

Doug Smith

VERMONT TECH

Aviation: Professional Pilot Technology

Graduates of this program are prepared for a variety of career opportunities in aviation. Students attain necessary flight credentials for cockpit positions including flight education, corporate flying, charter operations, and commuter airline jobs, as well as ultimate positions with main domestic and international air carriers. In addition, students may also qualify for employment in many other aviation industry positions such as managers, dispatchers, simulator trainers, and marketers for aviation or related companies.

The Professional Pilot Technology program provides flight training courses in cooperation with Vermont Flight Academy at the nearby Burlington International Airport. Offered FAA certificates and ratings include: Private, Instrument, Commercial (Single-Engine Land & Sea), Multi-Engine (Land & Sea), and Certified Flight Instructor (Airplane, Instrument, & Multi-Engine). The course work combines both basic and advanced airmanship skills to provide safe operations in all types of flying.

The Bachelor of Science in Aviation: Professional Pilot Technology program will:

- Provide graduates with the academic and professional tools needed to achieve success in the constantly changing aviation industry
- Provide knowledge of contemporary world-wide aviation industry issues
- Provide specific flying skills to attain FAA certificates and ratings that allow for success in all segments of the international aviation industry
- Enhance critical thinking and decision-making skills necessary for safe and effective flying
- Provide professional preparation and a zeal for lifelong learning, with a focus on the development of professional skills enhanced by the technology of aviation and integrated safety practices

Students with a Bachelor of Science in Aviation: Professional Pilot Technology will:

- Demonstrate the theoretical knowledge necessary to attain FAA certificates and ratings in Private, Instrument, Commercial, Flight Instructor, and Multi-Engine
- Demonstrate flight skills and knowledge necessary for attainment of all FAA certificates and ratings offered in the program
- Understand and interpret meteorological data to ensure safe and efficient flight operations
- Operate as a crew member in an aircraft cockpit and function effectively as part of a multi-disciplinary team
- Understand the technological, political, and historical developments constituting the evolution of modern aviation
- Apply aerodynamic, mathematical, and scientific principles to ensure safe and efficient flight operations
- Accurately analyze and interpret data from a variety of sources in all facets of aviation and all types of flying
- Communicate with peers, instructors, superiors, subordinates, and government agencies with precision and clarity

The minimum number of credits required for the bachelor's degree is 121.

Professional Pilot Technology (BS)

First Year

Fall					Spring								
Course	Title	Cr	Lec	Lab	Pra	WL	Course	Title	Cr	Lec	Lab	Pra	WL
AER 1005	Introduction to Aviation	3	3	0	0	3.00	AER 1032	Aviation Meteorology II	4	3	2	0	4.34
AER 1010	Private Pilot: Ground	3	3	0	0	3.00	AER 1110	Pilot Instrumentation Rating: Ground	3	3	0	0	3.00
AER 1020	Private Pilot: Flight	2	0	0	6	4.02	AER 1120	Pilot Instrumentation Rating: Flight	2	0	0	6	4.02
AER 1031	Aviation Meteorology I	3	3	0	0	3.00	INT 1005	Self, Career, & Culture	3	3	0	0	3.00
ENG 10XX	English	3	3	0	0	3.00	MAT 1311	Precalculus I	3	3	0	0	3.00
						14							15
						16.02							17.36

Second Year

Fall					Spring								
Course	Title	Cr	Lec	Lab	Pra	WL	Course	Title	Cr	Lec	Lab	Pra	WL
AER 2010	Commercial Pilot: Ground	3	3	0	0	3.00	AER 2032	Commercial Pilot: Flight Phase II	2	0	0	6	4.02
AER 2031	Commercial Pilot: Flight	2	0	0	6	4.02	AER 2330	Aviation Physiology & Psychology	3	3	0	0	3.00
AER 2110	Aviation Safety & Accident Investigation	3	3	0	0	3.00	BUS 2020	Principles of Management	3	2	2	0	3.34
AER 2130	Aviation History	3	3	0	0	3.00	CIS 1080	Spreadsheets & Databases	2	0	2	0	1.34
AER 2610	Aviation Project I	2	2	0	0	2.00	ELE XXXX	AH/SS elective	3	3	0	0	3.00
PHY 1041	Physics	4	3	3	0	5.01	ENG 2080	Technical Communication	3	3	0	0	3.00
						17							16
						20.03							17.70

Third Year

Fall					Spring								
Course	Title	Cr	Lec	Lab	Pra	WL	Course	Title	Cr	Lec	Lab	Pra	WL
AER 3010	Certified Flight Instructor: Ground	6	6	0	0	6.00	AER 3110	Aviation Law	3	3	0	0	3.00
AER 3020	Flight Instructor: Flight	2	0	0	6	4.02	BUS 3250	Organizational Behavior & Management	3	3	0	0	3.00
AER 3030	Human Factors, Risk Management, & CRM	3	3	0	0	3.00	ELE XXXX	Upper level AH/SS elective	3	3	0	0	3.00
AER 3040	Aircraft Maintenance for Pilots	3	2	1	0	2.67	MAT 2021	Statistics	3	3	0	0	3.00
BUS 3080	Airline Operations & Management	3	3	0	0	3.00	Select 3 or more credits:						
						17	AER 2802	Aviation Fieldwork/Internship	3	0	0	0	0.00
						18.69	AER 4010	Multi-Engine Land Ground/Flight	0.5	0	0	3	2.01
							AER 4011	Multi-Engine Sea Ground/Flight	0.5	0	0	3	2.01
							AER 4020	CFI: Instrument Ground/Flight	1	0	0	3	2.01
							AER 4030	CFI: Multi-Engine Ground/Flight	1	1	0	3	3.01
							ELE XXXX	AH/SS elective	3	3	0	0	3.00
							NOTE	Above selections can also be taken SENIOR year	15				24.04

Fourth Year

Fall					Spring								
Course	Title	Cr	Lec	Lab	Pra	WL	Course	Title	Cr	Lec	Lab	Pra	WL
AER 4040	Corporate Flying & Business Aviation	3	3	0	0	3.00	AER 4050	Training and Flying Advanced Airplanes	3	3	0	0	3.00
AER 4060	Unmanned Aerial Systems (Drones)	3	3	0	0	3.00	AER 4110	Advanced Transport Category Aircraft Systems	3	3	0	0	3.00
AER 4610	Aviation Senior Project II	3	3	0	0	3.00	AER 4130	High Altitude Navigation & International Flight Operations	3	3	0	0	3.00
ELE XXXX	AH/SS elective	3	3	0	0	3.00	ELE XXXX	AH/SS elective	3	3	0	0	3.00
ELE XXXX	AH/SS elective	3	3	0	0	3.00							12
						15							12.00

121 Credits to Graduate

Doug Smith, Aviation Program Director
 (802) 324-5464 (CELL)
dsmith4@vtc.vsc.edu

FLIGHT FEES for Aviation: Professional Pilot Technology

FAA 141 "Approved School" Hours & Fees for ALL Certificates & Ratings

Following flight courses REQUIRED for the BS Degree:

<u>Courses</u>	<u>Flight Training</u>	<u>Fees</u>	<u>Flt Hrs (1)</u>	<u>Credits</u>
AER 1020	Private	\$11,990	55	2
AER 1120	Instrument	\$12,046	52	2
AER 2031	Commercial I	\$19,323	85	2
AER 2032	Commercial II	\$7,200	35	2
AER 3020	CFI-Airplane	\$6,293	25	2

Courses that are "ELECTIVES" (See 2 & 3 below)

AER 4020	CFI-Instrument	\$4,503	15	1
AER 4010	Multiengine-Land	\$5,195	10	1/2
AER 4011	Multiengine- Sea	\$4,863	7.5	1/2
AER 4030	CFI-Multi-engine	\$11,127	25	1

Effective: January 1, 2016

Notes: (1) All required courses for BS degree must use full flight hours
(2) Any extra/optional courses always commence as 141 with an enrollment certificate, however, if sufficient training is received to complete the FAA check-ride with less hours, they can be dropped as a 141 student and receive an FAA Part 61 check-ride to complete. Anytime this occurs, excess funding must be returned to the VA or the student's account, after financial scrutiny of less hours training.
(3) Students choosing to not take any of the extra/optional courses may require another 3 credit hours for 120 credit hours minimum to graduate.

AVIATION (AER) Courses
By year in curriculum with Titles and credits
Revised June 2016

FRESHMAN Year	Course name	Credits	
(1)	AER 1005	Intro to Aviation Careers	3
(2)	AER 1010	Private Pilot – Ground	3
(3)	AER 1020	Private Pilot – Flight	2
(4)	AER 1031	Aviation Meteorology I	3
(5)	AER 1032	Aviation Meteorology II	4
(6)	AER 1110	Instrument Rating – Ground	3
(7)	AER 1120	Instrument Rating – Flight	2
			20 AER credits
<u>SOPHOMORE Year</u>			
(8)	AER 2010	Commercial Pilot – Ground	3
(9)	AER 2031	Commercial Pilot – Flight I	2
(10)	AER 2032	Commercial Pilot – Flight II	2
(11)	AER 2110	Aviation Safety & Accident Investigation	3
(12)	AER 2130	Aviation History	3
(13)	AER 2330	Aviation Physiology & Psychology	3
(14)	AER 2610	Aviation Project I	2
			18 AER credits
<u>JUNIOR Year</u>			
(15)	AER 3010	Certified Flight Instructor – Ground	6
(16)	AER 3020	Certified Flight Instructor – Flight	2
(17)	AER 3030	Human Factors, Risk Mgmt, CRM/SRM	3
(18)	AER 3040	Aircraft Maintenance for Pilots	3
(19)	AER 3110	Aviation Law	3
(20)	AER 4010	Multi-Engine Land - Ground/Flight	½
(21)	AER 4011	Multi-Engine Sea - Ground/Flight	½
(22)	AER 4030	CFI: Multi-Engine Ground/Flight	1
(23)	BUS 3080	Airline Operations and Management (BUS)-	3
(24)	AER 2801	Aviation Fieldwork/Internship	1-3
			23-25 AER credits
<u>SENIOR Year</u>			
(25)	AER 4020	Instrument Flight Instructor – Ground/Flight	1
(26)	AER 4040	Corporate Flying and Business Aviation	3
(27)	AER 4050	Training & Flying Advanced Airplanes	3
(28)	AER 4060	Intro Unmanned Ariel Vehicles	3
(29)	AER 4110	Advanced Transport Category Systems	3
(30)	AER 4130	High Altitude Nav & Int'l Flight Ops	3
(31)	AER 4610	Aviation Project II	3
			19 AER credits

- **31 AER courses in BS Degree over 4 years**
- **80-82 Total Credit Hrs of “Aviation” courses BS Degree; Requires 121 Credits to graduate**

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AER 1020	Private Pilot: Flight	2	0	0	6	4.02	AER 1120	Pilot Instrumentation Rating: Flight	2	0	0	6	4.02
AER 1031	Aviation Meteorology I	3	3	0	0	3.00	INT 1005	Self, Career, & Culture	3	3	0	0	3.00
ENG 10XX	English	3	3	0	0	3.00	MAT 1311	Precalculus I	3	3	0	0	3.00
14						16.02	15						17.36

Second Year

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AER 2110	Aviation Safety & Accident Investigation	3	3	0	0	3.00	BUS 2020	Principles of Management	3	2	2	0	3.34
AER 2130	Aviation History	3	3	0	0	3.00	CIS 1080	Spreadsheets & Databases	2	0	2	0	1.34
AER 2610	Aviation Project I	2	2	0	0	2.00	ELE XXXX	AH/SS elective	3	3	0	0	3.00
PHY 1041	Physics	4	3	3	0	5.01	ENG 2080	Technical Communication	3	3	0	0	3.00
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17						18.69	AER 4020	CFI: Instrument Ground/Flight	1	0	0	3	2.01
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17						18.69	NOTE	Above selections can also be taken SENIOR year	15				24.04

Fourth Year

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AER 4060	Unmanned Aerial Systems (Drones)	3	3	0	0	3.00	AER 4110	Advanced Transport Category Aircraft Systems	3	3	0	0	3.00
AER 4610	Aviation Senior Project II	3	3	0	0	3.00	AER 4130	High Altitude Navigation & International Flight Operations	3	3	0	0	3.00
ELE XXXX	AH/SS elective	3	3	0	0	3.00	ELE XXXX	AH/SS elective	3	3	0	0	3.00
ELE XXXX	AH/SS elective	3	3	0	0	3.00							
15						15.00	12						12.00

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