM	Select one course from Humanities listing on page B-3	3

Total 15

Aeronautical Studies

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
Total 15		

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
REQ MAT	Select one math course from Mathematics/Natural Sciences listing on page B-4	3
Total 16		

Sixth Semester – Summer

ACM 210	Reciprocating Engine Overhaul	4
ACM 212	Engine Installation	3
ACM 226	Engine Inspection	1
CPT 101	Introduction to Computers	3
ENG 101	English Composition I	3
Total 14		

General Technology

Associate in Applied Science

Credit Requirements: 68 Semester Credit Hours

The General Technology major allows students to select course work necessary to become multiskilled technicians. In addition to completing the college's core curriculum, students also complete course work in at least two technical areas. The following is an example of a career path available. The secondary paths may be substituted for courses in other programs' primary path. Interested students should talk with their advisors.

Avionics Maintenance Technology Course Display

Core Curriculum Requirements

CPT 101	Introduction to Computers	3
ENG 101	English Composition I	3
REQ HUM	Select one course from Humanities listing on page B-3	3
REQ MAT	Select one math course from Mathematics/Natural Sciences listing on page B-4	3
REQ SSC	Select one course from Behavioral/Social Sciences listing on page B-4	3

Primary Path

AVT 101	Basic Electricity	4
AVT 105	Aircraft Electricity	4
AVT 110	Aircraft Electronic Circuits	4
AVT 115	Aircraft Digital Circuits	3
AVT 120	Aviation Electronic Communications	4
AVT 125	Aviation Data Communications	3
AVT 140	Avionics Standard Practices	3
AVT 145	Avionics Circuit Repair	3
AVT 150	Aircraft Navigation Systems	3
AVT 155	Aircraft Pulse Systems	3
AVT 160	Aircraft Radar Systems	3
AVT 165	Avionics General Regulations	2
AVT 170	Program and Applications Review	1

Secondary Path

(These are suggested courses. Other courses may be substituted from other primary technical programs. See your program advisor.)

ACM 101	General Regulations	2
ACM 102	Aviation Sciences	3
ACM 110	Aircraft Drawings	1
ACM 115	Ground Handling and Services	3
ACM 120	Materials and Corrosion Control	4

Avionics Maintenance Technology Career Path

Credit Requirements: 68 Semester Credit Hours

Recommended Sequence of Courses

First Semester – Fall

AVT 101	Basic Electricity	4
AVT 105	Aircraft Electricity	4
AVT 110	Aircraft Electronic Circuits	4
AVT 115	Aircraft Digital Circuits	3

Total 15