

Metropolitan State College of Denver

DEPARTMENT

of

AVIATION and AEROSPACE SCIENCE



School of Professional Studies

Curriculum Guidelines

Fall 2007

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BS - University of Canterbury, NZ; MS - Geol. Sci., University of Colorado. ATP-SEL, Comm'l Heli, SES, ME, CFI, AGI, IGI, I & A-Gold Seal. Specializes in: pvt, commercial/inst, CFI, general aviation, FAA Part 141 Chief Ground Instructor, FAA Knowledge Exam testing, IDP, Credit for Prior Learning.

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BS, MS - Aeronautical & Astronautical Engineering, Ohio State University. A&P, CFI, II, MEI, Comm'l Glider, glider tow, Flight Dispatcher, IGI/AGI, ATP, Type Ratings in B-727, GS-2, Lear Jet. Specializes in: Airline Flight Officer program, Naval Aviator and Instructor Pilot, Airline Pilot, Charter Pilot, Aircraft Mechanic, Flight Dispatcher, Aerospace Engineer, Flight Team. AVS Web master.

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World Indoor Airport Manager. BS-Business, University of Colorado, BS-Computer Science, University of Colorado, MS-Computing Technology-Education, NSU.

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BS, MS - Engineering Systems Analysis, Rensselaer Polytechnic Institute. CFI, CFII, AGI, IGI, Comm'l ASEL, AMEL, Glider. Specializes in: aerodynamics, technically advanced aircraft systems (TAA), aviation weather, Pvt,Comm/Inst, CFI ground training, FAA Part 141 Assistant Chief Ground Instructor

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BS, Mechanical Engineering, - Illinois Institute of Technology; Graduate Meteorology, University of Wisconsin; MS, Systems Management, University of Southern California. Com/Inst/AGI. Specializes in: Space, Aerodynamics, Management, Meteorology, Military Careers Counselor, Propulsion.

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BA, MA, Ph.D.--Sociology, University of Colorado; Juris Doctor--University of Denver College of Law. Comm/Inst--ASEL, AGI-IGI. Specializes in: ground training, safety, airline management and aviation law.

STUDENT CHECKLIST

Follow these steps:

- (1) Apply to the College:** Prospective students can register by walk-in at the Central Classroom Building, room CN105; by filling out a Registration Form on-line at www.mscd.edu; or by phone at 303-556-3991.
- (2) Have transcripts sent to MSCD:** Contact all High Schools and Colleges attended and request that an official transcript be **sent to MSCD**. Request MSCD evaluation of transcripts.
- (3) Schedule Orientation and General Advising:** To schedule an orientation and general advising phone Academic Advising at 303-556-3680, or go to Central Classroom Building Room 104 (CN104).
- (4) Schedule appointment with AVS Faculty for Department advising:** Contact the AVS Department at 303-556-2983 to set up an appointment for advising in your major or go to Seventh Street Building Room 102.
- (5) Declare Major and Minor:** New students should declare a major and a minor, as soon as possible. With the exception of the Aerospace Maintenance Management Concentration, each concentration requires a minor. Declare your Major/Minor during your first advising session with any full-time Aviation and Aerospace Science professor.
- (6) Register for classes:** After your application for registration has been processed, you are eligible to register in the next semester which opens for registration (Fall, Spring, Summer). Go to MetroConnect (<http://metroconnect.mscd.edu>) for procedures and dates.
- (7) Establish an email account:** Students are provided free email access. All AVS Majors must establish and monitor their MSCD email account. Go to <http://www.mscd.edu/> select Registration/Records and follow directions. See any MSCD computer lab assistant for details. You may retrieve or send email, monitor college information, and access your personal records through MetroConnect at: <http://metroconnect.mscd.edu/cp/home/loginf>.
- (8) Obtain MSCD Catalog:** Students should purchase and review the MSCD Catalog in effect at the time they enter MSCD. Keep this catalog for the duration of your time at Metro.
- (9) CAPP Reports:** All AES majors must have a current CAPP (Curriculum, Advising & Program Planning) Report for advising with any full-time faculty.
- (10) FAA Medical Certificate:** Before enrolling as ATV4 or ATV5 majors and before initiating flight training, students should ensure that they can obtain the appropriate FAA medical certificate.

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DEGREE PROGRAMS

AVIATION TECHNOLOGY (ATV)

Professional Flight Officer Concentration (ATV4)

General Aviation/Air Carrier Concentration (ATV5)

Aerospace Operations Concentration (ATV3)

AVIATION MANAGEMENT (AMG)

Aerospace Management Concentration (AMG8)

Aerospace Maintenance Management Concentration (AMG7)

Minors for AVS Majors

Professional Flight Officer (ATV4) and General Aviation/Air Carrier (ATV5) Concentrations may select any non-AVS minor established at MSCD,

or the APL minor

Aerospace Operations Concentration (ATV3) may select any non-AVS minor established at MSCD

Aerospace Management Concentration (AMG8) requires a minor in the School of Business

AVS MINORS

for students in other disciplines (see Page 15)

Aviation Management (AMG)

Aviation Technology (ATV)

Airframe and Powerplant Mechanic (APL)

Private Pilot (PRP)

CERTIFICATE IN AIRPORT MANAGEMENT

AVS DEPARTMENT MISSION

The mission of the Aviation and Aerospace Science Department (AVS) is to provide a high quality education in preparation for employment in aviation or aerospace. We are dedicated to developing graduates with the intellectual and practical skills needed to compete in their chosen fields, and if so desired, continue on to graduate study. We offer comprehensive programs in flight crew training, aviation operations, and aviation management, as well as several minors.

There are three Aviation Technology concentrations:

Professional Flight Officer (ATV4): if you wish to pursue an airline flight career, requires a minor,

Corporate and General Aviation (ATV5): if you are interested in flight careers related to general business, but not necessarily with an airline, requires a minor, *and*

Aviation Operations (ATV3): if you are interested in the non-flying aspects of aviation operations such as aircraft dispatch, minor required.

Two Aviation Management concentrations are offered:

Aerospace Management Concentration (AMG8) if you are interested in the management of aviation businesses, from airports to airlines, requires a minor in the Business School, and

Aerospace Maintenance Management Concentration (AMG7) if you are interested in aviation maintenance management.

A **Certificate in Airport Management** is also available.

DEPARTMENT POLICIES

Fill out a Declaration of Major/Minor form, available in the AVS Office or from Central Advising, indicate your major, then, with help from the AVS office staff, choose a faculty advisor. Meet with your advisor within the first four weeks of each semester. Your advisor will be available to assist you throughout your college career. Become acquainted with faculty and staff and do not hesitate to ask questions or seek guidance if problems arise.

Certain FAA pilot certificates and ratings are required for the completion of ATV degrees, except ATV3, and minors. These are listed under each major. College credit for flight courses (AES 1500, 2500, 3520, etc.) may be used if transferred from an accredited college aviation program, such as that at the Colorado Northwestern Community College at Rangely, with whom we have an articulation agreement. Flight training is completed independently. Flight courses (graded as Satisfactory or Unsatisfactory) may be taken to obtain additional financial aid; however, these do not count as part of the degree program; consult your advisor and the financial aid office on your best option.

Any MSCD catalog in effect since initial enrollment may be used, provided enrollment is not interrupted by an absence of three consecutive semesters, including summer.

Many items of interest are posted on the AVS bulletin boards and web site at <http://www.mscd.edu/~aviation/> (job opportunities, internships, personal messages and general information). CHECK THEM OFTEN!!

Metro State is located on the Auraria Campus which includes the University of Colorado-Denver (UCD) and the Community College of Denver (CCD). This provides the opportunity become involved in diverse campus activities which will enrich your college experience.

AVS STUDENT ISSUES COMMITTEE

Requests for adjustment to AVS program requirements must be in writing. Include a current CAPP Report and written rationale for the requested change. Your rationale must be sufficiently complete for faculty to clearly understand the request. All requests are submitted to the AVS Student Issues Committee for consideration.

FAA APPROVED GROUND SCHOOL

We provide FAA Part 141 approved ground schools for Private, Instrument, Commercial and Certified Flight and Ground Instructor certificates and ratings. If you successfully complete AES 1100, *Aviation Fundamentals*, you are eligible for the FAA Private Pilot knowledge exam. AES 1800, *Commercial/Instrument Ground*, prepares you for the Instrument rating and Commercial Pilot knowledge exams. AES 3550, *FAA Instructor Certification - Ground*, prepares for the Fundamentals of Instruction (FOI), Certified Flight Instructor-Airplane, Basic and Advanced Ground Instructor knowledge exams.

FAA GROUND INSTRUCTOR CERTIFICATE

To obtain the FAA Advanced Ground Instructor Certificate (required for ATV5 if the CFI is not obtained), present to the FAA Flight Standards District Office (FSDO) satisfactory results of the FAA Knowledge exams: Fundamentals of Instructing (FOI) and Advanced Ground Instructor (AGI). The Denver FSDO is at 26805 E. 68th Ave, Suite 200, Denver, CO 80249 – ph. 303-342-1100, web site www.nw.faa.gov/fltstds/denfsdo/.

FAA KNOWLEDGE EXAM TESTING

We have FAA examining authority for FAR 141 ground school graduates for the Private Pilot, Instrument Rating and Commercial Pilot Knowledge Examinations. The exams are given by arrangement; see AVS department, Professors Balazs, Caine or King; fee is \$50.

CREDIT FOR FAA CERTIFICATES AND RATINGS and/or PRIOR AVIATION EXPERIENCE

Students enrolling in AVS programs who already have flight certificates and ratings and/or other aviation experience have several options:

- Those with FAA certificates and ratings, but without significant aviation-related work experience, may substitute, with the approval of the AVS Department, more advanced AVS courses for the basic required courses pertaining to the certificates or ratings held.
- Those with a record of aviation-related employment may apply for credit for college-level learning gained through experience by submitting a "prior learning portfolio" to the Center for Individualized Learning. In the portfolio the student describes and documents learning equivalent to specific AVS courses listed in the *Catalog*. The portfolio is evaluated and assessed by the AVS Department and credit is awarded on the basis of this evaluation. The charge for each credit hour requested is one-half the in-state tuition for one credit hour (see *Alternative Credit Options* in the *Catalog*).
- Complete an Individualized Degree Program through the Center for Individualized Learning. This provides an opportunity to design a major or minor program to meet specific educational goals not met by existing AVS programs (see *Special Academic Programs* in the *Catalog*) - www.mscd.edu/~cil/

FINANCIAL AID AND FLIGHT COURSES

You may be eligible for additional financial aid by enrolling in any of the following flight courses: AES 1500, AES 2500, AES 3520, AES 4500, AES 4510, AES 4520 or AES 4530. Consult your faculty advisor and the Financial Aid Office for more information.

CREDIT FOR FAA AIRFRAME AND POWERPLANT (A&P) CERTIFICATE

You may receive up to 25 semester hours credit for an A&P certificate if you provide evidence of holding the A&P certificate to the AVS department.

<http://www.mscd-aviation-aerospace.org/students/aandp.htm>

CREDIT FOR FAA AIRCRAFT DISPATCHER CERTIFICATE

You may receive 12 semester hours credit for a FAA Aircraft Dispatcher certificate if you provide evidence of holding the Aircraft Dispatcher certificate to the AVS department. <http://www.mscd-aviation-aerospace.org/students/dispatch.htm>

WORLD INDOOR AIRPORT (WIA) - Flight Simulation

This is a large flight training and simulation laboratory. You will acquire advanced flight skills in a variety of single, twin, and turbo prop **flight training devices (FTDs)**. Ten single engine FTDs, seven twin engine FTDs, and several twin engine **Personal Computer-based Aviation Training Devices (PCATD)** comprise the simulation equipment. Many of these can be configured as various models of different airplanes. The WIA has an Air Traffic Control system providing simulation of an operational air traffic control radar facility. The WIA also has a Flight Planning area for preparing and filing flight plans, complete with charts, maps, approach plates, and other planning materials. Fifty hours of FTD time may be used toward the commercial certificate; 20 hours for the instrument rating. Student flight instructors may obtain instructional experience by enrolling in two practica (AES 3570 and AES 4590).

The simulator courses offered are:

- AES 1710 Single Engine Flight Simulation I
- AES 1760 Single Engine Flight Simulation II
- AES 2710 Instrument Flight Simulation I
- AES 3710 Multiengine Flight Simulation I
- AES 4710 Turboprop Flight Simulation

COOPERATIVE EDUCATION/INTERNSHIPS

Many aviation Cooperative Education jobs and Internships are available. You may enroll for 12 semester hours of college credit in Cooperative Education courses (AES 3980), six semester hours of which may apply as electives in your degree. Contact Jeff Forrest, AVS Department Chair, for further information or the COOP office, 303-556-3290; web site is www.mscd.edu/~coop.

AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES (AAAE)

The MSCD student chapter of the AAAE invites all aviation students to become members. The goal is to promote professional development and instill professional attitudes in students engaged in the study of airport development, administration, management and operation, and related fields of aviation. AAAE is the world's largest professional organization for airport executives, representing thousands of management personnel at public use airports nationwide. The primary goal is to assist airport executives fulfill their responsibilities to the airports and the communities they serve. Details – Professor Jeff Price.

PRECISION FLIGHT TEAM

The precision flight team competes in annual regional and national meets with other members of the National Intercollegiate Flying Association, NIFA. Competition includes ground and flight events. Team members earn the right to compete through competition with each other each semester. Some expenses are met through various fund raising activities. The team also participates in community service activities. Any MSCD students interested in improving their skills as private or commercial pilots are encouraged to become involved by enrolling in AES 2330, Precision Flight and Navigation. Check the following web site: www.mscd.edu/~aviation/fltteam.htm

Flight Team Membership will help you further develop flight and flight planning skills. It also affords you the opportunity to make your name known on the national stage, as well as placing you in the position to win scholarships, cash awards and flight training awards from the airlines based on your performance. One of the additional benefits is the development of lasting friendships with fellow aerospace students at MSCD and across the nation.

INTERNATIONAL AVIATION FRATERNITY - Alpha Eta Rho

Alpha Eta Rho (AHP) was the first aviation college fraternity, begun at the University of Southern California in 1929. Its goals were (and are) to further all aspects of aviation, instill public confidence in aviation, promote interaction between students of, and professionals in, aviation and to promote affiliation among aviation students in education and research. The MSCD fraternity was chartered as the Sigma Phi chapter in 1970. Sigma Phi seeks to further aviation at MSCD, to use and expand knowledge and skills within the aviation professions and to better prepare members to meet the challenges of the aerospace industry. The fraternity has a variety of social and service activities such as fly-in picnics, banquets and parties; service projects and annual safety seminars. Also Careers Days, presentations to high school students, MSCD tours and other activities. All MSCD AES students are encouraged to join Alpha Eta Rho. www.ahp-sigmaphi.com

CREDIT FOR MILITARY TRAINING

American Council on Education (ACE) www.acenet.edu/calec/, Center for Adult Learning and Educational Credentials serves adult learners through: Corporate Programs, Military Programs, and the GED Testing Service. ACE's Military Programs division evaluates and recommends college credit for military courses and occupations. Students may obtain information concerning these programs from ACE's website <http://www.acenet.edu//AM/Template.cfm?Section=Home> and/or from Metro Transfer Services, 303-556-3774.

PROGRAM REQUIREMENTS FOR EACH MAJOR

Aviation Technology and Aviation Management programs and the General Studies courses for the AVS majors are listed on the following pages. With each program is a suggested sequence of courses for the eight semesters needed for the Bachelor of Science degree. The course sequence includes general studies and other courses in such a way that prerequisites will be met without impeding progress toward the degree. The notation “**Professional Pilot Documentation**” means that the FAA Commercial Pilot with the Instrument rating is required for the concentration or minor.

You must receive at least a “C” in all upper division AVS program courses.

NOTE: Before enrolling in ATV4 or ATV5, ensure that you can obtain a first class FAA medical certificate. For a list of FAA medical examiners - <http://ame.cami.jccbi.gov/>

Selection of Catalog for Requirements

You must use a single MSCD catalog, one in effect while you are enrolled at MSCD, to meet your degree requirements, including the General Studies, major and minor requirements.

If you are transferring from a regionally accredited Colorado community college you may complete degree requirements using an MSCD Catalog in effect while enrolled at the community college, subject to the following conditions:

- The degree Catalog selected does not predate the current MSCD catalog by more than three years.
- The degree Catalog selected may have been in use at any time from the time the student was continually enrolled at a regionally accredited Colorado community college to the semester for which the student is enrolling in MSCD.

GENERAL STUDIES & MULTICULTURAL REQUIREMENTS

Students seeking a B.S. in AVS programs must complete these General Studies courses:

Level I General Studies (13 SH minimum)

Composition: ENG 1010 & ENG 10206

Math: MTH 1110 College Algebra

-or-

MTH 1310 Finite Math for Mgt & Soc. Sciences4

Communication: SPE 10103

Level II General Studies (21 SH minimum)

Historical: Approved course*3

Arts & Letters: Approved courses*6

Social Sciences: ECO 2010 Principles of Economics - Macro3

ECO 2020 Principles of Economics - Micro3

Natural Science: PHY 1250 Physics of Aviation6

*Could also satisfy multicultural requirements.

Multicultural Requirement (3 SH minimum)

Multicultural: Approved Elective3

Professional Flight Officer Concentration

B.S. in AVIATION TECHNOLOGY

Designed for students planning careers as professional pilots with the airlines.

The Major Code for this Degree is: ATV

The Concentration Code for this Degree is: ATV4

<i>Required Courses</i>	<i>Semester Hours</i>
AES 1100 Aviation Fundamentals	6
AES 1400 Aviation Weather	3
AES 1710 Single Engine Flight Simulation I	
-or-	
AES 1760 Single Engine Flight Simulation II	3
AES 1800 Commercial/Instrument Ground	6
AES 2150 Avionics for Aviators	4
AES 2710 Instrument Flight Simulation I	3
AES 3000 Aircraft Systems and Propulsion	3
AES 3460 Weather for Aircrews.....	3
AES 3530 Aerodynamics	3
AES 3710 Multiengine Flight Simulation I	
-or-	
AES 4710 Turboprop Flight Simulation	4
AES 3850 Human Factors and Physiology of Flight	3
AES 3880 Aviation Security	3
AES 4040 Aircraft Performance.....	3
AES 4120 Air Carrier Systems	4
AES 4130 Flight Officer Duties and Responsibilities	4
AES 4370 Advanced Navigation Systems	3
AES 4860 Aviation Safety	3
AES 4910 Aviation Mgt Problems & Job Targeting.....	3
AES 4930 Professional Flight Standards Seminar	3
<i>Required Professional Pilot Documentation*</i>	
<i>Subtotal</i>	66-67

*Commercial/Instrument/Multiengine Airplane
(Commercial only for all other categories) AND CFI / CFI-
ME / CFI-IA Airplane (CFI only for all other categories,
except Advanced Ground/Instrument Ground for those
holding Lighter than Air category) OR Type Rating
AES Approved Elective** 1-2
Subtotal 68

**AES Approved Electives may be any AES course not
required in the concentration with the exception of the flight
courses: AES 1500, AES 2500, AES 3520, AES 4500, AES
4510, AES 4520, AES 4530, and AES 4550.

NOTE: Students must show the FAA certificates to the
department before graduation.

General Studies for all AES Majors (see P. 8) 34
Minor (non-AES except for Airframe and Powerplant
Mechanics minor which is 31 semester hours)..... **18-31**
Total Hours Required 120-133

Course Sequence:

Semester 1

AES 1100
AES 1400
AES 1710/
AES 1760
MTH 1110
Total 16 SH

Semester 3

AES 1800
AES 2710

ECO 2010
ENG 1020
Total 15 SH

Semester 5

AES 3000
AES 3460
AES 3880
GS Elec

Minor
Total 15 SH

Semester 7

AES 4370
Minor
AES 4910
AES 4860
Minor
Total 15 SH

Semester 2

ENG 1010
PHY 1250
SPE 1010
GS Elec

Total 15 SH

Semester 4

ECO 2020
AES 2150
GS Elective
Minor
Minor
Total 15 SH

Semester 6

AES 3530
AES 4040
AES 3710/
AES 4710
AES 3850
Minor
Total 15-16 SH

Semester 8

Elective
AES 4120
AES 4130
AES 4930
Minor
Total 17 SH

Corporate and General Aviation Concentration

B.S. in AVIATION TECHNOLOGY

Designed for students seeking careers as professional pilots in business, corporate or general aviation flight operations.

The Major Code for this Degree is: ATV

The Concentration Code for this Degree is: ATV5

<i>Required Courses</i>	<i>Semester Hours</i>
AES 1100 Aviation Fundamentals	6
AES 1400 Aviation Weather	3
AES 1710 Single Engine Flight Simulation I	
-or-	
AES 1760 Single Engine Flight Simulation II	3
AES 1800 Commercial/Instrument Ground 6	
AES 2710 Instrument Flight Simulation I.....	3
AES 3000 Aircraft Systems and Propulsion	3
AES 3460 Weather for Aircrews	3
AES 3530 Aerodynamics	3
AES 3710 Multiengine Flight Simulation I	
-or-	
AES 4710 Turboprop Flight Simulation	4
AES 3850 Human Factors & Physiology of Flight	3
AES 3880 Aviation Security	3
AES 4040 Aircraft Performance	3
AES 4370 Advanced Navigation Systems	3
AES 4860 Aviation Safety	3
AES 4910 Aviation Mgt Problems & Job Targeting	3
COM 2610 Introduction to Technical Writing	3
AES 4930 Professional Flight Standards Seminar	
-or-	
COM 4790 Senior Seminar in Tech Communications.....	3
Required Professional Pilot Documentation*	
<i>Subtotal</i>	57-58
<i>* Commercial/Instrument - Airplane (Commercial only for all other categories) AND CFI or Advanced Ground Instructor certificate.</i>	
Plus a minimum of 10 or 11 semester hours selected from:	
AES Approved Electives**.....	10-11
The following courses may be substituted for approved AES electives	
CIS 3270 Advanced Computer Apps for Business	3
MTH 1210 Introduction to Statistics	4
-or-	
CIS 2300 Business Statistics	3
MTH 1320 Calculus for the Mgt & Social Sciences	3
<i>Subtotal</i>	10-11
<i>**AES Approved Electives may be any AES course not required in the concentration with the exception of the flight courses: AES 1500, AES 2500, AES 3520, AES 4500, AES 4510, AES 4520, AES 4530, and AES 4550</i>	
General Studies for All AES Majors	34
Minor (non-AES except for Airframe and Powerplant Mechanics minor, which is 31 credits)	18-31
<i>Total Hours Required</i>	120-133

NOTE: it is recommended that students include AES 4120, *Air Carrier Systems*, and, AES 4130 *Flight Officer Duties & Responsibilities*, among their AES electives.

NOTE: The FAA Commercial Certificate and Instrument Rating should be completed by the beginning of the sixth semester and must be completed before graduation. Either the Certified Flight Instructor or Advanced Ground Instructor certificates must be obtained to graduate.

Course Sequence:

Semester 1	Semester 2
AES 1100	ENG 1010
AES 1400	PHY 1250
AES 1710/ AES 1760	SPE 1010
<u>MTH 1110</u>	<u>GS Elec</u>
Total 16 SH	Total 15 SH
Semester 3	Semester 4
AES 1800	ECO 2020
AES 2710	Elective
ECO 2010	COM 2610
<u>ENG 1020</u>	Minor
Total 15 SH	<u>Minor</u>
	Total 15 SH
Semester 5	Semester 6
AES 3000	AES 3530
GS Elec	AES 4040
AES 3460	AES 3710/ AES 4710
GS Elec	Minor
<u>Minor</u>	<u>Elective</u>
Total 15 SH	Total 15-16 SH
Semester 7	Semester 8
AES 3850	AES 4370
Elective	AES 4860
AES 3880	AES 4930
AES 4910	Elective
<u>Minor</u>	<u>Minor</u>
Total 15 SH	Total 15 SH

Aerospace Operations Concentration

B.S. in AVIATION TECHNOLOGY

Designed for students seeking careers in aviation or aerospace operations.

The Major Code for this Degree is: ATV

The Concentration Code for this Degree is: ATV3

<i>Required Courses</i>	<i>Semester Hours</i>	<u>Course Sequence:</u>	
AES 1100 Aviation Fundamentals	6	Semester 1	Semester 2
AES 1400 Aviation Weather	3	AES 1100	ENG 1010
AES 1710 Single Engine Flight Simulation I		AES 1400	PHY 1250
-or-		AES 1710/	SPE 1010
AES 1760 Single Engine Flight Simulation	3	AES 1760	
AES 2220 Flight Dispatcher/Load Planning	3	<u>MTH 1110</u>	<u>AES Elective</u>
AES 3000 Aircraft Systems and Propulsion	3	Total 16 SH	Total 15 SH
AES 3850 Human Factors & Physiology of Flight	3		
AES 3880 Aviation Security	3	Semester 3	Semester 4
AES 4040 Aircraft Performance	3	AES 2220	ECO 2020
AES 4860 Aviation Safety	3	ECO 2010	COM 2610
COM 2610 Intro to Technical Writing	3	ENG 1020	Minor
AES 4910 Aviation Mgt Problems & Job Targeting	3	Minor	AES Elective
COM 4790 Senior Seminar in Tech Communications		<u>AES Elective</u>	<u>AES Elective</u>
-or-		Total 15 SH	Total 15 SH
AES 4930 Professional Flight Standards Seminar			
-or-		Semester 5	Semester 6
AES 4950 Aviation & Aerospace Science Mgt Strategies	3	AES 3000	AES 3850
<i>Subtotal</i>	39	Minor	AES 3880
		AES Elective	Minor
Plus a minimum of 29 semester hours selected from:		AES Elective	AES Elective
AES Approved Electives*	29	<u>GS Elective</u>	<u>GS Elective</u>
The following courses may be substituted for approved AES		Total 15 SH	Total 15 SH
electives			
MTH 1210 Introduction to Statistics	4	Semester 7	Semester 8
-or-		AES 4040	COM 4790/
CIS 2300 Business Statistics	3	AES 4860	AES 4930/AES 4950
MTH 1320 Calculus for the Mgt & Social Sciences	3	Minor	Minor
PSY 1001 Introductory Psychology	3	AES Elective	AES Elective
MGT 3000 Organizational Management	3	<u>AES Elective</u>	AES Elective
MGT 4530 Organizational Behavior	3	Total 15 SH	<u>GS Elective</u>
<i>Subtotal</i>	29		Total 15 SH
*AES Approved Electives may be any AES course not required in the concentration, including credit for an A&P or Aircraft Dispatcher certificate, with the exception of the flight courses: AES 1500, AES 2500, AES 3520, AES 4500, AES 4510, AES 4520, AES 4530, and AES 4550.			
General Studies for All AVS Majors	34		
Minor (non-AES)	18		
<i>Total Hours Required</i>	120		

Aerospace Management Concentration

B.S. in AVIATION MANAGEMENT

Designed for students seeking a career in management within the aviation and aerospace industries

The Major Code for this Degree is: AMG

The Concentration Code for this Degree is: AMG8

<i>Required Courses</i>	<i>Semester Hours</i>
AES 1100 Aviation Fundamentals.....	6
AES 1400 Aviation Weather	3
AES 2220 Flight Dispatcher/Load Planning.....	3
AES 3220 Aviation Law & Risk Management	3
AES 3230 Airline Management	3
AES 3240 Airline Planning	3
AES 3850 Human Factors & Physiology of Flight	3
AES 3880 Aviation Security	3
AES 4200 Airport Planning	3
AES 4210 Airport Management.....	3
AES 4230 General & Business Aviation Operations	3
AES 4240 Air Cargo	3
AES 4910 Aviation Mgt Problems & Job Targeting	3
AES 4860 Aviation Safety	3
AES 4950 Aviation & Aerospace Science Mgt Strategies	
-or-	
COM 4790 Senior Seminar in Tech Communications.....	3
<i>Subtotal</i>	48

Additional Required Courses	
MTH 1210 Introduction to Statistics	4
-or-	
CIS 2300 Business Statistics	3
PSY 1001 Introductory Psychology	3
COM 2610 Introduction to Technical Writing	
-or-	
SPE 3100 Business and Professional Speaking	3
<i>Subtotal</i>	9-10

Plus a minimum of 11 semester hours of AES Approved	
Electives.....	11
General Studies for all AES majors	34
Minor in the School of Business	18
<i>Total Hours Required</i>	120-121

Course Sequence:

Semester 1

AES 1100
SPE 1010
AES 1400
<u>MTH 1110</u>
Total 16 SH

Semester 3

AES 2220
ECO 2010
ENG 1020
Elec
<u>GS Elec</u>
Total 15 SH

Semester 5

AES 3220
AES 3230
Elec
Business Minor
<u>Business Minor</u>
Total 14 SH

Semester 7

AES 4200
AES 4230
AES 4240
AES 3880
<u>Business Minor</u>
Total 15 SH

Semester 2

ENG 1010
MTH 1210/ CIS 2300
PHY 1250
<u>PSY 1001</u>
Total 16 SH

Semester 4

Elec
ECO 2020
COM 2610/ SPE 3100
GS Elec
<u>AES Elec</u>
Total 15 SH

Semester 6

AES 3240
AES 3850
Business Minor
Business Minor
<u>AES Elec</u>
Total 14 SH

Semester 8

AES 4210
AES 4860
AES 4950/ COM 4790
Business Minor
<u>GS Elec</u>
Total 15 SH

Aerospace Maintenance Management Concentration

B.S. in AVIATION MANAGEMENT

Designed for the student seeking a management position in maintenance who already holds an FAA A&P Certificate.

The Major Code for this Degree is: AMG

The Concentration Code for this Degree is: AMG7

Required Courses Semester Hours

AES 8888 Airframe and Powerplant Certificate	25
AES 1100 Aviation Fundamentals	6
AES 2150 Avionics for Aviators	4
AES 3220 Aviation Law & Risk Management	3
AES 3880 Aviation Security	3
AES 4120 Air Carrier Systems	4
AES 4860 Aviation Safety	3
AES 4950 Aviation & Aerospace Science Mgt Strategies	

-or-

COM 4790 Senior Seminar in Tech Communications	3
Subtotal	51

Plus a minimum of 3 semester hours selected from the following:

AES 3230 Airline Management	3
AES 3240 Airline Planning	3
AES 3850 Human Factors and Physiology of Flight	3
AES 3870 Aircraft Accident Investigation	3
AES 3980 Cooperative Education	6
AES 4150 Transport Category Aircraft Systems	2
Subtotal	3

General Studies for All AES Majors	34
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Additional Required Course (8 hours minimum)

CHE 1100 Principles of Chemistry	4
CHE 1150 Principles of Chemistry Laboratory	1
MTH 1210 Introduction to Statistics	4

-or-

MTH 1320 Calculus for the Mgt & Social Sciences	
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-or-

CIS 2300 Business Statistics	3
Subtotal	8-9

Management

MGT 3000 Organizational Management	3
MGT 3530 Human Resources Management	3
MGT 4000 Management Decision Analysis	3
MGT 4530 Organizational Behavior	3
MGT 4610 Labor/Employee Relations	

-or-

MGT Elective (3000/4000-level)	3
Subtotal	15

Computer Information Systems

CIS 2010 Computer Apps for Business	3
CIS 3270 Advanced Computer Appl's for Business.....	3
CIS Approved Elective	3
Subtotal	9
<i>Total Hours Required</i>	<i>120-121</i>

Course Sequence:

Semester 3

AES 1100
ENG 1010
SPE 1010
<u>MTH 1110</u>

Total 16 SH

Semester 5

AES 2150
GS Elec
ECO 2010
CHE 1100
<u>MGT 3000</u>

Total 16 SH

Semester 7

GS Elec
CIS Elec
MGT 4530
AES 3220
<u>GS Elec</u>

Total 15 SH

Semester 4

ENG 1020
MTH 1210/ MTH 1320
AES Elec
<u>PHY 1250</u>

Total 16 SH

Semester 6

AES 3880
CIS 2010
MGT 3530
ECO 2020
MGT 4000
<u>GS Elec</u>

Total 18 SH

Semester 8

AES 4860
AES 4950
CIS 3270
AES 4120
MGT 4610/ <u>MGT Elec</u>

Total 16 SH

AES ELECTIVES

The notation “**Electives**” in this Guide means any of the following AES Courses with the exception of those AES Courses listed in the “Major” category of the degree and **with the exception of the “flight” courses:** AES 1500, AES 2500, AES 3520, AES 4500, AES 4510, AES 4520, AES 4530 and AES 4550.

AES 1100	Aviation Fundamentals	AES 4150	Transport Category Aircraft Systems
AES 1400	Aviation Weather	AES 4200	Airport Planning
AES 1710	Single-Engine Flight Simulation I	AES 4210	Airport Management
AES 1760	Single-Engine Flight Simulation II	AES 4230	General & Business Aviation Operations
AES 1800	Commercial/Instrument Ground	AES 4240	Air Cargo
AES 2050	Aviation History & Future Development	AES 4250	Formulation of National Aviation Policy
AES 2150	Avionics for Aviators	AES 4370	Advanced Navigation Systems
AES 2200	Fundamentals of Air Traffic Control	AES 4580	Turbojet Flight Engineer or Type Rating
AES 2220	Flight Dispatcher/Load Planning	AES 4590	Flight Instructor Practicum
AES 2330*	Precision Flight & Navigation	AES 4600	Space Flight
AES 2710	Instrument Flight Simulation I	AES 4710	Turboprop Flight Simulation
AES 2750	Instrument Flight Simulation II	AES 4860	Aviation Safety
AES 3000	Aircraft Systems & Propulsion	AES 4910	Aviation Management & Job Targeting
AES 3220	Aviation Law & Risk Management	AES 4930	Professional Flight Standard Seminar
AES 3230	Airline Management	AES 4950	Aviation & Aerospace Science Mgt Strategies
AES 3240	Airline Planning		
AES 3330*	Intermediate Precision Flight & Navigation	CIS 2010	Computer Applications for Business
AES 3340*	Advanced Precision Flight and Navigation	CIS 3270	Advanced Computer Apps for Business
AES 3460	Weather for Aircrews	MTH 1210	Introduction to Statistics
AES 3530	Aerodynamics	CIS 2300	Business Statistics
AES 3550	FAA Instructor Certification - Ground	MTH 1320	Calculus for the Mgt. & Social Sciences.
AES 3570	Ground Instructor Practicum	PSY 1001	Introduction to Psychology
AES 3710	Multi-Engine Flight Simulation I		
AES 3850	Human Factors and Physiology of Flight		
AES 3870	Aircraft Accident Investigation		
AES 3880	Aviation Security		
AES 3980	Cooperative Education		
AES 4040	Aircraft Performance		
AES 4120**	Air Carrier Systems		
AES 4130**	Flight Officer Duties and Responsibilities		

* Flight Team Courses

** Simulated Airline Initial Training

AVIATION AND AEROSPACE SCIENCE MINORS for OTHER DISCIPLINES

These minors are designed to afford majors in other disciplines the opportunity to develop an understanding of aviation and aerospace operations. AVS majors may not elect the AMG or ATV minor. *Exception:* ATV4 and ATV5 majors may have the Airframe and Powerplant Mechanics minor (APL) as part of their program.

Aviation Management Minor (AMG)

<i>Required Courses</i>	<i>Semester Hours</i>
AES 1100 Aviation Fundamentals	6
AES 3220 Aviation Law & Risk Management	3
Subtotal.....	9
<i>Plus 12 hours selected from:</i>	
AES 3000 Aircraft Systems and Propulsion.....	3
AES 3230 Airline Management	3
AES 3240 Airline Planning.....	3
AES 3850 Human Factors & Physiology of Flight	3
AES 4200 Airport Planning.....	3
AES 4210 Airport Management	3
AES 4230 General & Business Aviation Operations.....	3
AES 4240 Air Cargo	3
AES 4860 Aviation Safety.....	3
AES 4910 Aviation Mgt Problems & Job Targeting	3
Subtotal	12
Total.....	21

Aviation Technology Minor (ATV)*

<i>Required Courses</i>	<i>Semester Hours</i>
AES 1100 Aviation Fundamentals	6
AES 1400 Aviation Weather.....	3
AES 1800 Instrument/Commercial Ground	6
AES 3000 Aircraft Systems and Propulsion.....	3
AES 3460 Weather for Aircrews.....	3
AES 3850 Human Factors & Physiology of Flight	3
AES 4860 Aviation Safety.....	3
Professional Pilot Documentation*	
Total.....	27

*Must have FAA Comm/Instrument to graduate.

Airframe & Powerplant Mechanics Minor (APL)

<i>Required Courses</i>	<i>Semester Hours</i>
Airframe & Powerplant Certificate.....	25
Plus:	
AES 4230 General & Business Aviation Ops	3
AES 4860 Aviation Safety (or approved elective for ATV majors)	3
Total	31

Private Pilot Minor (PRP)*

<i>Required Courses</i>	<i>Semester Hours</i>
AES 1100 Aviation Fundamentals	6
AES 1400 Aviation Weather	3
AES 1710 Single Engine Flight Simulation I	3
AES 2710 Instrument Flight Simulation I.....	3
AES 3850 Human Factors & Physiology of Flight	3
<i>Plus one of the two following courses:</i>	
AES 3000 Aircraft Systems & Propulsion	3
AES 4040 Aircraft Performance	3
Private Pilot Documentation*	
Total	21

*All private pilot minors must possess at least an FAA private pilot certificate.

CERTIFICATE PROGRAM

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

Airport Management*

This certificate will prepare a student for the American Association of Airport Executives (AAAE) Certified Member examination, often required for airport management positions.

<i>Required Courses</i>	<i>Semester Hours</i>
AES 3880 Aviation Security	3
AES 4200 Airport Planning	3
AES 4210 Airport Management	3
AES 4230 General & Business Aviation Ops	3
AES 4860 Aviation Safety	3
AES 3220 Aviation Law & Risk Management -or- AES 3230 Airline Management	
-or-	
AES 3240 Airline Planning	3
Total	18

*This certificate has a prerequisite course of AES 1100 which may be waived with appropriate work experience or course work.

AES COURSE PREREQUISITES

"Permission of instructor" means you must contact the instructor in person (not office personnel) with information validating why you believe that should be able to take the course.

AES 1100-6 Aviation Fundamentals - Corequisite: AES 1710 and AES 1400 (recommended)
AES 1400-3 Aviation Weather - Corequisite: AES 1100 or permission of instructor
AES 1500-1 Private Flight - permission of instructor
AES 1710-3 Single-Engine Flight Simulation I - Corequisite: AES 1100 (recommended)
AES 1760-3 Single-Engine Flight Simulation II - AES 1710, or Private Pilot Certificate, or instructor permission
AES 1800-6 Commercial/Instrument Ground - AES 1100, AES 1400, or permission of instructor
AES 2050-3 Aviation History and Aerospace Development
AES 2150-4 Avionics for Aviators - AES 1100, MTH 1110, PHY 1250 or instructor permission
AES 2200-4 Fundamentals of Air Traffic Control - AES 1100 or instructor permission
AES 2220-3 Flight Dispatcher/Load Planning - AES 1100, AES 1400
AES 2330-3 Precision Flight and Navigation - AES 1100 or Private Pilot Certificate
AES 2500-1 Instrument Flight - AES 1100 and permission of instructor
AES 2710-3 Instrument Flight Simulation I - Private Pilot Certificate or permission of instructor
AES 2750-3 Instrument Flight Simulation II - AES 1800, AES 2710, or permission of instructor
AES 3000-3 Aircraft Systems & Propulsion - AES 1100 or FAA Private Pilot Cert., & PHY 1250 or instructor permission
AES 3220-3 Aviation Law and Risk Management - AES 1100 and junior or senior standing
AES 3230-3 Airline Management - junior or senior standing, or permission of instructor
AES 3240-3 Airline Planning - junior or senior standing
AES 3330-2 Intermediate Precision Flight and Navigation - AES 2330
AES 3340-1 Advanced Precision Flight and Navigation - AES 3330
AES 3460-3 Weather for Aircrews - AES 1400, at least junior standing or permission of instructor
AES 3520-1 Commercial Flight - FAA Private Pilot certificate and permission of instructor
AES 3530-3 Aerodynamics - PHY 1250
AES 3550-3 FAA Instructor Certification—Ground - AES 1800 & FAA comm'l/instrument cert., or instructor permission
AES 3570-2 Ground Instructor Practicum - FAA Comm'l/Instrument certificate, CFI or AGI or IGI, or permission of instructor
AES 3710-3 Multiengine Flight Simulation I - FAA commercial/instrument certificate or permission of instructor
AES 3850-3 Human Factors and Physiology of Flight - junior or senior standing
AES 3870-3 Aircraft Accident Investigation - junior or senior standing or permission of instructor
AES 3880-3 Aviation Security - junior or senior standing
AES 4040-3 Aircraft Performance - AES 1100, AES 35350 and junior or senior standing
AES 4100-3 Advanced Air Traffic Control - AES 2200 or permission of instructor

AES 4120-4 Air Carrier Systems - junior or senior standing, AES 3000, AES 3530, AES 4040 & FAA Comm'l/Instrument
AES 4130-4 Flight Officer Duties and Responsibilities - junior or senior standing, AES 3000, 3530, 4040, & the FAA Commercial Cert. with Inst. Rating - Corequisite: AES 4120
AES 4150-2 Transport Category Aircraft Systems - senior standing, AES 4120, AES 4130, & FAA Comm'l/Instrument
AES 4200-3 Airport Planning - junior or senior standing or permission of instructor
AES 4210-3 Airport Management - junior or senior standing; AES 4200; or permission of instructor
AES 4230-3 General and Business Aviation Operations - senior standing or permission of instructor
AES 4240-3 Air Cargo - junior or senior standing
AES 4250-3 Formulation of National Aviation Policy - Student must be an aviation & aerospace science major with junior or senior standing & will be pre-approved by the department for enrollment in the course. The pre-approval process includes submitting an application to the department by September 30 before the spring semester in which he/she wants to enroll.
AES 4370-3 Advanced Navigation Systems - AES 1000 and junior or senior standing
AES 4500-1 Flight Multi-Engine - FAA Commercial Pilot Certificate and permission of instructor
AES 4510-1 Flight Instructor - FAA Commercial Pilot Certificate and permission of instructor
AES 4520-1 Flight Instructor-Instrument - FAA Certified Flight Instructor certificate and permission of instructor
AES 4530-1 Flight Instructor-Multi-Engine - CFI, multiengine rating and permission of instructor
AES 4550-1 Flight Helicopter - permission of instructor
AES 4570-1 Airline Transport Pilot - FAA Commercial Pilot Certificate and permission of instructor
AES 4580-4 Turbojet Flight Engineer or Type Rating - FAA Flight Engineer Knowledge exam &/or permission of instructor
AES 4590-2 Flight Instructor Practicum - AES 3570, FAA Commercial/Instrument Certificate, CFI, Advanced or Instrument Ground Instructor Certificate, or permission of instructor
AES 4600-3 Space Flight - junior or senior standing or permission of instructor
AES 4710-4 Turboprop Flight Simulation - FAA Pvt. Pilot cert., instrument rating or AES 2710, multiengine rating or AES 3710 recommended
AES 4760-3 Aerospace Education - permission of instructor
AES 4860-3 Aviation Safety - senior standing
AES 4910 Aviation Mgt & Job Targeting – AVS major, senior standing or permission of instructor
AES 4930-3 Professional Flight Standards Seminar - completion of, or concurrent enrollment in, all other Aviation and Aerospace Science core courses and senior standing
AES 4950-3 Aviation and Aerospace Science Management Strategies - completion of, or concurrent enrollment in, all other Aviation and Aerospace Science core courses and senior standing

Major/Minor Codes

1997 – 2008 Catalogs

Note: All Upper Division and all Certificate courses must be completed with a grade of “C” or better.

Catalog Year	Degree Title	Major Concentration	Concentration Code	Minor	Minor Code
1997-98 AND 1998-99	Aviation Management AMG	Airway Science Management	AV2	Aviation Management	AMG
		Airway Science Maintenance Management	AV4	Aviation Technology	ATV
	Aviation Technology ATV	Air Carrier/General Aviation	AT1	Airframe & Powerplant Mechanic	APL
		Aircraft Systems Management	AT2	Private Pilot	PRP
1999-00 AND 2000-01	Aviation Management AMG	General Aviation Air Carrier	AMG5	Aviation Management	AMG
		Airway Science Management	AMG2	Aviation Technology	ATV
		Airway Science Maintenance Management	AMG4	Airframe & Powerplant Mechanic	APL
	Aviation Technology ATV	Air Carrier/General Aviation	ATV1	Private Pilot	PRP
		Aircraft Systems Management	ATV2		
2001-02	Aviation Management AMG	General Aviation Air Carrier	AMG5	Aviation Management	AMG
		Airway Science Management	AMG2	Aviation Technology	ATV
		Airway Science Maintenance Management	AMG4	Airframe & Powerplant Mechanic	APL
	Aviation Technology ATV	Air Carrier/General Aviation	ATV1	Private Pilot	PRP
		Aircraft Systems Management	ATV2		
<i>Minor required Fall 2001</i>					
2002-03	Aviation Management AMG	Aerospace Management	AMG8	Aviation Management	AMG
		Aerospace Systems Management	AMG6	Aviation Technology	ATV
		Aerospace Maintenance Management	AMG7	Airframe & Powerplant Mechanics	APL
	Aviation Technology ATV	Air Carrier/General Aviation	ATV1	Private Pilot	PRP
		Aircraft Systems Management	ATV2		
<i>Minor required Fall 2002</i>					

Major/Minor Codes (continued)

Catalog Year	Degree Title and Code	Major Concentration	Concentration Code	Minor	Minor Code	
2003-04	Aviation Management AMG	Aerospace Management	AMG8	Aviation Management	AMG	
		Aerospace Systems Management	AMG6	Aviation Technology	ATV	
		Aerospace Maintenance Management	AMG7	Airframe & Powerplant Mechanics	APL	
	Aviation Technology ATV	Air Carrier/General Aviation	ATV1	Private Pilot	PRP	
		Aerospace Operations	ATV3			
2004-05 AND 2005-06 AND 2006-07	Aviation Management AMG	Aerospace Management	AMG8	Aviation Management	AMG	
		Aerospace Maintenance Management	AMG7	Aviation Technology	ATV	
				Airframe & Powerplant Mechanics	APL	
	Aviation Technology ATV	Professional Flight Officer	ATV4	Private Pilot	PRP	
		Corporate and General Aviation	ATV5			
		Aerospace Operations	ATV3			
	2004-05 AND 2005-06 and 2006-07	Aviation Management AMG	Aerospace Management	AMG8	Aviation Management	AMG
			Aerospace Maintenance Management	AMG7	Aviation Technology	ATV
					Airframe & Powerplant Mechanics	APL
Aviation Technology ATV		Professional Flight Officer	ATV4	Private Pilot	PRP	
		Corporate and General Aviation	ATV5			
		Aerospace Operations	ATV3			
2007-08		Aviation Management AMG	Aerospace Management	AMG8	Aviation Management	AMG
			Aerospace Maintenance Management	AMG7	Aviation Technology	ATV
					Airframe & Powerplant Mechanics	APL
	Aviation Technology ATV	Professional Flight Officer	ATV4	Private Pilot	PRP	
		Corporate and General Aviation	ATV5			
		Aerospace Operations	ATV3			

AFROTC INFORMATION

Students who are interested in joining the Air Force ROTC may do so through the University of Colorado AFROTC Program. Typically this involves weekly attendance at training in Boulder. Some of the requirements are listed here and for more information contact these people at **Det.105 CU/Boulder**:

Maj. Kimberly Fox - General Information	303 492-6108
Lynda Smith - University Liaison	303 492-8351
Maj. Alberto Mezarina - General Information	303 492-3130

Flying Requirements:

PILOTS: Vision- distant 20/70 correctable 20/20; near 20/20, meet refraction, accommodation and refraction requirements

Commitment-10 years after completing pilot training

NAVIGATORS: Vision - distant 20/200 correctable to 20/20; near 20/40 correctable to 20/20, meet refraction, accommodation and refraction requirements

Commitment - 6 years after completing navigator training

GENERAL:

- No history of allergies/hay fever after age 12; no history of asthma
- Standing height 64-77inches; sitting height 34-40 inches
- Pass Flying Class 1 commissioning physical
- Compete Spring junior year
- Be a US citizen
- Be commissioned before 29th birthday

Scholarships:

- 4 year - apply during junior year high school - contact Det. 105
- Tuition (\$15,000 cap), books \$600, stipend (\$2500-4000 varies by college year)
- 3 /2 year enroll in AFROTC- compete- yearly funds same as 4 year
- Pass Physical fitness test
- 2.5 minimum GPA
- Pass Commissioning physical
- Under age 31 on 31 Dec. of commissioning year

4 Year program requirements

- Freshman* 1 sh course + leadership lab each semester
- Sophomore* 1 sh course + leadership lab each semester, Field Training (summer camp) 4 weeks
- Junior* 3 sh course + leadership lab each semester
- Senior* 3 sh course + leadership lab each semester, commissioning

You can enter as a Sophomore and double up on the Freshman requirements

Commitment- 4 years active duty

TSA REQUIREMENTS FOR FTD (SIMULATOR) TRAINING

The Transportation Security Administration (TSA) requires that all MSCD students enrolling for flight simulator courses beginning Spring 2005 must present AVS with proof of US citizenship or, if non citizen, proof of registration with TSA and other documentation. Please obtain the documents that apply to you, and be prepared to show them to AVS personnel when your simulator class begins.

Proof of US citizenship: This is a one time requirement; an entry in your flight log book will be your proof of compliance. You'll need to show one of the following:

1. Original or government-issued certificated birth certificate (US) AND a government- issued photo ID, such as driver's license;
2. Current, valid (not expired) US Passport (contains photo);
3. Original US Nationalization Certificate with raised seal, & a government-issued photo ID;
4. Original US Citizenship & Immigration Services (USCIS) or Immigration & Naturalization Service (INS) form N-550 (or N-570, Certificate of Naturalization), plus a government-issued photo ID;
5. Original certification of birth abroad with raised seal or US Department of State Form FS-545 (or Form DS-1350), plus a government-issued photo ID;
6. Original certificate of US citizenship with raised seal, USCIS or INS Form N-560 (or Form N-561 or Form N-581), and a government-issued photo ID;
7. DOD or Federal Agency written certification attesting to the Federal employee's US citizenship or nationality, plus their government-issued photo ID.

Non - Citizen Students

The following must have been done for or by the student before simulator training:

Photo taken at the beginning of first simulator course, submitted to TSA, by MSCD.

The student must submit to TSA required background check information on a form available on-line at <https://www.flightschoolcandidates.gov>. This may be submitted from overseas before entering the US for training.

The student must submit fingerprints (10-fingers) to TSA. The American Association of Airport Executives (AAAE) is the clearinghouse for all fingerprint submissions to TSA. Information on AAAE procedures can be obtained at 703-797-2550. No procedures exist to have fingerprints taken at a foreign location.

The MSCD AVS Department has a web access code from the local FSDO, and then submit to TSA information that the pilot or student wants to start flight training and the type of training requested.

The pilot or student pilot must provide the MSCD AVS Department with a current and valid passport and visa, if appropriate.

Frequently asked questions at www.flightschoolcandidates.gov/student_faq.htm give students detailed information on the application procedure.

Flight simulator training may begin immediately upon submission of all required items to TSA and AAAE. If TSA notifies MSCD to cease training, flight training will be immediately terminated.

Flight training not started within 180-days from submission of required items to TSA and AAAE voids all submitted information and you must resubmit all the information.