Aviation Technology (AVTY)

Community & Technical College
Aviation Program (https://www.ctc.uaf.edu/programs/aviation-maintenance/) 907-445-2800

AVTY F100  Private Pilot Ground School
4 Credits
Offered Fall
Study of aircraft and engine operation and limitations, aircraft flight instruments, navigation, navigation computers, national weather information and dissemination services. Federal aviation regulations, flight information publications, radio communications and navigation. Preparation for FAA private pilot-airplane written exam.
Lecture + Lab + Other: 4 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F101  Private Pilot Flight Training
2 Credits
Offered As Demand Warrants
Flight instruction is arranged by student through approved pilot school or independent flight instructor. Training will meet federal aviation regulations. Course completion requires awarding of private pilot certificate.
Prerequisites: Department approval required.
Lecture + Lab + Other: 2 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F102  Commercial Ground Instruction
3 Credits
Offered Spring
Advanced study of aircraft performance, airplane systems (including complex single engine, multi-engine and turboprop aircraft), navigation, regulations and meteorology. Employment considerations for commercial pilots surveyed. Preparation for the FAA commercial pilot-airplane written exam.
Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F103  Commercial Flight Training
2 Credits
Offered As Demand Warrants
Flight instruction is arranged by student through approved pilot school or independent flight instructor. Training will meet federal aviation regulations. Course completion requires awarding of commercial pilot certificate.
Prerequisites: Private Pilot certificate, AVTY F102 or concurrent enrollment, or passing score on FAA Commercial Pilot written exam, department approval required.
Lecture + Lab + Other: 2 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F105  Seaplane Flight Training
1 Credit
Offered As Demand Warrants
Flight instruction is arranged by student through approved pilot school or independent flight instructor. Training will meet federal aviation regulations. Course completion requires awarding of single-engine sea rating.
Prerequisites: Private pilot certificate or higher, department approval required.
Lecture + Lab + Other: 1 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F107  Multi-Engine Flight Training
1 Credit
Offered As Demand Warrants
Flight instruction is arranged by student through approved pilot school or independent flight instructor. Training will meet federal aviation regulations. Course completion requires awarding of multi-engine rating.
Prerequisites: Private pilot certificate or higher, department approval required.
Lecture + Lab + Other: 1 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F108  Introduction to Skis
1 Credit
Offered As Demand Warrants
Instruction with a certified flight instructor or flight school in techniques of ski-plane operation and cold weather maintenance. The student is responsible for making arrangements for an appropriate aircraft, instructor and financing.
Prerequisites: Private pilot certificate.
Lecture + Lab + Other: 1 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F109  Glider Flight Training
1 Credit
Offered As Demand Warrants
Flight instruction is arranged by student through approved pilot school or independent flight instructor. Training will meet federal aviation regulations. Course completion requires awarding of glider and private or commercial pilot certificate with a glider category rating.
Prerequisites: Department approval.
Lecture + Lab + Other: 1 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F111  Fundamentals of Aviation
3 Credits
Offered As Demand Warrants
Basic concepts associated with the aircraft and its environment. Aircraft and its components, including basic systems, Federal Aviation Administration regulations, airports and airspace utilization, aeronautical charts, navigation, weather theory, medical and emergency factors.
Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F116  Aviation History
3 Credits
Offered As Demand Warrants
Aviation from its early days to the present. People, places and machines contributing to the development of Alaskan aviation.
Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F121  Introduction to Aviation Safety
2 Credits
Offered As Demand Warrants
An introduction to aviation safety designed to develop a positive attitude toward safety, refresh aeronautical knowledge and improve aeronautical skills. Proof required first day of class.
Prerequisites: Pilot's Certificate or enrollment in Aviation program.
Lecture + Lab + Other: 2 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

907-455-2800
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Offered As Demand Warrants</th>
<th>Prerequisites</th>
<th>Grading System</th>
<th>Lecture + Lab + Other</th>
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<tbody>
<tr>
<td>AVTY F122</td>
<td>Private Pilot Flight Training - Rotorcraft I</td>
<td>1.5</td>
<td>Offered As Demand Warrants</td>
<td>Pilot-owner. Proof required first day of class.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>0 + 3 + 0</td>
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<td>AVTY F124</td>
<td>Private Pilot Flight Training - Rotorcraft II</td>
<td>1.5</td>
<td>Offered As Demand Warrants</td>
<td>Designed for the Professional Piloting program.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>0 + 3 + 0</td>
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<td>AVTY F126</td>
<td>Private Pilot Flight Training - Rotorcraft III</td>
<td>1.5</td>
<td>Offered As Demand Warrants</td>
<td>Includes compliance with FAA flight hour and certification requirements.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>0 + 3 + 0</td>
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<td>AVTY F128</td>
<td>Instrument Flight Training - Rotorcraft</td>
<td>2</td>
<td>Offered As Demand Warrants</td>
<td>FAA Private Pilot Certificate; admission to the Professional Piloting program.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>0 + 4 + 0</td>
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<td>AVTY F155</td>
<td>Preventive Maintenance</td>
<td>1-3</td>
<td>Offered Spring</td>
<td>Designed for the pilot-owner. Proof required first day of class.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>1-3 + 0 + 0</td>
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<td>AVTY F200</td>
<td>Instrument Ground School</td>
<td>4</td>
<td>Offered Fall</td>
<td>Instrument flight operations in detail, altitude instrument flying, air traffic control and navigation facilities, pilot responsibilities. IFR enroute charts, instrument approach procedures. Federal Aviation Regulations, flight planning, human factors and meteorology. Includes optional visits to FAA, RAPCO and ARTCC facilities. Proof required first day of class.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>3 + 3 + 0</td>
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<tr>
<td>AVTY F201</td>
<td>Instrument Pilot Training</td>
<td>2</td>
<td>Offered As Demand Warrants</td>
<td>Flight instruction is arranged by student through approved pilot school or independent flight instructor. Cost of flight instruction varies with location of instruction. Training will be in accordance with current Federal Aviation Regulations. Course completion requires awarding of instrument rating.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>2 + 0 + 0</td>
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<tr>
<td>AVTY F202</td>
<td>Flight Instructor Ground School</td>
<td>3</td>
<td>Offered As Demand Warrants</td>
<td>Prepartion for the FAA certified flight instructor or advanced ground instructor written exam.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>3 + 0 + 0</td>
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<tr>
<td>AVTY F203</td>
<td>Flight Instructor Flight Training</td>
<td>2</td>
<td>Offered As Demand Warrants</td>
<td>Flight instruction is arranged by student through approved pilot school or independent flight instructor. Training meets federal aviation regulations. Course completion requires awarding of certified flight instructor certificate.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>2 + 0 + 0</td>
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<tr>
<td>AVTY F205</td>
<td>Instrument Instructor Flying</td>
<td>3</td>
<td>Offered As Demand Warrants</td>
<td>Prepartion for certification as an instrument flight instructor.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>3 + 0 + 0</td>
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<tr>
<td>AVTY F206</td>
<td>ATP Ground Instruction</td>
<td>4</td>
<td>Offered As Demand Warrants</td>
<td>Prepartion for the FAA airline transport pilot written exam.</td>
<td>Letter Grades with option of Plus/Minus</td>
<td>4 + 0 + 0</td>
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AVTY F207  ATP Flying
2 Credits
Offered As Demand Warrants
Qualification for single- or multi-engine FAA airline transport pilot certificate.

Prerequisites: Commercial pilot certificate, 1500 hours of flight time as pilot or equivalent as described in FAR 61.155; AVTY F206 or passing score on FAA airline transport pilot written exam; current FAA first class medical certificate.

Lecture + Lab + Other: 2 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F211  Instrument Flying
3 Credits
Offered As Demand Warrants

Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F220  Basic Flight Physiology
3 Credits
Offered As Demand Warrants
Understanding the physiology of flight and using this knowledge to explain why certain phenomena occur to the mind and body during flight. Proof required first day of class.

Prerequisites: Pilot’s Certificate or enrollment in Aviation program.

Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F226  Flight Engineer Ground School
4 Credits
Offered As Demand Warrants
A comprehensive examination of the major systems of one of the following aircraft: turbojet (B-727, DC-8, B-707); turboprop (L-382, L-188); or reciprocating (DC-6). Preparation for the FAA flight engineer written exam.

Prerequisites: FAA commercial pilot license and instrument rating or equivalent; department approval.

Lecture + Lab + Other: 4 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F231  Arctic Survival
3 Credits
Offered Spring
Use of principles, procedures, techniques and equipment to survive extreme Arctic conditions and assist in safe recovery. Lab required.

Cross-listed with EMS F257.

Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F232  Aviation Astronomy and Navigation
3 Credits
Offered As Demand Warrants
Air navigation and astronomy, including charts, equipment, star and constellation identification, and calculations.

Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F235  Elements of Weather
3 Credits
Offered Fall
Weather as it affects aircraft operators with an emphasis on interior Alaska.

Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F239  Aircraft Dispatcher
4 Credits
Offered As Demand Warrants
Coordinating functions involving the aircraft and other departments of an airline business. Those wanting to be eligible for aircraft dispatcher certificate must be 23 years of age.

Lecture + Lab + Other: 4 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F240  Commercial Flight Instruction - Rotorcraft I
2 Credits
Offered As Demand Warrants
Develops commercial flight skills, including night flight, aviation physiology, advanced aerodynamics, aircraft performance, weight and balance and regulations for commercial pilots and commercial flight operations. Includes compliance with Federal Aviation Administration flight hour and certification requirements.

Prerequisites: AVTY F200; AVTY F242; AVTY F244 (all courses may be taken concurrently); FAA Private Pilot Certificate; admission to the Professional Piloting program.

Lecture + Lab + Other: 0 + 4 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F242  Commercial Flight Instruction Rotorcraft II
2 Credits
Offered As Demand Warrants
Assesses commercial flight skills, including night flight, aviation physiology, advanced aerodynamics, aircraft performance, weight and balance and regulations for commercial pilots and commercial flight operations. Includes compliance with Federal Aviation Administration flight hour and certification requirements.

Prerequisites: AVTY F102; AVTY F240; AVTY F243 (all courses may be taken concurrently); FAA Private Pilot Certificate; admission to the Professional Piloting program.

Lecture + Lab + Other: 0 + 4 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F244  Commercial Flight Instruction - Rotorcraft III
2 Credits
Offered As Demand Warrants
Assesses commercial flight skills, including night flight, aviation physiology, advanced aerodynamics, aircraft performance, weight and balance and regulations for commercial pilots and commercial flight operations. Includes compliance with Federal Aviation Administration flight hour and certification requirements.

Prerequisites: AVTY F102; AVTY F240; AVTY F243 (all courses may be taken concurrently); FAA Private Pilot Certificate; admission to the Professional Piloting program.

Lecture + Lab + Other: 0 + 4 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F402  Aircraft Management
4 Credits
Offered As Demand Warrants
Securing, dispatching and monitoring aircraft operations. Safety, security, community relations, cost-effective scheduling and personnel management for mission scheduling.

Lecture + Lab + Other: 4 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus
AVTY F405  Advanced Aircraft Operations
3 Credits
Offered As Demand Warrants
Techniques and requirements associated with the operation of turbine-powered aircraft, remotely piloted aircraft, helicopters and STOL aircraft for pilots and air workers; safety; systems; aerodynamics; operating characteristics.
Prerequisites: AVTY F100, AVTY F111.
Lecture + Lab + Other: 3 + 0 + 0
Grading System: Letter Grades with option of Plus/Minus

AVTY F410  Techniques of Bush Flying
2 Credits
Offered As Demand Warrants
Flight training emphasizing emergency procedures in remote locations, off-airport operations, critical flight attitudes, low-level flight, terrain flying, special maneuvers and unique soft and short field takeoffs and landings.
Prerequisites: AVTY F231; AVTY F235; commercial rating; 20 hours taildragger time.
Lecture + Lab + Other: 1 + 2 + 0
Grading System: Letter Grades with option of Plus/Minus