WHY REDSTONE? Since 1965, more than 10,000 Redstone College students have become skilled, in-demand graduates, thanks to an education formula designed for success:

• faculty with industry experience
• hands-on training
• career-focused education
• industry relationships
• career assistance
• tuition-free alumni retraining (books, tools, lab fees may apply)

• flexible scheduling
• preparation for industry certification exams*
• financial assistance†
• no-cost tutoring
• Snap-on® tool kit

*Graduates wishing to attain certification must take and pass any applicable tests/exams
†Available to those who qualify

Real-Job Training. Real-Job Rewards.

All Redstone College institutions are nationally accredited by the Accrediting Council for Independent Colleges and Schools (ACICS). Not all programs available at all institutions. For important program disclosure information, including salary information, job titles and employers of our graduates, as well as student loan default rates, and potential occupations from the Department of Education, visit redstone.edu/disclosures. © 2015 Alta Colleges, Inc.

Start building your career today! Call 877-337-8525 or visit us online at redstone.edu.
If you’re a high school student, please call 888-748-0010

Redstone College - Denver
10851 West 120th Avenue, Broomfield, Colorado 80021

Redstone College - Denver East
7350 North Broadway, Denver, Colorado 80221

All Redstone College institutions are nationally accredited by the Accrediting Council for Independent Colleges and Schools (ACICS). Not all programs available at all institutions. For important program disclosure information, including salary information, job titles and employers of our graduates, as well as student loan default rates, and potential occupations from the Department of Education, visit redstone.edu/disclosures. © 2015 Alta Colleges, Inc.
SPEND LESS TIME IN SCHOOL, MORE TIME BUILDING YOUR CAREER

The FAA certifies about 170 schools to train airframe and powerplant (A&P) mechanics. Some programs require up to 24 months to complete, but at Redstone College, in just 18 months, you can graduate with an associate degree in aviation technology.

Career Profile

Looking for an in-demand career path that lets you work with your hands? Become an airframe and powerplant technician and keep airplanes in safe flying condition.

You’ll be trained to service, repair and overhaul an array of aircraft components and systems, with opportunities for work and career advancement almost anywhere in the U.S.

Redstone graduates can enter a variety of sectors within the aviation industry:

- general aviation
- military contracting
- fixed-base operations (FBO’s)
- manufacturing
- maintenance for flight training schools
- helicopter companies
- oil and gas

Experienced A&P’s with FAA certification and administrative ability can even be selected for supervisory and executive positions or to become designated FAA inspectors.

Career Outlook

Opportunities appear favorable through 2022 for aircraft mechanics that complete FAA-approved training programs, thanks to:

- an increase in passenger air traffic
- a need to replace mechanics expected to retire in coming years
- a shortage of A&P college graduates

Job opportunities will be best at small commuter and regional airlines – the fastest-growing segment in air transportation, as well as in FAA repair stations.†


The Department of Labor lists the following as potential careers for graduates of this program.†

<table>
<thead>
<tr>
<th>Standard Occupation Code (SOC)</th>
<th>Potential Careers</th>
</tr>
</thead>
<tbody>
<tr>
<td>49-2091</td>
<td>Avionics technicians</td>
</tr>
<tr>
<td>49-3011</td>
<td>Aircraft mechanics and service technicians</td>
</tr>
</tbody>
</table>

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website at http://www.redstone.edu/disclosures

THE PROGRAM

Airframe and Powerplant (A&P)

Associate of Occupational Studies in 18 months
Certified by the Federal Aviation Administration (FAA)

Become an A&P technician and keep airplanes in safe flying condition – servicing, repairing and overhauling aircraft components.

Instructors with industry expertise will mentor you in hands-on labs in three separate hangars, using industry-relevant equipment including:

- two Rolls-Royce RB 211-22B2C turbine engines
- three Cessna 172s
- a LearJet 24D
- more than 80 aircraft engines

We will also guide you in courses designed to ensure your success in A&P, such as:

- Aviation Maintenance Practices
- Hydraulic and Landing Gear
- Aircraft Flight Control
- Aviation Science

Plus, we’ll help you prepare for FAA certification†, which qualifies you to work for major airlines, aircraft manufacturers and aerospace companies, and the U.S. government.

You’ll graduate with the skill set that employers demand in today’s increasingly complex airline industry.

†Graduates wishing to attain certification must take and pass any applicable tests/exams.
The Program
Airframe and Powerplant (A&P)
Associate of Occupational Studies in 18 months
Certified by the Federal Aviation Administration (FAA)
Become an A&P technician and keep airplanes in safe flying condition – servicing, repairing and overhauling aircraft components.
Instructors with industry expertise will mentor you in hands-on labs in three separate hangars, using industry-relevant equipment including:
• two Rolls-Royce RB 211-22B turbine engines
• three Cessna 172s
• a LearJet 24D
• more than 80 aircraft engines
We will also guide you in courses designed to ensure your success in A&P, such as:
• Aviation Maintenance Practices
• Hydraulic and Landing Gear
• Aircraft Flight Control
• Aviation Science
Plus, we’ll help prepare you for FAA certification*, which qualifies you to work for major airlines, aircraft manufacturers and aerospace companies, and the U.S. government.
You’ll graduate with the skill set that employers demand in today’s increasingly complex airline industry.

*Graduates wishing to attain certification must take and pass any applicable tests/exams

Career Outlook
Opportunities appear favorable through 2022 for aircraft mechanics that complete FAA-approved training programs, thanks to:
• an increase in passenger air traffic
• a need to replace mechanics expected to retire in coming years
• a shortage of A&P college graduates
Job opportunities will be best at small commuter and regional airlines – the fastest-growing segment in air transportation, as well as in FAA repair stations.*


Typical Entry-Level Position for Redstone Graduates
Airframe and Powerplant Technician
For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website at http://www.redstone.edu/disclosures

The Department of Labor lists the following as potential careers for graduates of this program.†
Standard Occupation Code (SOC)
49-2091 Avionics technicians
49-3011 Aircraft mechanics and service technicians
To see descriptions of these occupations, go to www.onetonline.org and enter the six-digit Standard Occupational Code (SOC) in the occupational search area.

†This list is based on Department of Education standards. Actual entry-level jobs for graduates in this program may vary from this list. The six-digit codes were selected from a SOC-CIP (O*Net) crosswalk as of 5/8/15. Although this Department of Education standard requires graduates to be listed, Redstone College has not found the program to prepare graduates for all listed careers.

Career Profile
Looking for an in-demand career path that lets you work with your hands? Become an airframe and powerplant technician and keep airplanes in safe flying condition.
You’ll be trained to service, repair and overhaul an array of aircraft components and systems, with opportunities for work and career advancement almost anywhere in the U.S.
Redstone graduates can enter a variety of sectors within the aviation industry:
• general aviation
• military contracting
• fixed-base operations (FBO’s)
• manufacturing
• maintenance for flight training schools
• helicopter companies
• oil and gas
Experienced A&P’s with FAA certification and administrative ability can even be selected for supervisory and executive positions or to become designated FAA inspectors.
WHY REDSTONE? Since 1965, more than 15,000 Redstone College students have become skilled, in-demand graduates, thanks to an education formula designed for success:

- faculty with industry experience
- hands-on training
- career-focused education
- industry relationships
- career assistance
- tuition-free alumni retraining (books, tools, lab fees may apply)
- flexible scheduling
- preparation for industry certification exams*
- financial assistance†
- no-cost tutoring
- Snap-on® tool kit

*Graduates wishing to attain certification must take and pass any applicable tests/exams
†Available to those who qualify

Real-Job Training. Real-Job Rewards.

Start building your career today!
Call 877-337-8525 or visit us online at redstone.edu.
If you're a high school student, please call 888-748-0010

Broomfield Campus
10851 West 120th Avenue, Broomfield, Colorado 80021

Westminster Campus
1865 West 121st Ave, Suite 100C, Westminster, Colorado 80234

AIRFRAME AND POWERPLANT PROGRAM (A&P)
MAKE YOUR FUTURE FLY-HIGH.

Real-Job Training. Real-Job Rewards.

Redstone uses Snap-on tools. Specific Snap-on tools vary depending on program requirements.
AIRFRAME AND POWERPLANT (A&P) COURSES
Associate of Occupational Studies in 18 Months

The Redstone College Airframe and Powerplant Program consists of 18 months of courses.

Listed below is the course curriculum:

**AF121 – Metallic Structures**
150 Clock Hours / 9.15 Quarter Credit Hours
In this course, aircraft sheet metal structures and different fastening methods are studied in detail. Students will accomplish a wide variety of lab projects leading to a high degree of understanding of subject material. Upon successful completion of this course, students will be able to perform all basic tasks required of an aircraft maintenance technician related to metallic structures.

**AF122 – Non-Metallic Structures**
150 Clock Hours / 9.33 Quarter Credit Hours
Students in this course will learn about composite structures including fiberglass, Kevlar, various core materials, and Plexiglass. Extensive lab work will enhance learned objectives. Also covered in this class are wood structures, fabric coverings, and aircraft finishes. Upon successful completion of this class, students should be able to accomplish aircraft composite structure work, and be able to explain aircraft wood and fabric. Students should also be able to apply the finish to an aircraft.

**AF123 – Aircraft Electrical**
150 Clock Hours / 11.35 Quarter Credit Hours
This course provides an in-depth study of airframe electrical systems including inspection and repair of components and related wiring, power distribution, and circuit troubleshooting. This course includes a detailed study of airframe electrical schematics, and their application and troubleshooting. This course also covers the study of various aircraft fire protection, detection, and extinguishing systems. Upon successful completion of this course, students should be able to troubleshoot and repair airframe electrical systems, know how to read and apply electrical schematics, and understand the operation and repair of aircraft fire protection systems.

**AF124 – Hydraulics and Landing Gear**
150 Clock Hours / 11.63 Quarter Credit Hours
The theory, operation, and maintenance of aircraft hydraulic and pneumatic systems are covered in detail. The troubleshooting, maintenance, and repair of both systems is stressed. Aircraft landing gears, including retraction systems, oleos, brakes, wheels, and tires are also studied. This course also includes an in-depth study of aircraft ice and rain systems, and covers the specific requirements of airframe non-destructive testing. Upon successful completion of this course, students should be able to troubleshoot and repair aircraft hydraulic and pneumatic systems, aircraft landing gears, understand the concepts of aircraft ice and rain systems, and know the specific requirements of airframe nondestructive testing.
AF125 – Aircraft Instrumentation
150 Clock Hours / 13.60 Quarter Credit Hours
This class covers the theory, operation, and maintenance of aircraft communication and navigation systems and an in-depth study of the wide range of aircraft instrument systems found in today's aircraft. In addition, this class also provides an in-depth study of the theory, operation, inspection, servicing, and troubleshooting of aircraft oxygen, pressurization, heating, and air conditioning systems. This course also covers aircraft position and warning systems, as well as a review of human factors related to airframe systems. Upon successful completion of this course, students should be able to explain the operation and maintenance of aircraft communication, navigation, and instrument systems, be able to explain the theory and concepts of an aircraft cabin atmosphere control system, and know basic concepts of position and warning systems.

AF126 – Aircraft Flight Controls
150 Clock Hours / 10.65 Quarter Credit Hours
This class covers aircraft control surfaces including system rigging, maintenance, inspection, and troubleshooting. Aircraft fuel system theory, maintenance, and troubleshooting are also discussed, as well as the basic concepts of welding. This course also covers the basic concepts of rotary wing maintenance and operations. Upon successful completion of this course, students should be able to rig a general aviation aircraft, maintain an aircraft fuel system, be able to perform basic welding processes, and know the basic concepts of rotary wing aircraft.

GN111 – Aviation Science
150 Clock Hours / 11.35 Quarter Credit Hours
This course develops skills needed in basic mathematics and algebra to calculate aircraft weight and balance as well as other calculations needed to perform aircraft maintenance. Proper use of a calculator is stressed. Course covers a detailed study of aircraft weight and balance, including the actual weighing of an aircraft. Basic physics concepts including motion, fluid dynamics, heat, sound, and aerodynamics are also covered. This class also incorporates ground operations and servicing with several different lab projects. Upon successful completion of this course, students will be able to perform basic ground operations and servicing of aircraft, weigh aircraft and perform all calculations, be able to explain physics concepts as related to aircraft, and apply mathematical concepts to various aircraft requirements.

GN112 – Basic Electricity
150 Clock Hours / 11.35 Quarter Credit Hours
A study of the laws and theory of electricity and its application to aircraft systems, components, and circuits are covered in this class. Magnetism, batteries, DC circuits, AC circuits, and multimeters, including circuit troubleshooting are explained and applied in detail. Several different lab projects aid in understanding of concepts. Also included in this course is the study of electrical schematics and their application to aircraft. Upon successful completion of this course, students should have a sound foundation of electrical theory and its application to aircraft systems and components, as well know how to read and apply basic electrical schematics to aircraft.

GN113 – Aviation Maintenance Practices
150 Clock Hours / 11.40 Quarter Credit Hours
This course covers seven different topics, including cleaning and corrosion control, a detailed study of aviation materials and processes, maintenance publications, maintenance forms and records, fluid lines and fittings, aircraft drawings, and mechanic privileges and limitations. Lab projects for all seven topics enhance classroom lecture. Also included in this course is the first of a four-part introduction to human factors in aviation. Upon successful completion of this course, students will be able to complete aircraft forms and records, know how to use maintenance publications, be able to identify specific aircraft hardware, know what to look for when inspecting an aircraft for corrosion, be able to construct an aircraft tube and hose, be able to read and make basic aircraft drawings, and be aware of mechanic privileges and limitations.

PP131 – Reciprocating Engine Theory
150 Clock Hours / 10.28 Quarter Credit Hours
This course covers the theory and operation of a reciprocating engine. All internal components are studied, along with how each part functions. A reciprocating engine is disassembled, measured, reassembled, and timed. A reciprocating engine is removed and reinstalled. This course also includes the study of induction and engine airflow systems, engine cooling systems, and reciprocating engine exhaust systems. Upon completion of this course, students should be able to explain the operation of a reciprocating engine, as well as engine induction, cooling, and exhaust systems, and be able to remove and reinstall an aircraft reciprocating engine.

PP132 – Reciprocating Engine Systems
150 Clock Hours / 10.90 Quarter Credit Hours
In this course, reciprocating engine ignition systems including magnetos, spark plugs, leads, and auxiliary starting systems are covered in detail. A magneto is disassembled, inspected, reassembled, and timed. Reciprocating engine instrument systems are discussed, along with an in-depth study of engine electrical and engine fuel systems. The reciprocating engine lubrication system is studied in detail. Upon successful completion of this course, students should be able to troubleshoot, repair, and time an aircraft magneto, explain engine instrument, engine electrical, and engine fuel systems, and understand a reciprocating engine lubrication system.
PP133 – Fuel Metering and Propellers
150 Clock Hours / 12.20 Quarter Credit Hours
In this class, students study the theory and operation of a wide variety of propellers and controlling governors. Reciprocating engine fuel metering devices including float carburetors and fuel injection systems are explained in detail. Upon completion of this class, students should understand all propeller operation and inspection requirements, and be able to troubleshoot and repair reciprocating engine fuel metering devices.

PP134 – Turbine Engine Theory
150 Clock Hours / 11.30 Quarter Credit Hours
This course covers an in-depth study of turbine engine theory of operation, inspection requirements and techniques, and troubleshooting of malfunctions. Several different lab projects enhance lessons learned in the classroom. Also covered is a study of turbine engine exhaust and reverser systems, and unducted fans. Course also includes a review of powerplant human factors. Upon successful completion of this class, students should be able to explain the theory of operation, inspection, and maintenance requirements of turbine engines, and be able to troubleshoot and repair turbine engine exhaust and reverser systems.

PP135 – Turbine Engine Systems
150 Clock Hours / 10.68 Quarter Credit Hours
This course covers eight different topics including turbine engine lubrication systems, fuel metering, ignition and starting, engine instrument, as well as an in-depth study of auxiliary power units. Also included in this class are techniques for turbine engine inspections as well as the study of engine fire protection systems. A wide variety of lab projects enhance learning of class lessons. Upon successful completion of this course, students should be able to explain the operation and troubleshoot turbine engine lubrication, fuel metering, ignition and starting, engine instruments, as well as auxiliary power units, and engine fire protection systems.

TR140 – Inspection, Test and Review
150 Clock Hours / 12.75 Quarter Credit Hours
Students will perform an aircraft inspection using FAA records and manufacturer’s publications and manuals. Course also includes an in-depth review of human factors and their applicability to general, airframe, and powerplant systems. A topics review of selected program subjects will be conducted. Students will complete A&P program final exams with a minimum passing score of 80% on each test.