

**Metropolitan State University of Denver**  
**Aviation and Aerospace Science Major, B.S.: Aerospace Operations Concentration**  
**Minor (optional):**  
**Fall 2013 Catalog**

<b>First Year</b>	<b>Suggested Course plan</b>	<b>Prerequisites</b>	<b>Alternative Course Plan</b>
<b>Fall: 16 credit hours</b>	AES 1100 (6) Aviation Fundamentals (F, S)		
	AES 1710 (3) Single Engine Flight Sim. I (F,S)		
	ENG 1010 (3) Composing Arguments (F, S, Su)	Appropriate placement test score or prerequisite course	
	MTH 1110 (4) College Algebra <b>OR</b> MTH 1112 (4) College Algebra thru Modeling <b>OR</b> MTH 1310 (4) Finite Mathematics (F, S, Su)	Appropriate placement test score or prerequisite course	
<b>Spring: 15 credit hours</b>	AVS 1400 (3) Aviation Weather (F, S)		
	ENG 1020 (3) Freshman Composition: Rsrch, Anly, & Documt. (F, S, Su)	ENG 1010 or ENG 1009	
	PHY 1250 (6) Physics of Aviation (F, S)	MTH 1110, 1310, or equivalent	
	SPE 1010 (3) Public Speaking or SPE 1710 (3) Interpersonal Communication (F, S, Su)		

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<b>Second Year</b>	<b>Suggested Course plan</b>	<b>Prerequisite</b>	<b>Alternative Course Plan</b>
<b>Fall: 15 credit hours</b>	AES 2220 (3) Flight Dispatcher & Load Planning (F, S)	AES 1100, 1400, and MTH 1110	
	AST 1040 (3) Introduction to Astronomy (F, S, Su)		
	PHI 1030 (3) Introduction to Ethics (F, S, Su)		
	Historical (3) (F, S, Su) <b>Multicultural or Global Diversity recommended</b>		
	Social & Behavioral Science I (F, S, Su) <b>Multicultural or Global Diversity recommended</b>		
<b>Spring: 15 credit hours</b>	AES 1050 (3) Introduction to Space (F, S)		
	AES 3000 (3) Aircraft Systems and Propulsion (F, S)	AES 1100 or FAA Private Pilot certificate and PHY 1250 or Permission of Instructor	
	COM 2610 (3) Intro to Technical Writing <b>OR</b> MKT 2040 (3) Business Communication (F, S, Su)	ENG 1010 ENG 1010, 1020, SPE 1010 or 1710, and Quantitative Literacy	
	Social and Behavioral Science II (3) (F, S, Su)		
	Minor or Unrestricted Elective (3) (F, S, Su)		

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<b>Third Year</b>	<b>Suggested Course plan</b>	<b>Prerequisite</b>	<b>Alternative Course Plan</b>
<b>Fall: 15 credit hours</b>	AES 3600 (3) Space Flight Operations I <b>(F)</b>	At least Junior standing or Permission of Instructor	
	AES 3850 (3) Human Factors & Physiology of Flight <b>(F, S, Su)</b>	At least Junior standing	
	AES 3880 (3) Aviation Security <b>(F, S)</b>	At least Junior standing	
	AVS Elective (3) <b>(F, S)</b>		
	Minor or Unrestrictive Elective (3) <b>(F, S, Su)</b>		
<b>Spring: 15 credit hours</b>	AES 4370 (3) Advanced Navigation Systems <b>(F, S)</b>	AES 1100 & at least Junior standing	
	AES 4601 (3) Space Flight Operations II <b>(S)</b>	AES 3600	
	Arts and Humanities (3) <b>(F, S, Su)</b>		
	AES Elective (3) <b>(F, S)</b>		
	Minor or Unrestrictive Elective (3) <b>(F, S, Su)</b>		

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<b>Fourth Year</b>	<b>Suggested Course plan</b>	<b>Prerequisite</b>	<b>Alternative Course Plan</b>
<b>Fall: 15 credit hours</b>	AES 4200 (3) Airport Planning & Management I (F, S)	At least Junior standing or Permission of Instructor	
	AES 4603 (3) Aerospace Operations Systems Analysis & Design (F)	AES 4601	
	AES 4860 (3) Aviation Safety (F, S) -OR- AES 4870 (3) Aviation Safety Program Management (F)	Senior Standing  Completion of all required 3000-level AES courses and Senior Standing	
	Minor or Unrestricted Elective (3) (F, S, Su)		
	Minor or Unrestrictive Elective (3) (F, S, Su)		
<b>Spring: 15 credit hours</b>	AES 4602 (3) Aerospace Commercialized Operations (S)	AES 4601	
	AES 4607 (3) Orbital Mechanics & Aerospace Systems Simulations (S)	MTH 1110; AST 1040 or PHY 2010; or permission of instructor	
	AES 4910 (3) Aviation Management and Job Targeting (F, S)	Aerospace Management major & Senior standing or permission of instructor	

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<p>AES 4930 (3) Professional Flight Standards Seminar <b>OR</b></p> <p>AES 4210 (3) Airport Planning &amp; Management II <b>OR</b></p> <p>COM 4790 (3) Senior Seminar in Technical Communications (<b>F, S, Su</b>)</p>	<p>Senior standing; AES 3000, AES 4040, &amp; FAA Commercial Pilot Certificate with instrument rating</p> <p>Completion or concurrent enrollment in all AES core courses and Senior Standing</p> <p>Senior standing, 12 or more hours in AES or COM designated courses, or permission of instructor; satisfaction of all general studies requirements</p>	
<p>Minor or Unrestricted Elective (3) (<b>F, S, Su</b>)</p>		
		<p><b>TOTAL SEMESTER CREDIT HOURS:</b></p>

	Suggested Course plan	Prerequisite	Alternative Course Plan
<p><b>Semester:</b></p>			
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	<b>Suggested Course plan</b>	<b>Prerequisite</b>	<b>Alternative Course Plan</b>
<b>Semester:</b>			
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