

AVIATION SCIENCE

pcc.edu/fly

CAREER AND PROGRAM DESCRIPTION

The traditional entry-level position for professional airplane and helicopter pilots is a certified flight instructor (CFI) or pilot for a small air carrier. These positions offer the opportunity to gain experience sought by companies that employ pilots in a variety of interesting and challenging positions. Career opportunities for airplane pilots include work in flight instruction, charter, corporate, cargo, and airline industries. Career opportunities for helicopter pilots include flight instruction, charter, corporate, air-ambulance and external load operations. Aviation Science academic classes are offered at the Rock Creek campus. Flight classes are conducted at Hillsboro Aero Academy, an accredited FAA Part 141 certified flight school, located at the Hillsboro (for airplane flight training) and Troutdale Airport (for helicopter flight training). Additional fees apply for these classes. Visit the department website for a list of fees.

DEGREES AND CERTIFICATES OFFERED

ASSOCIATE OF APPLIED SCIENCE DEGREE

Aviation Science Airplane without Flight Instructor
 Aviation Science Airplane with Flight Instructor
 Aviation Science Helicopter (also includes Flight Instructor)

Academic Prerequisites

- The Aviation Science program is a restricted entry program with limited enrollment.
- Applicants must take the placement test administered through the campus assessment centers. Minimum test scores:
 - Placement into MTH 65 or higher.
 - Placement into WR 121Z or higher.

Academic Requirements

- None

Non-Academic Prerequisites

- Attendance at an aviation science orientation or individual advising required prior to beginning the program. Please see www.pcc.edu/fly for dates or contact the Aviation Science Department for dates or appointments.
- Additionally, the FAA requires a Class II Medical Certificate prior to beginning flight training. See www.pcc.edu/fly and click "Getting Started" for details.

Non-Academic Requirements

- None

ASSOCIATE OF APPLIED SCIENCE DEGREE

Aviation Science Airplane - Flight Instructor (p. 1)
 Aviation Science Airplane - Without Flight Instructor (p. 1)
 Aviation Science Helicopter (p. 2)

AVIATION SCIENCE - AIRPLANE WITH FLIGHT INSTRUCTOR AAS DEGREE

Minimum 98 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. In addition to required courses in the program of study, students must satisfy MTH 58/65 competency. Students should consult with program advisors for course planning.

Course of Study: Flight Instructor Option

Code	Title	Credits
AVS 107A	Flight Preparation Lab - Private Airplane	1
AVS 107B	Flight Preparation Lab - Instrument Airplane	1
AVS 107C	Flight Preparation Lab - Airplane Intro to Commercial	1
AVS 117	Aviation Study and Professionalism	4
AVS 120	Private Pilot Ground	4
AVS 125	Airplane: Private Pilot Flight	4
AVS 127	Introduction to Aviation	4
AVS 130	Instrument Pilot Ground	4
AVS 135	Airplane: Instrument Flight	4
AVS 137	Applied Aerodynamics	4
AVS 140	Airplane: Commercial Pilot Ground	4
AVS 145	Introduction to Commercial Airplane	2
AVS 157	Aircraft Systems & Structures I: Airframe	3
AVS 167	Aircraft Systems: Powerplant	3
AVS 177	Pilot Human Factors and Safety Management	4
AVS 207A	Single Engine CFI Lab	1
AVS 207B	Flight Preparation Lab - Airplane Multi-Engine Instructor	1
AVS 207C	Flight Preparation Lab - Airplane Instructor CFII/SEL	1
AVS 217	Aviation Weather Services	4
AVS 225	Airplane: Commercial Flight	3
AVS 227	Aviation Careers	4
AVS 230	Initial Flight Instructor Ground	5
AVS 236	Airplane Multi-Engine Instructor Flight	2
AVS 237	Aviation Law and Regulations	4
AVS 240	Instrument Flight Instructor Ground	2
AVS 243	Airplane Single-Engine CFI Ground/Flight	1
AVS 244	Airplane Certified Flight Instructor Instrument	1
AVS 255	Multi-Crew Operations	1
AVS 267	Economics of Flight Operations	4
GS 109	Physical Science (Meteorology) *	4
WR 121	Composition I (WR121=WR121Z) ^Z	4
General Education: 3 courses		
Total Credits		98

* Could be used as General Education

Z This course is part of Oregon Common Course Numbering. WR 121 and WR 121Z are equivalent.

AVIATION SCIENCE - AIRPLANE WITHOUT FLIGHT INSTRUCTOR AAS DEGREE

Minimum 90 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. In addition to required courses in the program of study, students must satisfy MTH 58/65 competency. Students should consult with program advisors for course planning.

Course of Study: Without Flight Instructor Option

Code	Title	Credits
AVS 107A	Flight Preparation Lab - Private Airplane	1
AVS 107B	Flight Preparation Lab - Instrument Airplane	1
AVS 107C	Flight Preparation Lab - Airplane Intro to Commercial	1
AVS 117	Aviation Study and Professionalism	4
AVS 120	Private Pilot Ground	4
AVS 125	Airplane: Private Pilot Flight	4
AVS 127	Introduction to Aviation	4
AVS 130	Instrument Pilot Ground	4
AVS 135	Airplane: Instrument Flight	4
AVS 137	Applied Aerodynamics	4
AVS 140	Airplane: Commercial Pilot Ground	4
AVS 145	Introduction to Commercial Airplane	2
AVS 157	Aircraft Systems & Structures I: Airframe	3
AVS 167	Aircraft Systems: Powerplant	3
AVS 177	Pilot Human Factors and Safety Management	4
AVS 207A	Single Engine CFI Lab	1
AVS 217	Aviation Weather Services	4
AVS 225	Airplane: Commercial Flight	3
AVS 227	Aviation Careers	4
AVS 237	Aviation Law and Regulations	4
AVS 255	Multi-Crew Operations	1
AVS 267	Economics of Flight Operations *	4
GS 109	Physical Science (Meteorology) *	4
WR 121	Composition I (WR121=WR121Z) ^Z	4
Aviation Science Program Electives		5
General Education: 3 courses		
Total Credits		90

* Could be used as General Education

Z This course is part of Oregon Common Course Numbering. WR 121 and WR 121Z are equivalent.

AVIATION SCIENCE - HELICOPTER AAS DEGREE

Minimum 96 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. In addition to required courses in the program of study, students must satisfy MTH 58/65 competency. Students should consult with program advisors for course planning.

Aviation Science-Helicopter Degree Courses

Code	Title	Credits
AVS 108A	Flight Preparation Lab - Private Helicopter	1
AVS 108B	Flight Preparation Lab - Helicopter Basic Comm Instrument	1
AVS 115	Helicopter Private Pilot Flight	4
AVS 117	Aviation Study and Professionalism	4
AVS 120	Private Pilot Ground	4
AVS 120H	Helicopter Private Pilot Differences	1
AVS 127	Introduction to Aviation	4
AVS 130	Instrument Pilot Ground	4
AVS 137	Applied Aerodynamics	4

AVS 156	Helicopter Basic Commercial w/ Instrument	5
AVS 157	Aircraft Systems & Structures I: Airframe	3
AVS 167	Aircraft Systems: Powerplant	3
AVS 177	Pilot Human Factors and Safety Management	4
AVS 208A	Flight Preparation Lab - Helicopter Advanced Commercial	1
AVS 208B	Flight Preparation Lab - Helicopter Flight Instructor	1
AVS 208C	Flight Preparation Lab - Helicopter Instrument Instructor	1
AVS 216	Helicopter Advanced Commercial	5
AVS 217	Aviation Weather Services	4
AVS 227	Aviation Careers	4
AVS 230	Initial Flight Instructor Ground	5
AVS 237	Aviation Law and Regulations	4
AVS 240	Instrument Flight Instructor Ground	2
AVS 255	Multi-Crew Operations	1
AVS 265	Helicopter: CFI Flight	3
AVS 266	Helicopter CFII Flight	1
AVS 267	Economics of Flight Operations *	4
GS 109	Physical Science (Meteorology) *	4
PHY 101	Force, Motion, and Energy *	4
or PHY 201	General Physics	
WR 121	Composition I (WR121=WR121Z) ^Z	4
General Education: 2 courses		
Total Credits		96

* Could be used as General Education

Z This course is part of Oregon Common Course Numbering. The following courses are equivalent: WR 121 and WR 121Z

AVIATION SCIENCE PROGRAM ELECTIVES ¹

Code	Title	Credits
BA 101	Introduction to Business (BA101=BA101Z) ^Z	4
BA 206	Management Fundamentals	3
BA 211	Principles of Financial Accounting (BA211=BA211Z) ^Z	4
CAS 111D		3
CAS 133		4
CAS 170		3
CAS 171		3
CAS 216		3
CAS 217		3
CG 100	College Survival and Success	3
CG 105	Scholarships: \$\$ for College	2
CG 111A	Study Skills for College Learning	3
CG 111B	Study Skills for College Learning	2
CG 111C	Study Skills for College Learning	1
CG 114	Financial Survival for College Students	1
CG 145	Stress Management	2
CIS 120	Digital Literacy *	4
CIS 121	Information Systems and Programming *	4
EC 200	Introduction to Economics *	4

EC 201	Principles of Economics: Microeconomics	4	Z
EC 202	Principles of Economics: Macroeconomics	4	This course is part of Oregon Common Course Numbering. The following courses are equivalent:
EMS 100	Introduction to Emergency Medical Services	2	BA 101 and BA 101Z
EMS 105	EMT Part I	6	BA 211 and BA 211Z
EMS 106	EMT Part II	6	MTH 111 and MTH 111Z
FN 110	Personal Nutrition	3	MTH 112 and MTH 112Z
G 207	Geology of the Pacific Northwest	3	MTH 243, STAT 243, and STAT 243Z
HE 295 & PE 295	Health and Fitness for Life and Health and Fitness for Life Lab	3	PSY 201A and PSY 201AZ
MSD 101	Principles of Management and Supervision	3	WR 121 and WR 121Z
MSD 105	Workplace Communication Skills	3	WR 121H and WR 121HZ
MSD 110	Gender Conflict Resolution	1	WR 122 and WR 122Z
MSD 115	Improving Work Relations	3	WR 122H and WR 122HZ
MSD 117	Customer Relations	3	WR 227 and WR 227Z
MTH 111	Precalculus I: Functions (MTH111=MTH111Z) ^{*,Z}	4	
MTH 112	Precalculus II: Trigonometry (MTH112=MTH112Z) ^{*,Z}	4	
MTH 241	Calculus for Management, Life and Social Science	4	
STAT 243	Elementary Statistics I (MTH/STAT243=STAT243Z) ^{*,Z}	4	
PHY 101	Force, Motion, and Energy [*]	4	
PHY 201	General Physics [*]	4	
PSY 201A	Introduction to Psychology I (PSY201A=PSY201AZ) ^{*,Z}	4	
PSY 101	Psychology and Human Relations [*]	4	
UAS 100	Career Explorations and Intro to Unoccupied Aircraft Systems	1	
UAS 101	UAS Pilot Test Prep	2	
UAS 102	UAS Flight Operations	2	
WR 121	Composition I (WR121=WR121Z) ^Z	4	
WR 122	Composition II (WR122=WR122Z) ^Z	4	
WR 122H	Composition II: Honors (WR122H=WR122HZ) ^Z	4	
WR 227	Technical Writing (WR227=WR227Z) ^Z	4	
PE	Any 100 or 200 level course (up to 3 credits)	1	
Foreign Language	Any 100 or 200 level course [*]	1-5	

*

Could be used as General Education.

1

Note: Other electives applicable to an aviation career may be approved on a case by case basis. In order to meet the credit minimum for the degree requirements, some courses may count toward Electives or General Education, but not both.