

### AVIATION SCIENCES DEGREE

The Bachelor of Science in Aviation Sciences (B.S.A) is a four-year undergraduate program with options that allow you to serve on the ground or take to the skies. While at Baylor, you will have exposure to all the energizing student life activities you would expect from a Big 12 University, inside a faith-based community that fosters personal and professional growth. Baylor prepares you for a FULL-THROTTLE career in the aeronautics industry.

### AVIATION ADMINISTRATION MAJOR

In partnership with Baylor's Hankamer School of Business, the Aviation Administration major is for students who wish to pursue a career on the business side of the aviation industry. The degree focuses on a variety of courses in Aviation, Business, and Communication, merging the individual concepts into a strong foundation that prepares you for key operational and managerial positions within the aviation community.

### AVIATION SCIENCES MAJOR

Our Aviation Sciences major propels you into the atmosphere as you attend classes THOUSANDS of feet off the ground! In the Professional Pilot - Airplane concentration, you will earn your Private Pilot's License, Instrument Rating, Commercial License, Certified Flight Instructor (CFI-A) Certificate, and either a Certified Flight Instructor - Instrument (CFI-I) or Multi-Engine Rating by your senior year. You will then have the opportunity to work as a flight instructor in your final year. Graduates from the airplane concentration are eligible for a 500 hour reduction in the amount of flight hours (required to fly for airlines) and students can benefit from our Airline Partnerships that offer signing bonuses, airline benefits, and accelerated employment after graduation. Students in the Professional Pilot - Helicopter concentration earn a Private Pilot's License, Instrument Rating, Commercial License, Certified Flight Instructor (CFI) and Certified Flight Instructor - Instrument (CFI-I) Certificates, and Night Vision Goggle Training. All flight training is conducted at the Baylor University Flight Center located at the Waco Regional Airport and operated by Universal Flight Concepts - where safety is top priority.

# BAYLOR UNIVERSITY

## Institute for Air Science

A HIGHER Calling

### WHAT TO DO AFTER COLLEGE?

Airline Pilot	Airport Management
Corporate Pilot	Missionary Pilot
Military Pilot	Space Exploration/Astronaut
Aerial Firefighter	Aerial Search & Rescue
Aviation Analyst	Weather Researcher
FBO Management	Aviation Analyst
Flight Instructor	Test Pilot
Cargo Pilot	Simulator Instructor

### DISTINCTIVE ASPECTS OF THE PROGRAM

- FAA Part 141 certified FLIGHT TRAINING.
- LOWEST flight instructor-to-student ratio - you will fly as often as you need to!
- STATE-OF-THE-ART facility and equipment.
- Get to the AIRLINES faster with our FAA approved 500-hour reduction for the Restricted ATP license.
- PERSONAL ATTENTION of highly qualified, industry authenticated instructors and faculty.
- Nationally ranked, Carnegie-classified \*RESEARCH 1\* university.
- Immediate career opportunities with AIRLINE PARTNERSHIPS.
- UNIQUE blend of big-school opportunities at a Christian University where the CHRISTIAN PERSPECTIVE is valued and encouraged.

### CONTACT INFORMATION

Mailing Address: One Bear Place #97413, Waco, Texas 76798-7413  
Physical Address: Hankamer Academic Center  
1428 S. 5th Street, Suite H040, Waco, TX 76708  
Phone: 254-710-3563  
Email: [Aviation@baylor.edu](mailto:Aviation@baylor.edu)  
[www.baylor.edu/aviation](http://www.baylor.edu/aviation)



### FACULTY

The faculty and staff provide an outstanding support system throughout your Baylor experience. Our students are our top priority! Small class sizes mirror the unique community of pilots and the airline industry, and create an engaging learning environment offering personal first-name basis relationships with professors.

### DIRECTOR

**William B. (Trey) Cade III, Ph.D.**  
Baylor Institute of Air Science  
Ph.D. in Physics, Utah State University  
B.S. in Meteorology, Texas A&M University

### ASSISTANT DIRECTOR, CHIEF OF FLIGHT OPERATIONS, and CHIEF GROUND INSTRUCTOR

**Timothy J. Compton, M.Sc.**  
Baylor Institute of Air Science  
M.Sc. in Environmental Science, Baylor University  
B.S. in Aeronautical Science, Saint Louis University  
Commercial Pilot and Certified Flight Instructor

### LECTURER

**Russell S. (Rusty) Sloane**  
Master of Business Administration, Baylor University  
Bachelor of Arts - The Virginia Military Institute



Baylor Institute for Air Science is a member of the Aviation Accreditation International Board (AABI), the National Business Aviation Association (NBAA), Women in Aviation, International (WAI), and the University Aviation Association (UAA), a professional association that fosters excellence in collegiate aviation education.



## US NEWS & WORLD REPORT RANKINGS (2024)

National Universities #93 - in Collegiate Aviation #3  
Most Innovative Schools #38 - in Collegiate Aviation #4  
Best Undergraduate Teaching #22 - in Collegiate Aviation #2  
First Year Experiences #5 - in Collegiate Aviation #1

## MORNING CONSULT (2023)

Top 10 Most Trusted Universities - #2 Among Parents

## WALL STREET JOURNAL IN STUDENT ENGAGEMENT (2022)

Nationally #4

# STUDENT TESTIMONIALS

## BAYLOR AVIATION

"I've enjoyed the people I met, friends I made, and the amazing faculty who've impacted my life in numerous ways. I also enjoyed the unique opportunities that have been afforded to me at the academic and extracurricular environment." - Michael A.

"The small size of the program came with various benefits that wouldn't be there for us otherwise. All of the instructors know you and care about you, and the department makes us feel loved and treats us well." - Daniel A.

## BAYLOR UNIVERSITY FLIGHT CENTER OPERATING BY UNIVERSAL FLIGHT CONCEPTS

"I have been a student at many flight schools, but Universal Flight Concepts has provided the best quality training and efficiency I have ever received. They worked well with my college schedule yet kept me flying consistently. I am a better pilot because of it today. "Universal Flight Concepts provides a level of training and efficiency that cannot be found anywhere else. Period!" - Patrick P.

"It was a great time learning at UFC. From the great instructors to the state-of-the-art aircraft, I always felt safe during every flight and always excited to come and fly. With that, it was a great honor when I was finished to be asked to come and instruct for UFC." - Dylan E.

"Universal for me was crucial in preparing me towards achieving my dream of becoming an airline pilot. In training I was held to a high standard and received excellent instruction on how to achieve that standard. As an instructor, I did my best to keep that standard for my students, and with myself. This helped me to understand and to strive for excellence and professionalism, crucial for any pilot, but especially for the airlines. I could not have made it without Baylor and UFC." - Lewis C.

"Thanks to Universal I was more than prepared for the airlines when I graduated. With rigorous training in a fast paced environment, I didn't feel quite as overwhelmed when I got to training for Skywest. In addition to the training I also can't thank Universal enough for giving me the opportunity to be able to have the required minimum hours only a month after I graduated." - Kaitlin E.

"To be blessed enough to train at UFC, is to experience growth, state-of-the-art equipment, and people who care so much about your safety and success. The number of aircraft available and set scheduling ensure that students are on track for a rating they desire within the short span of 4-5 months. The community and staff built at this special place make flight school not only a place to build a career, but a second home. If you believe in yourself, work hard, and stay organized, success will be the only option." - Lexi G.

"UFC is a strong, fast paced environment with high professional standards. Going to UFC I know I am getting the highest quality training there is, and I am proud to call it my flight school." - Garey L.

# AVIATION SCIENCES ENROLLMENT INFORMATION

We offer majors in **Aviation Administration** and **Aviation Sciences** with a concentration in **Professional Pilot – Airplane or Helicopter**.

## PROFESSIONAL PILOT CONCENTRATION – AIRPLANE OR HELICOPTER

- ✈ The capacity for the Professional Pilot concentration is limited and highly competitive. An application process for new pilot students is integrated into Baylor's GoBaylor application system. Once students declare their intended concentration, they must follow all outlined steps in GoBaylor and meet each of the posted deadlines to be accepted into the program and be offered and retain a flight slot.
- ✈ To review specific degree requirements and current cost estimates associated with the Professional Pilot concentration, please refer to the Student Information tab on our website at [www.baylor.edu/aviation](http://www.baylor.edu/aviation).
- ✈ Fixed-Wing (airplane) flight training courses required for the degree include Private Pilot, Instrument, Commercial, and Certified Flight Instructor (CFI-A) and will have the option of earning either Certified Flight Instructor – Instrument (CFI-I) or the Multi-Engine certificate. Additional fees are associated with all flight courses.
- ✈ Rotary-Wing (helicopter) flight training courses required include Private Pilot, Instrument, Commercial, Certified Flight Instructor (CFI), Certified Flight Instructor – Instrument (CFII), and Night Vision Goggle training. Additional fees are associated with all flight courses.
- ✈ Pilot licenses and ratings earned outside of Baylor can be transferred for academic credit, but after starting at Baylor, all Part 141 flight training will be completed at Baylor University's Flight Center operated by Universal Flight Concepts at the Waco Regional Airport – 7727 Karl May Drive, Waco, TX 76708.

## FAA Class I or Class II Medical Certificate Requirement

- All Professional Pilot students are required to obtain a Class I (Airplane Concentration) or Class II (Helicopter Concentration) Medical Certificate from an FAA Aviation Medical Examiner (AME). Class III certificates or less will not be accepted for the purpose of flight training.
- Class I or Class II medical certificates must be presented to Baylor Institute for Air Science within 45 days of advising with an Aviation Science Advisor or by August 1 (whichever comes first) otherwise the flight slot may be forfeited.

### Instructions for Obtaining Medical Certificate:

- Build a profile and complete an application through the [FAA MedXPress](http://FAA.MedXPress) website prior to making an appointment with an Aviation Medical Examiner - profile and application are only good for 60 days.
- Use the interactive tool at the [www.faa.gov/pilots/amelocator](http://www.faa.gov/pilots/amelocator) website to select an AME by location.

## Pilot Flight Slots

- Applications for the Professional Pilot concentration are reviewed by the Institute for Air Science and flight slots are offered to accepted students.
- Once a flight slot is offered, the student is given a brief window to decline or commit to accepting the slot, otherwise it will be forfeited and offered to the next eligible student.

## Enrolling Students

- Must monitor GoBaylor and respond to email requests within the specified timeframe.
- Should have a plan to have their own transportation to Baylor University Flight Center.



- Must have an FAA Class I (Airplane) or Class II (Helicopter) Medical Certificate and present to the program no later than August 1. Not doing so by August 8, will result in a drop from any registered flight course.
- Must have the following original (NO PHOTOCOPIES) documentation readily available to present to Baylor University Flight Center:
  - Original, unexpired passport OR
  - Current, unexpired driver's license, military identification card, or other government issued identification, PLUS an official birth certificate.

### **VETERAN ADMINISTRATION EDUCATION BENEFITS**

- ✂ Anyone intending to use Veteran's Administration educational benefits should be aware that, because of the VA's rules, the GI Bill cannot be used to pay for costs associated with the Aviation Sciences Major. Please contact the Baylor Veteran Coordinator at 254-710-8241 or an Aviation Sciences Advisor at (254-710-3563) for specific questions or other available options.

### **CAMPUS VISITS**

- ✂ Schedule a tour of Baylor campus through Baylor Undergraduate Admissions [Visit Experience](#). Select the style of visit that best suits your preference and be sure to request a meeting with the Aviation Sciences Department and the flight school facilities while you're in town.

### **BAYLOR CHANGE OF MAJOR STUDENTS**

- ✂ Students should contact the Aviation Sciences department prior to changing their major to discuss potential graduation delays, additional costs, medical requirements, and space availability.

### **FRESHMEN & TRANSFER APPLICANTS**

- ✂ Apply to Baylor University through [GoBaylor](#) and monitor student account and Baylor email for any messages, required tasks or deadlines.
- ✂ If selecting the Professional Pilot concentration, applicants will be directed to a separate application for admission into the flight training program.
- ✂ Applicants will be notified via GoBaylor if they have been accepted to Baylor and the concentration.
- ✂ All students who are offered an available slot in the major, must "ACCEPT" the offer as indicated and by the established deadline.

# Baylor Bachelor of Science in Aviation Sciences (BSA) Degree

## Fall 2024 – Summer 2025 Cost Estimate

2024 - 2025 BAYLOR TUITION COSTS		
Tuition Fee per Spring Semester (Full-Time)		Full-Time Student Tuition Estimate for Four Years
<b>Tuition &amp; Required Fees</b>	<b>\$29,050</b>	<b>Total \$232,400</b>

- Additional costs and fees may apply. Please explore the Student Financial Services website at [www.Baylor.edu/sfs](http://www.Baylor.edu/sfs) for cost of attendance calculator and other pertinent information.
- Baylor calculates tuition/fees at a flat rate per academic year (Fall and Spring) for students taking 12 hours or more (full-time) per semester.

The fees below are assigned to the required courses for either concentration (airplane or helicopter) of the Aviation Sciences degree. For a complete picture of the estimated total cost, you would add each of the required course fees to the total four-year Baylor tuition estimate.

FLIGHT COURSE FEES - FALL 2024 - SUMMER 2025				
Flight Course Name	Course Number AVS Prefix	Aircraft	Estimated Completion Hours	Flight Course Fee
<b>Fixed Wing Flight Courses - Aircraft Model Options - Tecnam P2006, P2008 &amp; P2010</b>				
Private Pilot	1331	P2010	54	\$28,675
Instrument	1332	P2010	54	\$29,075
Commercial I	2333	P2010	60	\$25,765
Commercial II	2334	P2010	64	\$30,525
Certified Flight Instructor (CFI)	3236	P2010	29	\$16,790
Certified Flight Instructor - Instrument (CFII)	4237	P2010	19	\$11,060
<b>Total Estimate Airplane</b>				<b>\$141,890</b>
<b>Rotary Wing Flight Courses - Aircraft Model Options Robinson R22 &amp; R44</b>				
Private Pilot	1361		56	\$31,608
Commercial/Instrument - I	2362		56.5	\$49,410
Commercial/Instrument - II	2363		66	\$34,795
Certified Flight Instructor	3364		36	\$23,945
Certified Instrument Instructor - Part 61	4265		16	\$16,696
Night Goggle Vision Flight - Part 61	4266		6	\$7,500
<b>Total Estimate Helicopter</b>				<b>\$163,954</b>

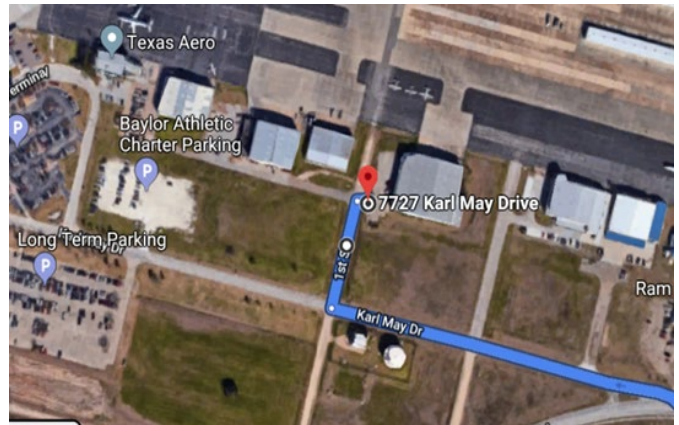
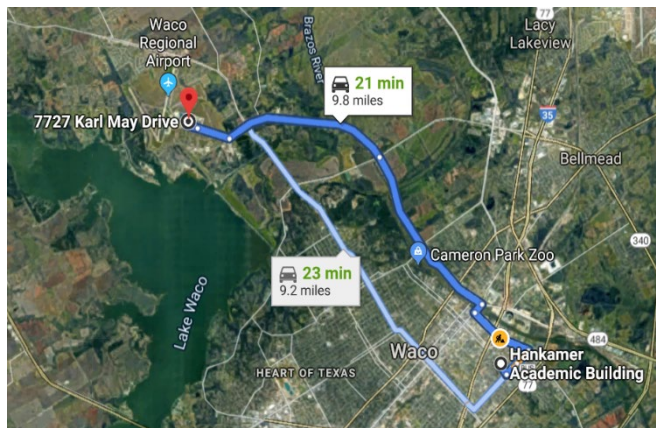
- Flight course fees are applied once students are registered for flight courses and are automatically factored into the student's total cost of attendance for the purpose of calculating financial need at Baylor. This figure will not change the award package from Baylor University, but an increased cost of attendance can change outside award packages and loan eligibility. Additional external funding may be necessary to complete the degree.
- Approximately 90% of students attending Baylor qualify for merit or need-based scholarships, grants, student loans, and/or part-time student employment, but it is incumbent upon the student to search and apply for them. Many aviation-related scholarships and grants are listed on our website at [www.Baylor.edu/aviation](http://www.Baylor.edu/aviation).
- Costs are based on the number of hours estimated to complete each course at UFC and may vary depending on each student's individual progress and the type of aircraft used.
- Included in the flight course estimates are plane usage, fuel expenses, additional fuel surcharge, flight instruction, ground instruction, FAA Knowledge Test, and FAA Examiner Fee with the required number of check rides. The use of a flight simulator may take the place of hours in the airplane as allowed per FAA regulations. All unused flight account funds are fully reimbursed.





Local Phone: 254-300-5686  
Toll-Free: 866-435-9844  
Fax: 254-313-1419

Scan with the camera on your smart phone for navigation  
to address of flight center:  
7727 Karl May Drive, Waco, TX



From Hankamer Academic Center – Baylor University

Follow S. 5<sup>th</sup> Street to Bagby Avenue – make LEFT on Bagby

Follow Bagby to S. University Parks Drive - make LEFT at traffic light onto S. University Parks Drive

Follow S. University Parks to Franklin Avenue – make RIGHT at traffic light onto Franklin

Follow Franklin across river to traffic light on S. Martin Luther King Jr. Blvd – make LEFT onto S. MLK

Follow MLK Blvd. past traffic light on Lake Shore Drive and continue STRAIGHT on Steinbeck Bend Drive

Follow Steinbeck Bend Drive to Karl May Drive and make a RIGHT at stop sign towards Waco Airport

Continue on Karl May Drive and look for the green Baylor University Flight Center sign on the right



# Aviation Sciences Major Professional Pilot - Airplane

BAYLOR  
AVIATION SCIENCES



## **Bachelor of Science in Aviation Sciences: Professional Pilot – Airplane Concentration**

The Professional Pilot – Airplane Concentration of the Aviation Sciences Major is for students wanting a career as a pilot. Each student graduating with the Professional Pilot – Airplane Concentration will have flying qualifications to the Commercial Pilot level (including instrument and multi-engine ratings), along with a Certified Flight Instructor (CFI) certificate. Flight training is conducted by the Baylor University Flight Center at the Waco Regional Airport.

**Aviation Sciences Major, Professional Pilot – Airplane Concentration.....125 hrs total**

**I. Basic Requirements.....42 hrs**

### **A. Chapel**

- Two semesters of CHA 1086, 1087, 1088, 1090, or 1091 (no credit hours)

### **B. Creative Arts Experience**

- Attend 12 events (no credit hours)

### **C. English – 3 hrs**

- ENG 2310 American Literary Cultures

### **D. History – 3 hrs**

- HIS 1300 The United States in Global Perspective

### **E. Political Science – 3 hrs**

- PSC 1387 The US Constitution

### **F. Religion – 6 hrs**

- REL 1310 Christian Scriptures
- REL 1350 Christian Heritage

### **G. Courses Selected from Distribution Lists – 18 hrs**

- Communication and Media Literacy – 3 hrs
- Contemporary Social Issues – 3 hrs
- Fine Arts – 3 hrs
- Formal Reasoning – met in Sec III
- Literature in Context – 3 hrs

- Research Writing – 3 hrs
- Scientific Method I: Course with Lab Experience – met in Sec III
- Scientific Method II: Grand Challenges in Science – 3 hrs

#### **H. Foreign Language and Culture – 8 to 12 hrs**

- **OPTION ONE:** (two courses – 8 hrs)
  - Complete intensive language courses 1412 and 2412 in German or Spanish
  - Both courses must be from the same language and both must be completed in residence
- **OPTION TWO:** (three courses – 9 hrs)
  - Complete one Modern or Classical language through third-semester level ( 2310)
  - Choose from Arabic, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Korean, Latin, Portuguese, Russian, Spanish, or Swahili
  - 6 hours must be in residence
- **OPTION THREE:** (four courses – 12 hrs)
  - Complete two Classical languages (Greek, Latin, Hebrew) 1301 and 1302
  - 6 hours must be in residence

#### **I. Lifetime Fitness Activity Course (LF) – 1 hr**

### **II. Aviation Science courses.....70 hrs**

#### **A. Ground and Flight Training Courses – 31 hrs**

- AVS 1301 Air Navigation
- AVS 1302 Private Pilot Ground School
- AVS 1303 Instrument Ground School
- AVS 2304 Commercial Ground School
- AVS 3305 Instructor Ground School
- AVS 1331 Private Pilot Flight
- AVS 1332 Instrument Flight
- AVS 2333 Commercial Flight I
- AVS 2334 Commercial Flight II
- AVS 3236 Certified Flight Instructor (CFI)
- AVS 4237 Certified Flight Instructor – Instrument (CFII) OR 3235 Multi-Engine Flight

#### **B. Aviation Science courses – 39 hrs**

- **Required Courses – 24 hrs**
  - AVS 1300 Introduction to Aviation
  - AVS 1313 Introduction to Meteorology
  - AVS 3310 Aviation Law
  - AVS 3311 Aircraft Accident Investigation and Prevention
  - AVS 3312 Aviation Safety
  - AVS 3315 Aviation Meteorology
  - AVS 4314 Advanced Aircraft Systems
  - AVS 4315 Aerodynamics



- **Elective Courses – Choose 15 hrs**

- AVS 3320 Flight Crew Career Development
- AVS 3350 Introduction to Space Weather
- AVS 3370 Aviation Leadership
- AVS 4376 Aviation Management
- AVS 4317 Aerospace Propulsion Systems
- AVS 4318 Avionics Systems Design (ELC 4318)
- AVS 4375 Crew Resource Management
- AVS 4390 Internship in Aviation
- AVS 4306 Instructor – Instrument Ground School
- AVS 4237 Certified Flight Instructor – Instrument (CFII)
- AVS 4238 MEI Flight

**III. Required courses in other fields.....13 hrs**

- Computer Science (CSI) 3303 or 3305 or 4301 Information Technology
- Math (MTH) 1321 Calculus I (Prereq: Grade of B or better in MTH 1320 or a score of 80 or better on the ALEKS)
- Math (MTH) 1322 Calculus II **OR** Statistics (STA) 2381 Introductory Statistical Methods (Prereq: Grade of C or better in MTH 1321)
- Physics (PHY) 1408 General Physics for Natural & Behavioral Sciences I (Algebra Based) **OR** 1420 General Physics I (Calculus-based) (Prereq: MTH 1321 or concurrent enrollment)

**Baylor University - Aviation Sciences**  
**Suggested Four Year Program Planner**  
**PROFESSIONAL PILOT - AIRPLANE**

Student's Name \_\_\_\_\_

FIRST YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course Name	cr
			CHA 1088	Chapel Forum	---	CHA 1088	Chapel Forum	---
			AVS 1300 (f)	Intro to Aviation	3	MTH 1321	Calculus I	3
			AVS 1301 (f)	Air Navigation	3	History 1300	The United States in Global ...	3
			AVS 1313 (f)	Intro to Meteorology	3	AVS 3315 (s)	Advanced Meteorology	3
			AVS 1302 (f)	Private Pilot Ground School	3	AVS 1303	Instrument Ground School	3
			AVS 1331 *	Private Pilot Flight	3	AVS 1332 *	Instrument Flight	3
	Total credits				15		Total credits	15

SECOND YEAR								
Summer	Course name	cr	Fall	Course Name	cr	Spring	Course name	cr
			Foreign Language	(1st course 3 or 4 hours)	4	Foreign Language	(2nd course 3 or 4 hrs)	4
			Communication & Media	<i>Chosen from list †</i>	3	REL 1310	Christian Scriptures	3
			MTH 1322/STA 2381	Calculus II / Statistics	3	Research Writing	<i>Chosen from list †</i>	3
			AVS 2304	Commercial Ground School	3	Fine Arts	<i>Chosen from list †</i>	3
			AVS 2333 *	Commercial Flight I	3	AVS 2334 *	Commercial Flight II	3
	Total credits	0		Total credits	16		Total credits	16

THIRD YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course name	cr
			AVS 3311 (f)	Accident Investigation & Prev.	3	ENG 2310	American Literary Cultures	3
			REL 1350	Christian Heritage	3	AVS Elective <sup>1</sup>	AVS Elective (1 of 5)	3
			PSC 1387	American Constitution	3	AVS 3312 (s)	Aviation Safety	3
			PHY 1408/1420	Physics Nat Behavior Sci I	4	LF	Lifetime Fitness	1
			Foreign Language	(3 hrs if needed)		CSI 3303/3305/4301	Computer Science Course	3
			AVS 3305	Instructor Ground School	3	AVS 4237 (or 3235) *	CFI-I Flight (or Multi-engine)	2
			AVS 3236 *	CFI Flight	2			
	Total credits	0		Total credits	18		Total credits	15

FOURTH YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course name	cr
			Scientific Method II	<i>Chosen from list †</i>	3	Literature in Context	<i>Chosen from list †</i>	3
			AVS 3310 (f)	Aviation Law	3	AVS 4314 (s)	Advanced Aircraft Systems	3
			AVS 4315 (f)	Aerodynamics for Flight	3	Contemp. Social Issues	<i>Chosen from list †</i>	3
			AVS Elective <sup>1</sup>	AVS Elective (2 of 5)	3	AVS Elective <sup>1</sup>	AVS Elective (4 of 5)	3
			AVS Elective <sup>1</sup>	AVS Elective (3 of 5)	3	AVS Elective <sup>1</sup>	AVS Elective (5 of 5)	3
	Total credits	0		Total credits	15		Total credits	15

Notes:

(f) Fall only course; (s) Spring only course

<sup>1</sup> Selected from AVS 2242, 2243, 3320, 3350, 3370, 4376, 4318, 4375, 4390

† Chosen from a list of qualifying courses

\* Extra flight fees apply

Credits to complete the BSA 125

# Aviation Sciences Major Professional Pilot - Helicopter



## **Bachelor of Science in Aviation Sciences: Professional Pilot – Helicopter Concentration**

The Professional Pilot – Helicopter Concentration of the Aviation Sciences Major is for students wanting a career as a helicopter pilot. Each student graduating with the Professional Pilot – Helicopter Concentration will have flying qualifications to the Commercial Pilot level (including instrument rating), along with Night Vision Goggle Training and Certified Flight Instructor (CFI) and Certified Flight Instructor – Instrument (CFI-I) certificates. Flight training is conducted by the Baylor University Flight Center at the Waco Regional Airport.

### **Aviation Sciences Major, Professional Pilot – Helicopter Concentration.....125 hrs total**

#### **I. Basic Requirements.....42 hrs**

##### **A. Chapel**

- Two semesters of CHA 1086, 1087, 1088, 1090, or 1091 (no credit hours)

##### **B. Creative Arts Experience**

- Attend 12 events (no credit hours)

##### **C. English – 3 hrs**

- ENG 2310 American Literary Cultures

##### **D. History – 3 hrs**

- HIS 1300 The United States in Global Perspective

##### **E. Political Science – 3 hrs**

- PSC 1387 The US Constitution

##### **F. Religion – 6 hrs**

- REL 1310 Christian Scriptures
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##### **G. Courses Selected from Distribution Lists – 18 hrs**

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#### **I. Lifetime Fitness Activity Course (LF) – 1 hr**

### **II. Aviation Science courses.....70 hrs**

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- AVS 1301 Air Navigation
- AVS 1302 Private Pilot Ground School
- AVS 1303 Instrument Ground School
- AVS 2304 Commercial Ground School
- AVS 3305 Instructor Ground School
- AVS 1361 Private Pilot Helicopter Flight
- AVS 2362 Instrument/Commercial 1 Helicopter Flight
- AVS 2363 Instrument/Commercial 2 Helicopter Flight
- AVS 3364 CFI Helicopter Flight
- AVS 4265 CFI-I Helicopter Flight
- AVS 4266 Night Vision Goggle Helicopter Flight

#### **B. Aviation Science courses – 39 hrs**

- **Required Courses – 24 hrs**
  - AVS 1300 Introduction to Aviation
  - AVS 1313 Introduction to Meteorology
  - AVS 3310 Aviation Law
  - AVS 3311 Aircraft Accident Investigation and Prevention
  - AVS 3312 Aviation Safety
  - AVS 3315 Aviation Meteorology
  - AVS 4314 Advanced Aircraft Systems
  - AVS 4315 Aerodynamics

- **Elective Courses – 15 hrs (Choose 5 courses)**
  - AVS 3320 Flight Crew Career Development
  - AVS 3350 Introduction to Space Weather
  - AVS 3370 Aviation Leadership
  - AVS 4376 Aviation Management
  - AVS 4317 Aerospace Propulsion Systems
  - AVS 4318 Avionics Systems Design (ELC 4318)
  - AVS 4375 Crew Resource Management
  - AVS 4390 Internship in Aviation

### **III. Required courses in other fields.....13 hrs**

- Computer Science (CSI) 3303 or 3305 or 4301 Information Technology
- Math (MTH) 1321 Calculus I (Prereq: Grade of B or better in MTH 1320 or a score of 80 or better on the ALEKS)
- Math (MTH) 1322 Calculus II **OR** Statistics (STA) 2381 Introductory Statistical Methods (Prereq: Grade of C or better in MTH 1321)
- Physics (PHY) 1408 General Physics for Natural & Behavioral Sciences I (Algebra Based) **OR** 1420 General Physics I (Calculus-based) (Prereq: MTH 1321 or concurrent enrollment)



**Baylor University - Aviation Sciences**  
**Suggested Four Year Program Planner**  
**PROFESSIONAL PILOT - HELICOPTER**

**Student's Name:** \_\_\_\_\_

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Summer	Course name	cr	Fall	Course name	cr	Spring	Course Name	cr
			CHA 1088	Chapel Forum	---	CHA 1088	Chapel Forum	---
			AVS 1300 (f)	Intro to Aviation	3	MTH 1321	Calculus I	3
			AVS 1301 (f)	Air Navigation	3	History 1300	The United States in Global ...	3
			AVS 1313 (f)	Intro to Meteorology	3	AVS 3315 (s)	Advanced Meteorology	3
			AVS 1302 (f)	Private Pilot Ground School	3	AVS 1303	Instrument Ground School	3
			AVS 1361 *	Private Pilot Helicopter Flight	3	AVS 2362 *	Inst/Com I Helicopter Flt	3
	Total credits				15		Total credits	15

SECOND YEAR								
Summer	Course name	cr	Fall	Course Name	cr	Spring	Course name	cr
			Foreign Language	(1st course 3 or 4 hours)	4	Foreign Language	(2nd course 3 or 4 hrs)	4
			Communication & Media	<i>Chosen from list †</i>	3	REL 1310	Christian Scriptures	3
			MTH 1322/STA 2381	Calculus II / Statistics	3	Research Writing	<i>Chosen from list †</i>	3
			AVS 2304	Commercial Ground School	3	Fine Arts	<i>Chosen from list †</i>	3
			AVS 2363 *	Inst/Com II Helicopter Flt	3	AVS 3364 *	CFI Helicopter Flight	3
	Total credits	0		Total credits	16		Total credits	16

THIRD YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course name	cr
			AVS 3311 (f)	Accident Investigation & Prev.	3	ENG 2310	American Literary Cultures	3
			REL 1350	Christian Heritage	3	AVS Elective <sup>1</sup>	AVS Elective (1 of 5)	3
			PSC 1387	American Constitution	3	AVS 3312 (s)	Aviation Safety	3
			PHY 1408/1420	Physics Nat Behavior Sci I	4	LF	Lifetime Fitness	1
			Foreign Language	(3 hrs if needed)		CSI 3303/3305/4301	Computer Science Course	3
			AVS 3305	Instructor Ground School	3	AVS 4266 *	NVG Helicopter Flight	2
			AVS 4265 *	CFI-I Helicopter Flight	2			
	Total credits	0		Total credits	18		Total credits	15

FOURTH YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course name	cr
			Scientific Method II	<i>Chosen from list †</i>	3	Literature in Context	<i>Chosen from list †</i>	3
			AVS 3310 (f)	Aviation Law	3	AVS 4314 (s)	Advanced Aircraft Systems	3
			AVS 4315 (f)	Aerodynamics for Flight	3	Contemp. Social Issues	<i>Chosen from list †</i>	3
			AVS Elective <sup>1</sup>	AVS Elective (2 of 5)	3	AVS Elective <sup>1</sup>	AVS Elective (4 of 5)	3
			AVS Elective <sup>1</sup>	AVS Elective (3 of 5)	3	AVS Elective <sup>1</sup>	AVS Elective (5 of 5)	3
	Total credits	0		Total credits	15		Total credits	15

Notes:

(f) Fall only course; (s) Spring only course

<sup>1</sup> Selected from AVS 3320, 3350, 3370, 4376, 4317, 4318, 4375, 4390

† Chosen from a list of qualifying courses

\* Extra flight fees apply

Credits to complete the BSA 125



# Aviation Administration Major

## **Bachelor of Science in Aviation Sciences – Aviation Administration**

The Aviation Administration Major of the Bachelor of Science in Aviation Sciences degree is for students wanting a career in the business side of the aviation industry. This major combines aviation courses with courses from Baylor's Hankamer School of Business.

**Bachelor of Science in Aviation Sciences – Aviation Administration.....124 hrs total**

**I. Basic Requirements.....46 hrs**

### **A. Chapel**

- Two semesters of CHA 1086, 1087, 1088, 1090, or 1091 (no credit hours)

### **B. Creative Arts Experience**

- Attend 12 events (no credit hours)

### **C. English – 3 hrs**

- ENG 2310 American Literary Cultures

### **D. History – 3 hrs**

- HIS 1300 The United States in Global Perspective

### **E. Political Science – 3 hrs**

- PSC 1387 The US Constitution

### **F. Religion – 6 hrs**

- REL 1310 Christian Scriptures
- REL 1350 Christian Heritage

### **G. Courses Selected from Distribution Lists – 22 hrs**

- Communication and Media Literacy – 3 hrs
- Contemporary Social Issues – 3 hrs

- Fine Arts – 3 hrs
- Formal Reasoning – met in Sec IV
- Literature in Context – 3 hrs
- Research Writing – 3 hrs
- Scientific Method I: Course with Lab Experience – 4 hrs
- Scientific Method II: Grand Challenges in Science – 3 hrs

#### **H. Foreign Language and Culture – 8 to 12 hrs**

- **OPTION ONE:** (two courses – 8 hrs)
  - Complete intensive language courses 1412 and 2412 in German or Spanish
  - Both courses must be from the same language and both must be completed in residence
- **OPTION TWO:** (three courses – 9 hrs)
  - Complete one Modern or Classical language through third-semester level ( 2310)
  - Choose from Arabic, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Korean, Latin, Portuguese, Russian, Spanish, or Swahili
  - 6 hours must be in residence
- **OPTION THREE:** (four courses – 12 hrs)
  - Complete two Classical languages (Greek, Latin, Hebrew) 1301 and 1302
  - 6 hours must be in residence

#### **I. Lifetime Fitness Activity Course (LF) – 1 hr**

### **II. Aviation Science (AVS) courses.....45 hrs**

#### **A. Required Courses - 36 hrs**

- AVS 1300 Introduction to Aviation
- AVS 1301 Air Navigation
- AVS 1302 Private Pilot Ground School
- AVS 1303 Instrument Ground School
- AVS 1313 Introduction to Meteorology
- AVS 3310 Aviation Law
- AVS 3311 Aircraft Accident Investigation and Prevention
- AVS 3312 Aviation Safety
- AVS 3315 Aviation Meteorology
- AVS 3370 Aviation Leadership
- AVS 4376 Aviation Management
- AVS 4377 Airport Management

#### **B. Elective Courses - 9 hrs (Choose 3 courses)**

- AVS 3350 Introduction to Space Weather
- AVS 4305 Special Topics in Aviation
- AVS 4323 The Environment and Economic Analysis (ENV 4323)
- AVS 4375 Crew Resource Management
- AVS 4386 Remote Sensing (GEO 4386)
- AVS 4390 Internship in Aviation
- AVS 4315 Aerodynamics

- AVS 4485 Introduction to Geographic Information Systems (GEOG 4485)
- AVS 4487 Advanced GIS Analysis (GEOG 4487)

### **III. Business Courses.....24 hrs**

- BUS 1305 Software Applications for Business Productivity and Decision Making
- ECO 1305 Issues in Economics for Non-Business Majors
- ACC 2301 Survey of Accounting
- MGT 3301 Managing People in Organizations
- MKT 3301 Marketing Concepts
- BUS 3302 Personal Financial Decisions
- ENT 3315 Starting and Managing a Business
- ENT 4325 Entrepreneurial Leadership

### **IV. Required courses in other fields.....9 hrs**

- Computer Science (CSI) 3303 or 3305 or 4301 Information Technology
- Math (MTH) 1321 Calculus I (Prereq: Grade of B or better in MTH 1320 or a score of 80 or better on the ALEKS)
- Statistics (STA) 1380 Elementary Statistics

BAYLOR UNIVERSITY  
Suggested Four Year Program Planner  
AVATION ADMINISTRATION

Student's Name: \_\_\_\_\_

FIRST YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course Name	cr
			CHA 1088	Chapel Forum	---	CHA 1088	Chapel Forum	---
			ECO 1305	Issues in Economics	3	HIS 1300	The United States in Global ...	3
			AVS 1300 (f)	Intro to Aviation	3	BUS 1305	Software Appl. For Business	3
			AVS 1301 (f)	Air Navigation	3	MTH 1321	Calculus I	3
			AVS 1313 (f)	Intro to Meteorology	3	AVS 3315 (s)	Advanced Meteorology	3
			AVS 1302 (f)	Private Pilot Ground School	3	AVS 1303	Instrument Ground School	3
	Total credits	0			15		Total credits	15

SECOND YEAR								
Summer	Course name	cr	Fall	Course Name	cr	Spring	Course name	cr
			Foreign Language	(1st course 3 or 4 hours)	4	Foreign Language	(2nd course 3 or 4 hrs)	4
			Research Writing	<i>Chosen from list †</i>	3	REL 1350	Christian Heritage	3
			REL 1310	Christian Scriptures	3	PSC 1387	American Constitution	3
			ACC 2301	Survey of Accounting	3	Fine Arts	<i>Chosen from list †</i>	3
			STA 1380	Elementary Statistics	3	Contemp. Social Issues	<i>Chosen from list †</i>	3
	Total credits	0		Total credits	16		Total credits	16

THIRD YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course name	cr
			BUS 3302	Personal Finance Decisions	3	AVS 3312 (s)	Aviation Safety	3
			CSI 3303/3305/4301	Computer Science	3	Scientific Method I	<i>Chosen from list †</i>	4
			MGT 3301	Managing People	3	Communication & Media	<i>Chosen from list †</i>	3
			AVS 3311 (f)	Accident Investigation & Prev.	3	ENG 2310	American Literary Cultures	3
			AVS 4376 (f)	Aviation Management	3	MKT 3301	Marketing Concepts	3
			Foreign Language	(3 hrs if needed)				
	Total credits	0		Total credits	15		Total credits	16

FOURTH YEAR								
Summer	Course name	cr	Fall	Course name	cr	Spring	Course name	cr
			ENT 3315	Starting & Managing a Business	3	Literature in Context	<i>Chosen from list †</i>	3
			AVS 3310 (f)	Aviation Law	3	ENT 4325	Entrepreneurial Leadership	3
			AVS 3370 (f)	Aviation Leadership	3	AVS 4377 (s)	Airport Management	3
			AVS Elective <sup>1</sup>	AVS Elective (2 of 3)	3	AVS Elective <sup>1</sup>	AVS Elective (3 of 3)	3
			AVS Elective <sup>1</sup>	AVS Elective (1 of 3)	3	LF	Lifetime Fitness	1
						Scientific Method II	<i>Chosen from list †</i>	3
	Total credits	0		Total credits	15		Total credits	16

Notes:

(f) Fall only course; (s) Spring only course

<sup>1</sup> Selected from AVS 3350, 4305, 4315, 4323, 4375, 4386, 4390, 4485, and 4487.

† Chosen from a list of qualifying courses

Credits to complete the BSA    124





## Baylor's Restricted Airline Pilot (R-ATP) Reduction Requirements

The Federal Aviation Administration (FAA) has recently awarded Baylor University Aviation Science the authority to certify our "Professional Pilot" degree graduates for an Airline Transport Pilot (ATP) certificate with reduced aeronautical experience (R-ATP). In order to be certified for the **maximum 500 hour reduction via 14 CFR §61.160(b)**, the student must:

1. Complete all requirements of the Bachelor of Science in Aviation Science (BSA) degree.
2. Complete FAA approved ground and flight training. Specifically:

**Required FAA Part 141 Ground School** (6 credit hours)

AVS 1303	Instrument Rating Ground School	w/ a minimum grade of "C" earned
AVS 2304	Commercial Pilot Ground School	w/ a minimum grade of "C" earned

**Required FAA Part 141 Flight Training** (6 credit hours)

AVS 1332	Instrument Flight	w/ a minimum grade of "C" earned
AVS 2334	Commercial Pilot Flight II	w/ a minimum grade of "C" earned

3. Complete an additional forty-eight (48) credit hours of FAA-approved collegiate aviation coursework from the following list of courses:

Additional Course Work

AVS 1300	Intro to Aviation	AVS 3320	Flight Crew Career Development
AVS 1301	Air Navigation	AVS 3350	Intro to Space Weather
AVS 1302	Private Pilot Ground	AVS 3370	Aviation Leadership
AVS 1313	Introduction to Meteorology	AVS 4237	CFI-I FLIGHT
AVS 1331	Private Pilot Flight	AVS 4238	Multi-Engine Instructor Flight
AVS 2333	Commercial Pilot I	AVS 4306	Instructor – Instrument Ground
AVS 3235	Multi-Engine Flight	AVS 4376	Aviation Management
AVS 3236	CFI-A Flight	AVS 4314	Advanced Aircraft Systems
AVS 3305	CFI-A Ground	AVS 4315	Aerodynamics
AVS 3310	Aviation Law	AVS 4317	Aerospace Propulsion Systems
AVS 3311	Aircraft Accident Investigation	AVS 4318	Avionics System Design
AVS 3312	Aviation Safety	AVS 4375	Crew Resource Management
AVS 3315	Advanced Aviation Meteorology	AVS 4390	Internship

A student who completes all requirements from paragraphs 1 and 2 and completes at least 30 credit hours but less than 60 credit hours of additional coursework from paragraph 3 can be certified for a **250 hour reduction via 14 CFR §61.160(d)**.