AVIONICS

The Avionics program is designed to prepare students for entry-level positions as installation, maintenance, and repair technicians for avionic equipment in private, corporate, and commercial aircraft.

The aircraft industry is quickly evolving its level of sophisticated navigational and communications systems to include microprocessor-based systems in all areas of the airframe. This requires a new competent work force capable in the state-of-the-art technology of the future.

This two-semester certificate program combines theory and laboratory practices with hands-on application in actual aircraft. Upon completion, the student will be ready for employment in this fast growing and exciting field.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
FALL			
General Electricity	AMT	A151	(3)
Aircraft Avionics Circuits	AMT	A182	(4)
Avionics Rules & Regulations	AMT	A188	(1.5)
INTERSESSION			
Airframe & Powerplant Instrument	AMT	A180	(2.5)
SPRING			
Airframe Comm/Nvgation Sys	AMT	A181	(2)
Aircraft Avionics Systems	AMT	A184	(4)
		Total:	**(17)**

ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

HELICOPTER THEORY AND MAINTENANCE

This program provides students with the general knowledge of rotary wing development, technology, construction, and a general survey of the helicopter industry.

This program also provides a good understanding of the helicopter type aircraft to interested individuals, technicians, and pilots.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
FALL			
Theory and Operations	AMT	A140	(3)
SPRING			
Helicopter Maintenance	AMT	A290	(4)
		Total:	**(7)**

AVIATION PILOT TRAINING

This program of study academically prepares men and women of all ages for entry into the world of commercial aviation. In addition to airline flying many positions are available worldwide for trained commercial pilots. Businesses large and small hire corporate pilots for executive transport. Government agencies, both federal and state, hire commercial pilots for law enforcement, land management, wildlife management and staff logistics. Pilots are also in demand for fire suppression, emergency medical transportation and charter.

The curriculum is designed for students with no flying experience. Courses will systematically prepare individuals academically for the certificates and ratings required to operate aircraft as a commercial pilot. In addition, flight lab courses are offered as suggested electives enabling the student to complete all aspects of their training under the auspices of the college and to accrue the flight hours necessary for licensing as a commercial pilot.

The course of study can be tailored to individual requirements. The small business owner who only needs to use an aircraft for personal transportation can end their training with the Private Pilot Certificate of Achievement (semester 1) or continue on through semester 2 and preparation for the Instrument rating. A student seeking a career as a professional pilot would progress through the curriculum to earn a Commercial Pilot Certificate of Specialization along with a Turbine Transition Skill Certificate. All training is conducted in accordance with Federal Aviation Regulation (FAR) Part 61 and Part 141. All flight training labs are conducted in accordance with an approved FAR Part 141 syllabus.

CERTIFICATE OF ACHIEVEMENT

Required Courses

Course			Units
Required Courses			
Private Pilot Ground School	APT	A130	(5)
Aviation-Navigation	APT	A132	(3)
Aviation-Meteorology	APT	A133	(3)
Instrument Ground School	APT	A134	(3)
Aerodynamics	APT	A138	(3)
Commercial Pilot Ground School	APT	A139	(3)
Turbine Transition	APT	A145	(3)
Basic Air Transportation	APT	A180	(3)
Human Factors/Crew Mgmt	APT	A192	(3)
Select six (6) units from the following:			
Private Pilot Flight Lab	APT	A120	(2)
Instrument Pilot Flight Lab	APT	A121	(2)
Commercial Pilot Flight Lab	APT	A122	(2)
Advanced Private Pilot Flight Lab	APT	A124	(2)
Flight Instructor Ground School	APT	A140	(3)
Flight Simulator Lab	APT	A141	(3)
		Total:	**(35)**

ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

AIRLINE AND TRAVEL CAREERS

—*See Hospitality, Travel & Tourism*

AVIATION PILOT TRAINING

PROFESSIONAL UPGRADE CERTIFICATES

The following Professional Upgrade Certificates are intended for the advanced student or the employed aerospace professional who desires advanced or recurrent training in a specific area. Certificates may be obtained from the Technology Division office by bringing in official records showing the successful completion of required courses.

Program Outcome

Students will develop the analytical and critical thinking skills necessary for completion of flight training and federally administered written examinations.

TURBINE TRANSITION

The Turbine Transition certificate covers turbine aircraft systems, performance, weight and balance and crew resource management. Courses are intended to explore the topics that meet the aeronautical knowledge requirements for the Airline Transport Pilot rating or Flight Engineer Basic knowledge test. The student will also become familiar with crew resource management and how it is utilized in the cockpits of commuter, corporate, and airline flight decks.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Aerodynamics	APT	A138	(3)
Turbine Aircraft Systems	APT	A145	(3)
Human Factors/Crew Resource Management	APT	A192	(3)
		Total:	**(9)**

PRIVATE PILOT

A program of study that helps to prepare students for private pilot flight instruction and the FAA Private Pilot Knowledge Test. This course meets the aeronautical knowledge requirements of Federal Aviation Regulation (FAR) Part 61.105.

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Private Pilot Ground School	APT	A130	(5)
Aviation-Meteorology	APT	A133	(3)
		Total:	**(8)**
Suggested Electives			
Private Pilot Flight Lab	APT	A120	(2)

INSTRUMENT PILOT

A program of study that helps to prepare a pilot, already in possession of a Private Pilot license for certification as an Instrument rated pilot. Ten hours of flight time accrued in the simulator lab can be applied towards the flight time requirements of the Instrument rating. This course meets the aeronautical knowledge requirements of Federal Aviation Regulation (FAR) Part 61.65(b).

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Aviation-Navigation	APT	A132	(3)
Instrument Ground School	APT	A134	(3)
Flight Simulator Lab	APT	A141	(3)
		Total:	**(9)**
Suggested Electives			
Advanced Private Pilot Flight Lab	APT	A124	(2)
Instrument Pilot Flight Lab	APT	A121	(2)
Private Pilot Flight Lab	APT	A120	(2)

COMMERCIAL PILOT

A program of study that helps prepare a pilot, already in possession of a Private Pilot license flight instruction to meet the licensing requirements Commercial Pilot as well as preparing the student for the Commercial Pilot Knowledge Test. This course meets the aeronautical knowledge requirements of Federal Aviation Regulation (FAR) Part 61.125

CERTIFICATE OF SPECIALIZATION

Required Courses

Course			Units
Aerodynamics	APT	A138	(3)
Commercial Pilot Ground School	APT	A139	(3)
Basic Air Transportation	APT	A180	(3)
		Total:	**(9)**
Suggested Electives			
Commercial Pilot Flight Lab	APT	A122	(2)

ASSOCIATE DEGREE

Complete the Certificate of Achievement and either the Associate in Science Graduation Requirements as outlined in the Graduation Requirements section of the catalog.