

CHARLESTON SOUTHERN UNIVERSITY



YOUR **PURPOSE.**
OUR **MISSION.**



VERSION 6.0 20220614



WELCOME TO CSU AERONAUTICS!



Mission



Provide CSU students a professional, leading-edge collegiate aviation program built upon a foundation of safety, focused on professional pilot training, advanced technologies and instructional methods, and dedicated to preparing diverse students of character with a Christian world view for success in a fulfilling and rewarding career.

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Vision



Reach diverse students aspiring to professional aviation careers through local, state and national aviation, STEM and Christian networks, and partner with industry to educate, empower and inspire them through innovative, collaborative instruction, professional mentoring and spiritual development.



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Core Values



We will strive to live up to our moto, "Semper Altius" - Ever Higher - through our core values:

"RAISE"

*R*espect

*A*ccountability

*I*ntegrity

*S*ervice

*E*xcellence

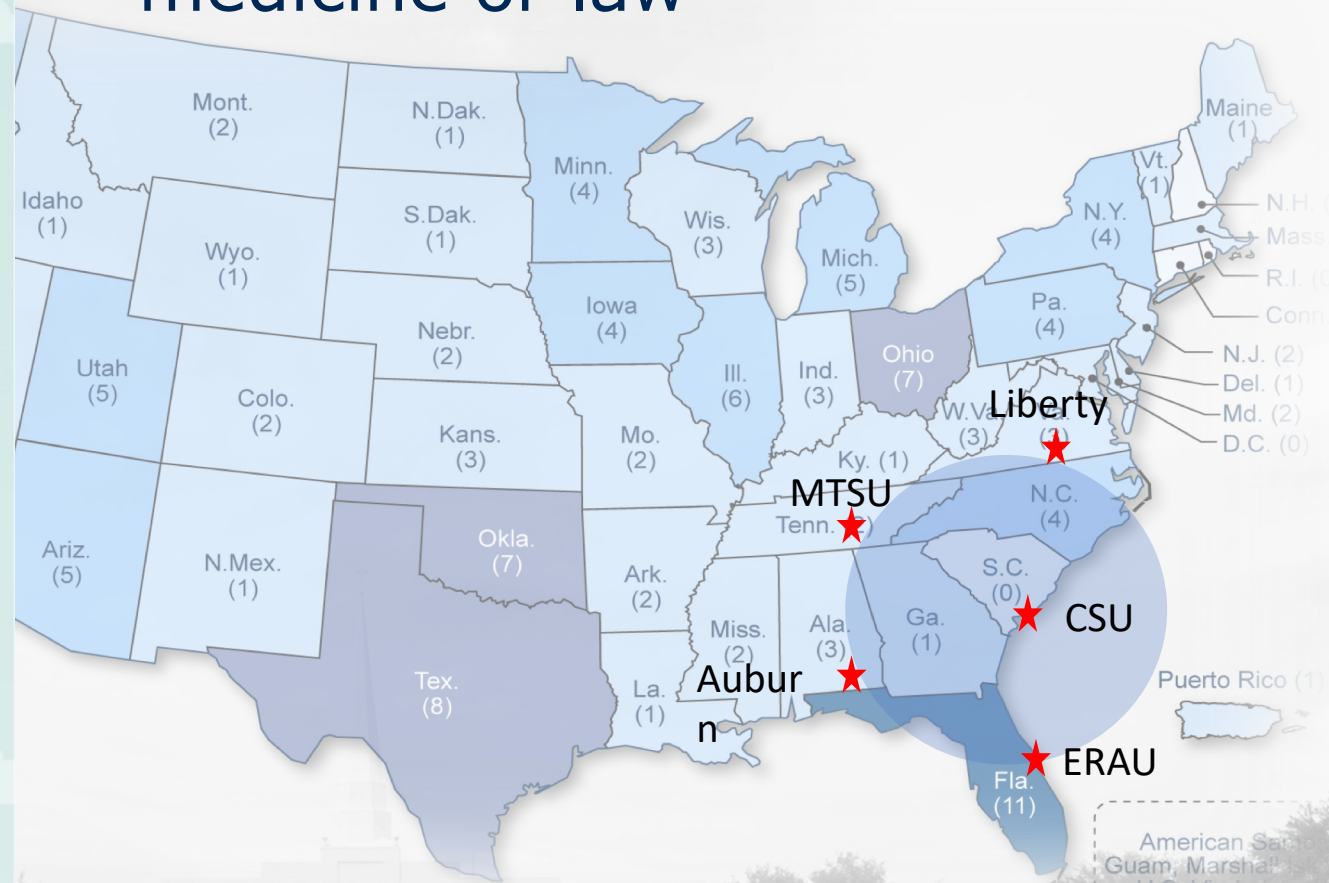
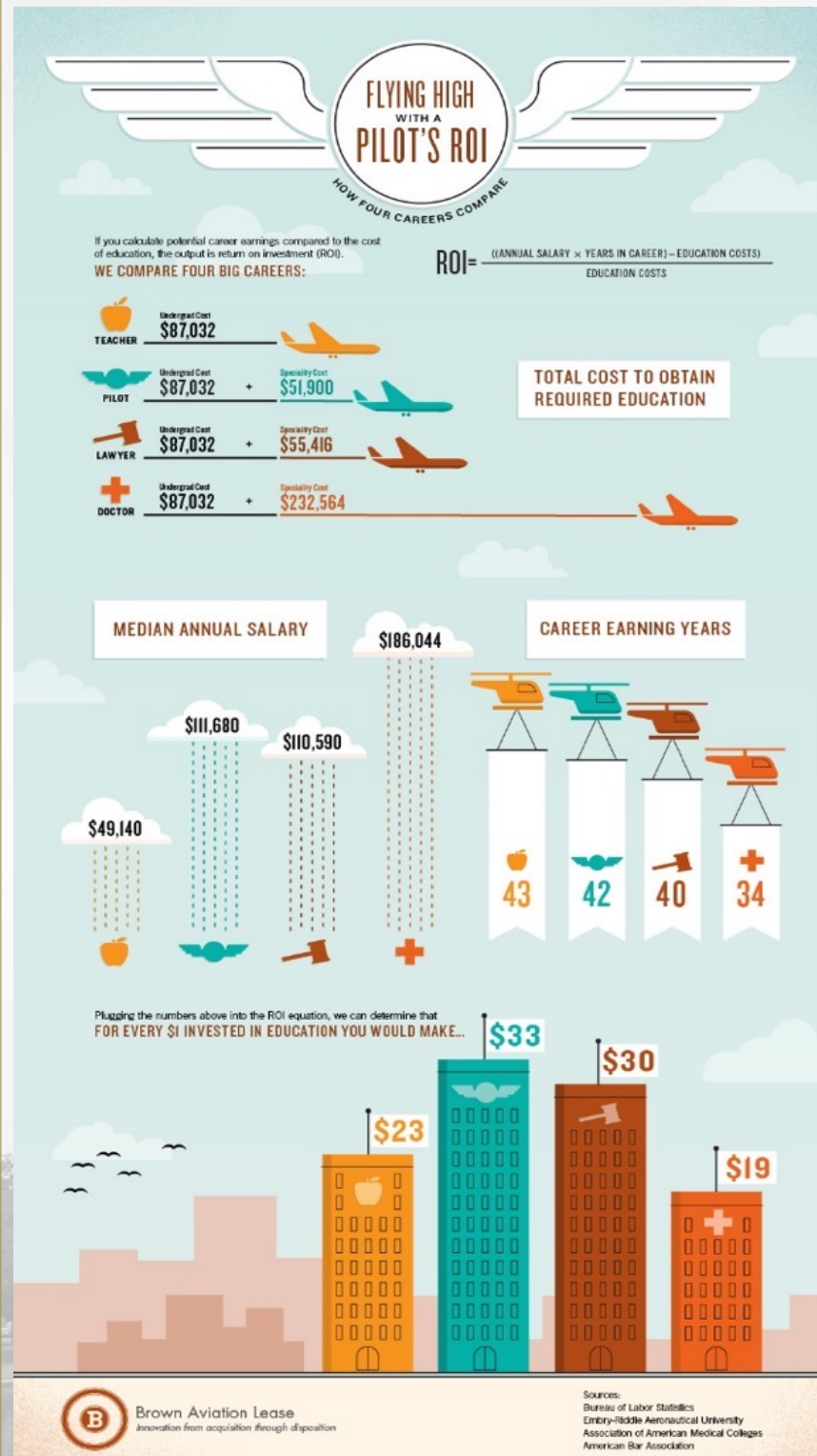
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Opportunity



- U.S. GAO: Return on Investment (ROI) for aviation higher per-dollar than medicine or law



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Professional Pilot Program Overview



Bachelor of Science in Aeronautics – Professional Pilot

- 3 Tracks: Commercial, Military and Missionary Pilot
- Includes Private, Instrument, Commercial, Multi-Engine, CFI ratings
- All Tracks qualify for reduced hours for Restricted ATP (1000 Hrs)*
 - 1500 Hours normally required for ATP

All Ground School and Academic Courses taught at CSU Campus

- FAA Part 141 Ground Certified

Flight & Sim Training Curriculum Administered by CRAFT Flight Training and Simulation

- FAA Part 141 Certified
- DA-20, DA-40 and DA-42
- Redbird AATD & BATD



**R-ATP Certification Pending*

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Professional Pilot Commercial Track



Year 1 – Fall AERN 160 – Private Pilot Cert (3) AERN 161L – Private Pilot Lab I (2) CHST 111 (3) MATH 110 or 111 (3-4) ENGL 111 (3) GNED 101 (1) Credits 15-16	Year 1 – Spring AERN 162L – Private Pilot Lab II (2) AERN 170 – Flight Safety (3) AERN 190 – Av Career Planning (1) CHST 112 (3) MATH 130 (4) ENGL 112 (3) Credits 16
Year 2 – Fall AERN 260 – Instrument Rating (3) AERN 261L – Instrument Rating Lab (2) AERN 290 – Flight Simulation (1) CSCI 210 (3) COMM 110 (3) Core (3) – English Literature Credits 15	Year 2 – Spring AERN 240 – Aviation Weather (4)* AERN 270 – Commercial Cert (3) AERN 271L – Commercial Lab I (2) AERN 230 – Crew Resource Mgmt (3) Core (3) – History *AERN 240 satisfies 4 credit-hours of LAC for Natural Science Credits 15
Year 3 – Fall AERN 330 – Aerodynamics (3) AERN 340 – Advanced Aircraft Sys (3) AERN 372L – Commercial Lab II (2) Core (4) – Natural Science Core (4) – Foreign Language Credits 16	Year 3 – Spring AERN 373L – Commercial Lab III (2) AERN 350 – Global Navigation (3) AERN 360 – Unmanned Aerial Sys (1) AERN 361L – UAS Lab (1) AERN 390 – Aviation Regulation (3) Core (3) – Social & Behavioral Science General Elective (3) Credits 16
Year 4 – Fall AERN 460 – Multi-Engine Rating (2) AERN 461L – Multi-Engine Lab (2) AERN 440 – Safety Management Sys (3) Core (3) – Fine Arts Core (3) – CHST 140 or POLI 201 General Elective (3) Credits 16	Year 4 – Spring AERN 470 – Aviation Law (3) AERN 490 – Certified Flt Inst (3) AERN 491L – Certified Flt Inst Lab (2) AERN 495 – Pro Pilot Capstone (1) General Elective (3) General Elective (3) General Elective (1) Credits 16

- Total Credits: 125
- LAC Credits (Core): 47-48
 - (MATH 110 or 111)
- AERN Core: 55
- Track Core: 7
- Electives: 15
- Required AERN Credits for Commercial Track: 62

* 60 hours of aviation curriculum required for FAA R-ATP certification

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Professional Pilot Flight Fees - Fall 2022



Private Pilot Lab I AERN 161L	Hours	Cost	\$6,767.00
Total Flight	21		
Dual Flight	19		
Solo Flight	2		
Simulator (Dual)	4		
Ground Instruction	17		

Private Pilot Lab II AERN 162L	Hours	Cost	\$6,257.00
Total Flight	20		
Dual Flight	17		
Solo Flight	3		
Simulator (Dual)	2		
Ground Instruction	17		

Total Private Pilot Cost: \$13,024.00

Instrument Rating Lab AERN 261L	Hours	Cost	\$11,891.00
Total Flight	26		
Dual Flight	26		
Solo Flight	0		
Simulator (Dual)	14		
Ground Instruction	35		

Commercial Lab I AERN 271L	Hours	Cost	\$9,394.00
Total Flight	41.5		
Dual Flight	18		
Solo Flight	23.5		
Simulator (Dual)	0		
Ground Instruction	13.5		

Commercial Lab II AERN 372L	Hours	Cost	\$9,347.00
Total Flight	29.5		
Dual Flight	20		
Solo Flight	9.5		
Simulator (Dual)	11		
Ground Instruction	14		

Commercial Lab III AERN 373L	Hours	Cost	\$8,569.00
Total Flight	38		
Dual Flight	9		
Solo Flight	29		
Simulator (Dual)	0		
Ground Instruction	26.5		

Total Commercial Pilot Cost: \$27,310.00

TOTAL COMMERCIAL TRACK COST:	\$67,817.00
TOTAL MILITARY TRACK COST:	\$66,220.00
TOTAL MISSIONARY TRACK COST:	\$66,220.00

Multi-Engine Lab AERN 461L	Hours	Cost	\$8,284.00
Total Flight	13		
Dual Flight	13		
Solo Flight	0		
Simulator (Dual)	5		
Ground Instruction	6.5		

Flight Instructor Lab AERN 491L	Hours	Cost	\$7,308.00
Total Flight	20		
Dual Flight	20		
Solo Flight	0		
Simulator (Dual)	5		
Ground Instruction	12.5		

Missionary or Military Lab AERN 421L or AERN 451L	Hours	Cost	\$6,687.00
Total Flight	20		
Dual Flight	20		
Solo Flight	0		
Simulator (Dual)	0		
Ground Instruction	26		

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Track Core Curriculum



- All tracks require: Private, Instrument, Commercial & CFI
- **Commercial Track**
 - Global Navigation Course
 - FAA Multi-Engine Rating Class & Lab
- **Military Track**
 - Space Operations Course
 - Military Aviation Intro Class & Lab
- **Missionary Track**
 - Aviation Maintenance Management
 - Missionary Aviation Intro Class & Lab



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Professional Pilot Flight Curriculum



Professional Pilot Core (55 hours)

- AERN 160 - Private Pilot Certification (3 hours)
- AERN 161L - Private Pilot Lab I (2 hours)
- AERN 162L - Private Pilot Lab II (2 hours)
- AERN 170 - Flight Safety (3 hours)
- AERN 190 - Aviation Career Planning (1 hours)
- AERN 230 - Crew Resource Management (3 hours)
- AERN 240 - Aviation Weather (4 hours)
- AERN 260 - Instrument Pilot Rating (3 hours)
- AERN 261L - Instrument Rating Lab (2 hours)
- AERN 270 - Commercial Pilot Certification (3 hours)
- AERN 271L - Commercial Pilot Lab I (2 hours)
- AERN 330 - Aerodynamics for Pilots (3 hours)
- AERN 340 - Advanced Aircraft Systems (3 hours)
- AERN 360 - Unmanned Aerial Systems (1 hours)
- AERN 361L - Unmanned Aerial Systems Lab (1 hours)
- AERN 372L - Commercial Pilot Lab II (2 hours)
- AERN 373L - Commercial Pilot Lab III (2 hours)
- AERN 390 - Aviation Regulation (3 hours)
- AERN 440 - Safety Management Systems (3 hours)
- AERN 470 - Aviation Law (3 hours)
- AERN 490 - Certified Flight Instructor (3 hours)
- AERN 491L - Certified Flight Instructor Lab (2 hours)
- AERN 495 - Professional Pilot Capstone (1 hours)

Must choose one track (7 hours)

Commercial Track Requirements (7 hours)

- AERN 350 - Global Navigation (3 hours)
- AERN 460 - Multi-Engine Rating (2 hours)
- AERN 461L - Multi-Engine Rating Lab (2 hours)

Military Track Requirements (7 hours)

- AERN 385 - Space Operations (3 hours)
- AERN 450 - Military Aviation (2 hours)
- AERN 451L - Military Aviation Lab (2 hours)

Missionary Track Requirements (7 hours)

- AERN 383 - Aviation Maintenance Mgmt (3 hours)
- AERN 420 - Missionary Aviation (2 hours)
- AERN 421L - Missionary Aviation Lab (2 hours)

Restricted Airline Transport Pilot (R-ATP) certification
Students must earn 60 credit-hours or more
of Aeronautics course work to qualify for the FAA
Restricted Airline Transport Pilot (R-ATP) certification.

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Aeronautics Minor



- **14 credit-hour requirement, minimum**
- **Required Courses (credit hours in parenthesis):**
 - AERN 150 (1) – Introduction to Aviation
 - AERN 170 (3) – Flight Safety
 - AERN 390 (3) – Aviation Regulation
 - AERN 440 (3) – Safety Management Systems
- **Additional Courses (at least 4 credit hours from the following):**
 - AERN 160 (3), 161L* (2), 162L** (2) – Private Pilot License
 - AERN 240 (4) – Aviation Weather
 - AERN 260 (3), 261L* (2) – Instrument Rating
 - AERN 330 (3) – Aerodynamics
 - AERN 340 (3) – Advanced Aircraft Systems

*These courses are flight training labs, requiring 2-3 flights per week and substantial lab fees

** Private Pilot License Labs (AERN 161 and 162) must be taken in consecutive semesters

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Additional Aeronautics Programs



- **Aerospace Management**

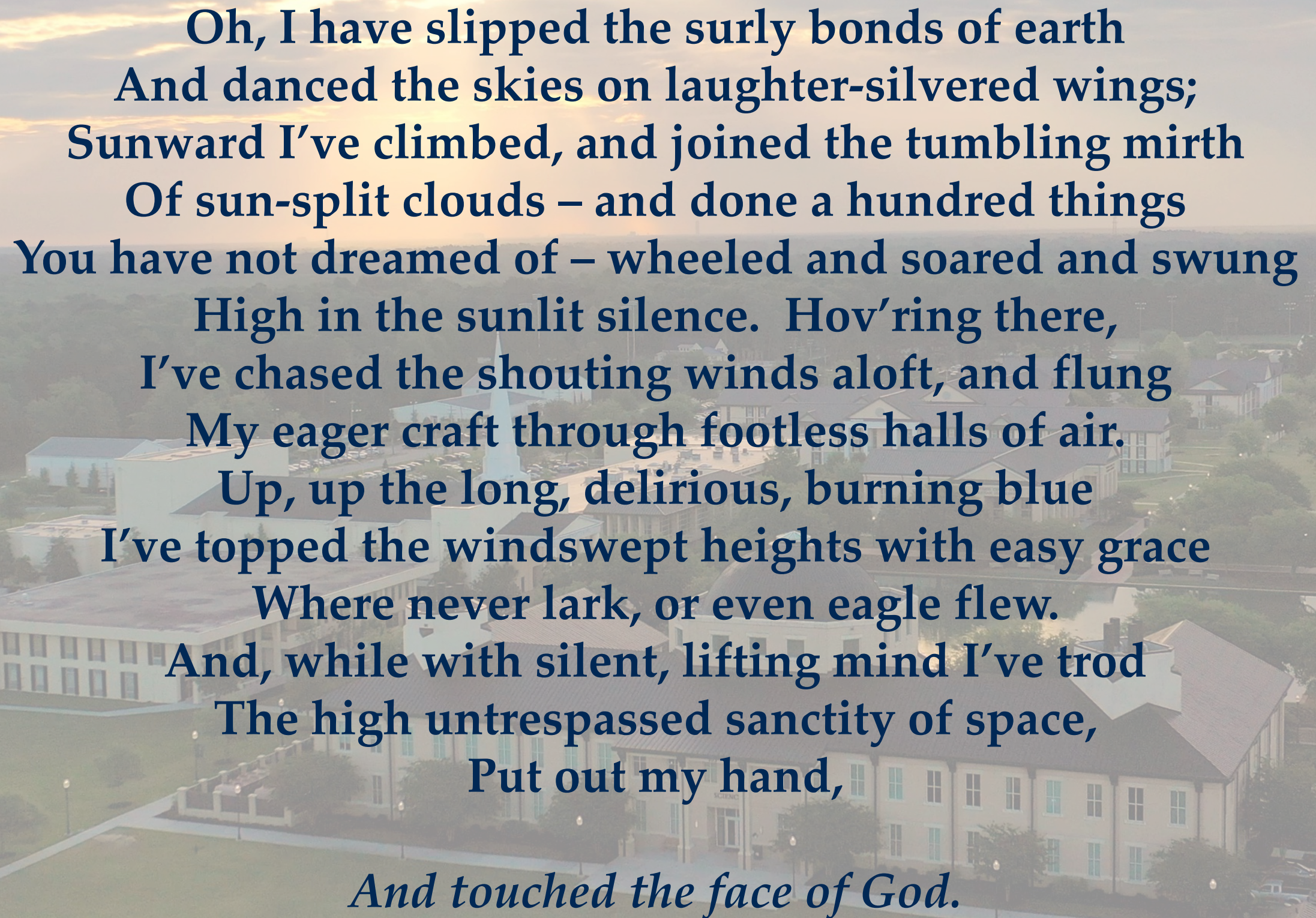
- B.S. in Aeronautics
- Offered in partnership with CSU's award-winning School of Business
- Taught by leaders in commercial and military aerospace management
- Companion to Professional Pilot degree program; first-year curriculum is the same for both programs

- **Aviation Maintenance Management**

- Bachelor of Technology
- Maximizes transfer credits from technical / community college aviation maintenance programs (students with FAA A&P Certification)
- In partnership with Trident Tech, Greenville Tech and Georgetown-Horry Tech colleges (out-of-state colleges may also qualify)
- Requires an additional 4-6 semesters of study, depending upon student credit hour load

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An aerial photograph of a university campus during sunset. The sky is filled with soft, golden clouds. In the foreground, there are several large, multi-story buildings with light-colored facades and dark roofs. A prominent building with a tall, thin tower is visible in the center. The campus is surrounded by green lawns and trees. The overall atmosphere is peaceful and serene.

Oh, I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings;
Sunward I've climbed, and joined the tumbling mirth
Of sun-split clouds – and done a hundred things
You have not dreamed of – wheeled and soared and swung
High in the sunlit silence. Hov'ring there,
I've chased the shouting winds aloft, and flung
My eager craft through footless halls of air.
Up, up the long, delirious, burning blue
I've topped the windswept heights with easy grace
Where never lark, or even eagle flew.
And, while with silent, lifting mind I've trod
The high untrespassed sanctity of space,
Put out my hand,
And touched the face of God.