



Aviation & Aerospace Science B.S. - Professional Flight Officer Concentration

Minor (not required)

Fall 2023 Catalog Year

First Year		
Fall: 16 Credits	AES 1100 (4) Aviation Fundamentals	
	AES 1400 (3) Aviation Weather	
	AES 1500 (2) Private Pilot Flight Lab	
	Written Communication (3)	
	Quantitative Literacy (4) Algebra-based math course	
Spring: 15 Credits	AES 1710 (3) Instrument Flight Sim I	
	Written Communication (3)	
	Oral Communication (3)	
	Natural & Physical Science (3)	
	Arts & Humanities (3)	
Second Year		
Fall: 15 Credits	AES 2120 (4) Instrument Fundamentals	
	AES 2500 (2) Instrument Pilot Flight Lab	
	AES 1040 (3) Intro to Unmanned Aircraft Systems OR	
	AES 2050 (3) Aviation & Aerospace History and Dev	
	AES 2710 (3) Instrument Flight Simulation II	
	Natural & Physical Science (3)	
Spring: 15 Credits	AES 2130 (3) Commercial Flight Operations	
	AES 3520 (2) Commercial Single-Engine Flight Lab	
	AES 3650 (3) Advanced Flight Technologies	
	AES 2200 (4) Fundamentals of Air Traffic Control	
	Social & Behavioral Science (3) ESSJ or GD recommended	

Third Year		
Fall: 15 Credits	AES 2220 (3) Flight Dispatch & Load Planning	
	AES 3530 (3) Aerodynamics	
	AES 3710 (3) Multi-Engine Flight Simulation I	
	Historical (3) ESSJ or GD recommended	
	Social & Behavioral Science (3)	
Spring: 15 Credits	AES 3000 (3) Aircraft Systems and Propulsion	
	AES 3880 (3) Aviation Security	
	AES 4040 (3) Aircraft Performance	
	AES 4370 (3) Advanced Navigation Systems	
	Arts & Humanities (3)	
Fourth Year		
Fall: 15 Credits	AES 4540 (3) FAA Instructor Certification - Ground	
	AES 4500 (2) Commercial Multi-Engine Flight Lab OR	
	AES 4510 (2) Flight Instructor Flight Lab	
	AES 4710 (4) Turboprop Flight Simulation OR	
	AES 4935 (4) Advanced Commercial Aircraft Systems	
	AES 3850 (3) Human Factors & Physiology of Flight	
Spring: 14 Credits	General Elective (3)	
	AES 4860 (3) Aviation Safety	
	AES 4930 (3) Professional Flight Standards Seminar	
	AES 4910 (3) Aviation & Aerospace Strategic Planning	
	General Elective (2)	

In addition to coursework, students must have the following FAA flight certificates in order to graduate: Private, Instrument, Commercial Single Engine, and *either* Certified Flight Instructor *or* Commercial Multi-Engine Add On *or* AGI and IGI

Transfer credit for pilot ground courses, flight labs, and simulator courses are only given for FAA certificates and ratings earned within 30 days of starting as an enrolled student at MSU Denver.