

# B.S. AVIATION SCIENCE - PROFESSIONAL PILOT

## OVERVIEW

The Aviation Science program at A&M–Central Texas provides students with a well-rounded curriculum with strong conceptual foundations in aviation science and management. A&M–Central Texas offers the only state-supported four-year professional pilot program in Texas.

The Aviation Science-Professional Pilot program offers both junior- and senior-level coursework. All lower-level core aviation and flight courses are transferred into A&M–Central Texas, as we do not have a flight school. This includes the required FAA Instrument Rating and the FAA Commercial Flight Certificate.

Students in the Professional Pilot option concentrate on aircraft flight operations, and are also well-prepared with qualifications as a professional pilot with a science/technology orientation. Advanced aeronautical ratings complemented by business administration, management, and communication skills for professional pilots in the civil and military aviation industries are the focus of the curriculum.

## Program Level Student Learning Outcomes

The student will be able to:

- Comprehend technical aspects of advanced aircraft systems.
- Explain the laws, regulations, and legal issues affecting the aviation industry.
- Identify the issues affecting aviation safety and safety management.
- Communicate proficiency in writing and oral presentations.
- Evaluate the implications of an ethical dilemma from a variety of ethical frameworks.
- Demonstrate management knowledge proficiency.

Technical Specialization (42 hours required):

The following courses are recommended for articulation upon receipt of licensure and compliance with these specific conditions:

1. The requesting student has earned:

- A Commercial Pilot License and Instrument Rating, issued by the Federal Aviation Administration (FAA) and taught under Federal Aviation Regulation (FAR) Part 141 rules from an institution of higher learning (IHL).
- The IHL has an authorized FAA Air Agency Certificate for both air and ground courses under Part 141 provisions.
- The requesting student's Commercial and Instrument certificates must be attached to this form.
- With receipt of the qualified certificates and conditions listed above, TAMUCT will grant up to 42 credit hours of the lower-level aviation requirements upon enrollment into the Professional Pilot or Aviation Management degree programs.
- If attending the Aviation Management – Maintenance Concentration, attach both the FAA issued Airframe and Powerplant license and TAMUCT will grant up to 33 credit hours of the lower-level requirements, if taken at an approved FAA Part 147 school.

2. If a student's Instrument and Commercial pilot's Licenses were obtained outside a partnering IHL and under the provisions of FAR Part 61 standards, TAMUCT may grant up to 42 credit hours of the lower-level aviation requirements upon passing an online equivalency test of the FAA written exam for each license. (See #5)

3. If as student possesses an Airline Transport Rating (ATP), TAMUCT will grant up to 42 credit hours of the lower-level aviation requirements upon enrolling into the Professional Pilot or Aviation Management degree programs.

4. All collegiate Aviation Ground courses taught under FAR Part 141 approval from any IHL will be accepted towards the required 42 credit hours for lower-level aviation requirements for TAMUCT Professional Pilot degree.

5. If a student who has licensure through Instrument and Commercial Pilot ratings under FAR Part 61/141 conditions wishes to receive non-standard credit for all attendant collegiate ground courses based upon the FAA licensure alone, they can take a FAA written equivalent exam, administered under an online testing program for Private Pilot, Instrument and Commercial Pilot. Passing is 70%. All three tests must have a passing grade before the core 42 credit hour Aviation Ground courses will be applied to the Technical Specialization.

6. Aviation Management - Maintenance Concentration student must show recency of experience with licensure, not to exceed five years absence from the field.

7. In each of the above actions, the student must meet minimum enrollment standards for the General Education Academic Core before such actions are applied and credited to the student's degree plan.

## Bachelor of Science Aviation Science - Professional Pilot Program Requirements

Refer to the General Education Core Requirements (<https://catalog.tamuct.edu/undergraduate-information/general-education-core-requirements/>) page for more information on the CORE REQ coursework. The Field of Study (FOS) courses are listed in the footnotes (if applicable). At least 120 credit hours are required for the degree.

\*Below is a suggested course sequence plan of the degree's required courses. Please see an advisor to create an individual plan for graduation.

Code	Title	Credit Hours
<b>First Year</b>		
Fall		
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
Spring		
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
<b>Second Year</b>		

Fall		
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
ASCI, AVIM, AIRP Elective <sup>1</sup>		3
CORE REQ Communications (010)		3
Spring		
CORE REQ Communications (010)		3
CORE REQ Government/Political Science (070)		3
CORE REQ Language, Philosophy, and Culture (040)		3
CORE REQ Life and Physical Sciences (030)		3
ECON 2301	Principles of Macroeconomics (CORE REQ 090)	3
<b>Third Year</b>		
Fall		
CORE REQ American History (060)		3
CORE REQ Government/Political Science (070)		3
CORE REQ Life and Physical Sciences (030)		3
CORE REQ Mathematics (020)		3
CORE REQ Creative Arts (050)		3
Spring		
ECON 2302	Principles of Microeconomics (CORE REQ 090)	3
CORE REQ American History (060)		3
CORE REQ Social and Behavioral Sciences (080)		3
AVSC 3301	Air Carrier Operations	3
AVSC 4308	Aviation Safety	3
<b>Fourth Year</b>		
Fall		
AVSC 3302	Aviation Techniques of Instruction	3
AVSC 4301	Aviation Law	3
AVSC 4309	Aviation Security	3
AVSC 4395	Capstone – Professional Pilot (Crew Resource Management)	3
AVSC 4302	Advanced Aircraft Systems <sup>2</sup>	3
AVSC 3321	Airline Management <sup>2</sup>	3
Spring		
AVSC 3307	Aviation History	3
BUSI 3301	Professionalism and Communication in Business	3
MKTG 3301	Marketing	3
MGMT 3350	Management and Organizational Behavior	3
<b>Total Credit Hours</b>		<b>120</b>

marketing, and business courses taught through the College of Business Administration (COBA), from which several classes originate. Those classes have a passing grade of 60%.

<sup>1</sup> Refer to Technical Specialization Credit page for more information.

<sup>2</sup> These courses may be taken during the summer.

<sup>3</sup> The Federal Aviation Administration's test standard for all aviation-related courses is a minimum passing grade of 70%. All Aviation Science (AVSC) courses reflect that standard; a course grade below 70% is a course failure. This policy does not apply to management,