BAYLOR UNIVERSITY
Institute for Air Science

A HIGHER Calling

SECONDARY MAJOR IN AVIATION SCIENCES
If your heart is committed to a major in another academic field, but you are still drawn to aviation, you can enroll in our Aviation Science Secondary Major. It requires fewer credit hours, and the only flight requirement is your Private Pilot’s License.

AVIATION SCIENCES MINOR
Requiring 18 hours of aviation courses, the minor comprises an extremely versatile education paired with your selected major of choice. It requires no flight training and is available for any students interested in learning more about the dynamic aviation industry.

WHAT TO DO AFTER COLLEGE?
Airline Pilot
Corporate Pilot
Military Pilot
Aerial firefighter
Aviation Analyst
TSO Management
Flight Instructor
Cargo Pilot

Airport Management
Missionary Pilot
Space Exploration/Astronaut
Aerial Search & Rescue
Weather Researcher
Aviation Analyst
Test 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 “HIGH RESEARCH ACTIVITY” 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

FACTORIES
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.

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
www.baylor.edu/aviation

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 and CHIEF GROUND INSTRUCTOR
Timothy J. Compton, M.Sc.
Assistant Director, 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

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 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 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.


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.
"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.

"Universal Flight Concepts is a student focused program that put an emphasis on making sure I finished each rating within the time promised as well as offering a flight instructor position upon completion of the program." - 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.
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.

- 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 (recommended) or Class II (required) 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 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 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 FAA Class I or Class II Medical Certificate and present to the program no later than August 1.

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

Any students planning to use Veteran Administration (VA) educational benefits should be aware that the Aviation Sciences degree program is no longer certified by the VA and therefore is NOT eligible for funding. 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.

Upon complete review and understanding the potential impact changing majors could pose, complete a change of major request through BearWeb or directly by using this DATA FORM LINK.

Specify your intended concentration - Professional Pilot – Airplane or Helicopter.

Schedule an advising appointment with your assigned Aviation Science Advisor AND College of Arts & Sciences Advisor prior to registration deadlines.

Class I or Class II FAA Medical Certificate is required for Professional Pilot students within 45 days of Aviation Sciences advising or the flight slot may be revoked.

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
Summer 2021 – Spring 2022 Cost Estimate

- Additional costs and fees may apply. Please explore the Student Financial Services website at www.Baylor.edu/sfs for additional 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.

### 2021 - 2022 BAYLOR TUITION COSTS

<table>
<thead>
<tr>
<th>Tuition &amp; Required Fees</th>
<th>Full-Time Student Tuition Estimate for Four Years</th>
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</thead>
<tbody>
<tr>
<td>$25,116</td>
<td>Total $200,928</td>
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### SUMMER 2021 - SPRING 2022 UNIVERSAL FLIGHT CONCEPTS (UFC) PART 141 COSTS

#### Fixed Wing Flight Courses - Airplane Used - Tecnam P2006, P2008 & P2010

<table>
<thead>
<tr>
<th>Flight Course Name</th>
<th>Course Number AVS Prefix</th>
<th>Estimated Completion Hours</th>
<th>Flight Course Fee</th>
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<tr>
<td>Private Pilot</td>
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<td>Instrument</td>
<td>1332</td>
<td>50</td>
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<tr>
<td>Commercial I</td>
<td>2333</td>
<td>60</td>
<td>$20,398</td>
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<tr>
<td>Commercial II</td>
<td>2334</td>
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<td>Certified Flight Instructor (CFI)</td>
<td>3236</td>
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<tr>
<td>Certified Flight Instructor - Instrument (CFII)</td>
<td>4237</td>
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<td>$8,254</td>
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Total Estimate Airplane: $111,312

#### Rotary Wing Flight Courses - Helicopter Option Robinson R22 & R44

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<th>Flight Course Name</th>
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<tr>
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<tr>
<td>Commercial/Instrument - I</td>
<td>2362</td>
<td>55</td>
<td>$46,600</td>
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<tr>
<td>Commercial/Instrument - II</td>
<td>2363</td>
<td>65</td>
<td>$51,975</td>
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<tr>
<td>Certified Flight Instructor</td>
<td>3364</td>
<td>35</td>
<td>$32,550</td>
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<tr>
<td>Certified Instrument Instructor - Part 61</td>
<td>4265</td>
<td>15</td>
<td>$15,950</td>
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<td>Night Goggle Vision Flight - Part 61</td>
<td>4266</td>
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<td>$7,500</td>
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Total Estimate Helicopter: $200,600

- UFC flight training costs are factored into the student's total cost of attendance for the purpose of calculating financial need at Baylor. This is done by Student Financial Services at the time the student is registered for their courses. Award packages do not take into consideration the possibility of flight courses and therefore may not cover the costs entirely. Additional external funding may be necessary.
- 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.
- Costs are based on the number of hours estimated to complete each course at UFC and may vary depending on 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.
Follow S. 5th 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
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

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 4310 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**

- 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)
<table>
<thead>
<tr>
<th>Student's Name ____________________________________</th>
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### Baylor University - Aviation Sciences
### Suggested Four Year Program Planner
### PROFESSIONAL PILOT - AIRPLANE

#### FIRST YEAR

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<th>cr</th>
<th>Fall</th>
<th>Course name</th>
<th>cr</th>
<th>Spring</th>
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<td>AVS 1300 (f) Intro to Aviation</td>
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<td>History 1300 The United States in Global</td>
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<td>AVS 1302 (f) Private Pilot Ground School</td>
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<td>AVS 1303 Instrument Ground School</td>
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<tr>
<td></td>
<td>AVS 1331 * Private Pilot Flight</td>
<td>3</td>
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<td>AVS 1332 * Instrument Flight</td>
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**Total credits** 15

#### SECOND YEAR

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<td>REL 1310 Christian Scriptures</td>
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<td>MTH 1322/STA 2381 Calculus II / Statistics</td>
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<td>Research Writing</td>
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<td>AVS 2333 * Commercial Flight I</td>
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<td>AVS 2334 * Commercial Flight II</td>
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**Total credits** 0

#### THIRD YEAR

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<td>AVS 3305 Instructor Ground School</td>
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<td>AVS 4237 (or 3235) * CFI Flight (or Multi-engine)</td>
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**Total credits** 0

#### FOURTH YEAR

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**Total credits** 0

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Notes:
- (f) Fall only course; (s) Spring only course
- * Chosen from a list of qualifying courses
- Extra flight fees apply
- Credits to complete the BSA 125

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AVS_1405O 3-10-2021
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 Google 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
- 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)
  o Complete intensive language courses 1412 and 2412 in German or Spanish
  o Both courses must be from the same language and both must be completed in residence

• OPTION TWO: (three courses – 9 hrs)
  o Complete one Modern or Classical language through third-semester level (2310)
  o Choose from Arabic, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Korean,
    Latin, Portuguese, Russian, Spanish, or Swahili
  o 6 hours must be in residence

• OPTION THREE: (four courses – 12 hrs)
  o Complete two Classical languages (Greek, Latin, Hebrew) 1301 and 1302
  o 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 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
  o AVS 1300 Introduction to Aviation
  o AVS 1313 Introduction to Meteorology
  o AVS 3310 Aviation Law
  o AVS 3311 Aircraft Accident Investigation and Prevention
  o AVS 3312 Aviation Safety
  o AVS 3315 Aviation Meteorology
  o AVS 4314 Advanced Aircraft Systems
  o AVS 4315 Aerodynamics
• **Elective Courses – 15 hrs (Choose 5 courses)**
  o AVS 3320 Flight Crew Career Development
  o AVS 3350 Introduction to Space Weather
  o AVS 3370 Aviation Leadership
  o AVS 4310 Aviation Management
  o AVS 4317 Aerospace Propulsion Systems
  o AVS 4318 Avionics Systems Design (ELC 4318)
  o AVS 4375 Crew Resource Management
  o 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**

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Total credits: 16

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Total credits: 15

Notes:
- (f) Fall only course; (s) Spring only course
- Selected from AVS 3320, 3350, 3370, 4310, 4317, 4318, 4375, 4390
- * Chosen from a list of qualifying courses
- Extra flight fees apply

Credits to complete the BSA: 125

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**SECOND YEAR**

**THIRD YEAR**

**FOURTH YEAR**

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**Notes:**
- (f) Fall only course; (s) Spring only course
- Selected from AVS 3320, 3350, 3370, 4310, 4317, 4318, 4375, 4390
- * Chosen from a list of qualifying courses
- Extra flight fees apply
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

I. Basic Requirements

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)
  o Complete intensive language courses 1412 and 2412 in German or Spanish
  o Both courses must be from the same language and both must be completed in residence

• OPTION TWO: (three courses – 9 hrs)
  o Complete one Modern or Classical language through third-semester level (2310)
  o Choose from Arabic, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Korean, Latin, Portuguese, Russian, Spanish, or Swahili
  o 6 hours must be in residence

• OPTION THREE: (four courses – 12 hrs)
  o Complete two Classical languages (Greek, Latin, Hebrew) 1301 and 1302
  o 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 4310 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
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<td>Total credits</td>
<td>16</td>
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**Notes:**

- (f) Fall only course; (s) Spring only course
- * Selected from AVS 3350, 4305, 4315, 4323, 4375, 4386, 4390, 4485, and 4487.
- † Chosen from a list of qualifying courses

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**Credits to complete the BSA:** 124
Secondary Major in Aviation Sciences

The Baylor Institute for Air Science offers a Secondary Major in Aviation Sciences. Secondary Majors are for students who wish to supplement their baccalaureate degree with a rich intellectual experience in a second field of specialization outside of their primary degree. The Secondary Major is currently only available to students who already have a Private Pilot's license or are willing to complete one on their own. Please contact the Institute for Air Science office for more information.

Secondary Major in Aviation Sciences ................................................................. 33 hrs total

I. Air Pilot (AIRP) courses - 2 hrs

- AVS 1331 Private Pilot Flight (credit obtained with a Private Pilot's License)

II. Aviation Science (AVS) courses - 31 hrs

- Required Courses – 22 hrs
  - AVS 1300 Introduction to Aviation
  - AVS 1301 Air Navigation
  - AVS 1313 Introduction to Meteorology
  - AVS 1302 Private Pilot Ground
  - AVS 3310 Aviation Law
  - AVS 3311 Aircraft Accident Investigation and Prevention
  - AVS 4310 Aviation Management

- Elective Courses - 9 hrs (Choose 3 courses)
  - AVS 3315 Advanced Aviation Meteorology
  - AVS 3320 Flight Crew Career Development
  - AVS 3350 Introduction to Space Weather
  - AVS 3370 Aviation Leadership
  - AVS 4305 Special Topics in Aviation
  - AVS 4314 Advanced Aircraft Systems
  - AVS 4315 Aerodynamics
  - AVS 4375 Crew Resource Management
MINOR IN AVIATION SCIENCES

The Aviation Sciences Minor requires 18 credit hours of the following:

The nine credit hours of required Aviation Science core courses:

AVS 1300 – Introduction to Aviation
A survey of aviation with special attention to the history and impact of aviation on society as well as its technological progress.

AVS 3311 – Aircraft Accident Investigation and Prevention
A comprehensive overview of the procedures and methods used and the skills required to investigate an aircraft accident with emphasis placed on accident prevention.

AVS 4310 - Aviation Management
Application of management concepts to the problems involved in airport operations, national air traffic control and air transportation systems.

The remaining nine credit hours of Aviation Science advanced elective courses are chosen from the following topics (Choose 3 courses)

AVS 1313 – Introduction to Meteorology
AVS 3310 – Aviation Law
AVS 3315 – Advanced Aviation Meteorology
AVS 3320 – Flight Crew Career Development
AVS 3350 – Introduction to Space Weather
AVS 3370 – Aviation Leadership
AVS 4305 – Special Topics in Aviation
AVS 4314 – Advanced Aircraft Systems
AVS 4315 – Aerodynamics
AVS 4375 – Crew Resource Management
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 1301 Air Navigation
   - AVS 1302 Private Pilot Ground
   - AVS 1313 Introduction to Meteorology
   - AVS 1331 Private Pilot Flight
   - AVS 2333 Commercial Pilot I
   - AVS 3235 Multi-Engine Flight
   - AVS 3236 CFI-A Flight
   - AVS 3305 CFI-A Ground
   - AVS 3310 Aviation Law
   - AVS 3311 Aircraft Accident Investigation
   - AVS 3312 Aviation Safety
   - AVS 3315 Advanced Aviation Meteorology
   - AVS 3320 Flight Crew Career Development
   - AVS 3330 Air Navigation
   - AVS 3337 Commercial Pilot Ground School
   - AVS 3370 Aviation Leadership
   - AVS 4237 CFI-I FLIGHT
   - AVS 4238 Multi-Engine Instructor Flight
   - AVS 4306 Instructor – Instrument Ground
   - AVS 4310 Aviation Management
   - AVS 4314 Advanced Aircraft Systems
   - AVS 4315 Aerodynamics
   - AVS 4317 Aerospace Propulsion Systems
   - AVS 4318 Avionics System Design
   - AVS 4375 Crew Resource Management
   - 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).
Envoy and Baylor have collaborated in order to facilitate a steady supply of airline qualified pilots through specific recruitment, screening, selection, training, and placement strategies for pilots to be employed by Envoy in the Pilot Pipeline Program. Additionally, American Airlines has agreed to grant all pilots hired by Envoy eligibility to “Flow-Through” to American Airlines as a pilot without requirement of an interview, but is subject to the arrangement between Envoy and American.

Baylor students who meet the qualifications for Envoy employment and choose to enter the Pilot Pipeline Program as “Pipeline Students” may be provided one of two conditional offers.

**Pipeline Instructor** – The pipeline student will interview at a flight school affiliated with Envoy’s Pipeline Instructor Program. The student must meet and maintain the flight school’s minimum requirements as a CFI and provide CFI services outlined in the agreement between the flight school and Envoy. Once employed as a CFI, they will also enter into an employment agreement with Envoy and be eligible for health benefits and travel privileges while they are accruing the Federal Aviation Administration’s required number of flight hours for commercial passenger airline pilots.

**Deferred Pilot Offer** – If the pipeline student prefers not to become a pipeline instructor, they may be offered a conditional letter of employment as a First Officer at Envoy and earn the required number of flight hours elsewhere.

Once students become eligible and continue to meet Envoy’s hiring criteria, they will enter into Envoy’s First Officer training program (providing Envoy is hiring at the time) by signing a two year commitment and will receive a $10,000 signing bonus.

**Pipeline Student Requirements** –
- Have completed or be enrolled in Baylor’s Aviation Science Program at the time of application and Baylor graduates may not have previously applied to Envoy
- Be at least a sophomore with a private pilot’s license and instrument rating, a cumulative GPA of 2.5 and a 3.0 in aviation courses
- Sign a release authorizing Envoy to review academic, aeronautical, and other Baylor and FAA records
- Be competitive and meet the same standards of others applying and interviewing for pilot positions
- Complete Envoy Human Resources interview at registration
- Perform Envoy’s technical review and simulator evaluation upon completion of commercial, instrument, multi-engine licenses and ratings through Baylor and/or its affiliates
- Complete the Baylor Aviation Science degree including CFI certificate at Baylor, and preferably earn a certified flight instrument instructor (CFII) certificate and multi-engine instructor (MEI) certificate upon becoming a CFI
- Be a United States citizen or possess the legal right to work in the U.S., including the right to travel to/from the cities Envoy serves

**Pipeline Instructor Conditional Offer Qualifications** –
- Be eligible for employment by flight schools
- Maintain an excellent work ethic and receive a letter of recommendation from the Chief Pilot
- Pass drug and background checks deemed necessary by Envoy
- Continue to be competitive and meet the same standards of others applying and interviewing for pilot positions

**First Officer Training Program Requirements** –
- Hold a First Class Medical Certificate
- Pass any drug and background checks required by the FAA, Department of Transportation, Department of Homeland Security, Envoy, or other governmental entity
- Acquire minimum number of flight hours required for First Officers
- Complete FAA Part 121 ATP written test
Mesa Airlines and Baylor University Pilot Pipeline Program

Mesa Airlines and Baylor University have collaborated in order to facilitate a steady supply of airline qualified pilots through specific recruitment, screening, selection, training, and placement strategies for pilots to be employed by Mesa in the Pilot Pipeline Program. All candidates selected for, and participating in training with the intent of taking advantage of this program, are of the highest quality and consistently demonstrate the work ethic, flying skill, aviation knowledge, professional attitude and demeanor, and personal qualifications to perform as a successful crew member for Mesa.

For a pilot to be qualified under this program, he or she must meet the following required qualifications:

- Be enrolled in or be a graduate of the University Aviation Sciences degree program with a minimum cumulative GPA of 2.5
- Hold an FAA Commercial Pilot Certificate with Airplane Multiengine Land and Instrument Airplane ratings
- Hold a First Class Medical Certificate from the time of program selection with Mesa
- Maintain an excellent work ethic and obtain letter of recommendation from University’s Aviation Department
- Sign release forms authorizing Mesa to review the pilot’s academic, flight training, and other University and FAA records
- Be competitive with and meet the same standards of employment and interview requirements of other candidates applying for pilot positions with Mesa
- Pass background checks and meet hiring policies required by the Federal Aviation Administration, Department of Transportation, Department of Homeland Security, Mesa and any other governmental departments, administrations, or agencies.

For complete details about the Mesa Pipeline Program, please refer to the Mesa Airlines and Baylor University Agreement available in the Baylor Institute for Air Science office. If you wish to apply, please notify us of your intentions to get the process started.