Welcome to Redstone College
The faculty, staff, and administration of Redstone College are excited to have you join the Redstone community. We pledge to match the investment of time and energy you will make as you prepare for your chosen career with our own commitment to customer service and a quality education. You will find that all of us at Redstone are focused on your success as a student and as a graduate of Redstone. We applaud you for recognizing the value of the hands-on approach to learning offered by Redstone College, and we believe you will be pleased with your experiences at Redstone.

Welcome!

Dean Gouin
Chief Executive Officer

REDSTONE COLLEGE ADMINISTRATION
Dean Gouin – Alta Colleges Chief Executive Officer
Norm Blome – Alta Colleges Chief Compliance Officer
Dessa Bokides – Alta Colleges Chief Financial Officer
Bill Ojile – Alta Colleges Chief Legal and Administrative Officer
Lou Pagano – Alta Colleges Chief Operating and Academic Officer
Sue Wierenga – Alta Colleges Chief Information Officer
Rick Yaconis – Alta Colleges President and Chief Marketing Officer
Glenn Wilson – Redstone Campus President
Tim Guerrero – Redstone Campus Academic Dean
Kimberly Stromire – Redstone Director of Campus Operations
Tim Braa – Redstone AV Program Chair
Ray Garcia – Redstone A&P Program Chair
John Lamorie – Redstone WET Program Chair
Ismail Fikir – Redstone HVAC Program Chair
Nicholas Brown – Redstone Assistant Director of Student Services
Cate Clark – Redstone Senior Director of Admissions
Travis Comstedt – Redstone Business Office Coordinator
Kayla Decker – Redstone Assistant Director of Student Finance
Vicki Middeker – Redstone Senior Registrar
Timothea Sampson – Redstone Executive Assistant
Denise Lord – Redstone Denver Campus Librarian
Julie Klauss – Redstone Denver East Campus Librarian
Steve Youngs – Redstone Maintenance Supervisor
HISTORY OF THE COLLEGE
Redstone College was founded in 1965 to offer airframe and powerplant training, and in 1989 expanded its curriculum to include avionics training. In 2005, the curriculum was expanded further to include heating/ventilation/air conditioning, and in August 2010, the Wind Energy Technology program was introduced. New programs in Electronics Technology, Energy Technologies and Industrial Automation were introduced in August 2014.

In 2012, an additional location was added to Redstone College and was named Redstone College – Denver East, located at 7350 North Broadway, Denver, CO 80221.

MISSION STATEMENT
Redstone College is dedicated to providing quality skill-based certificate and degree programs that provide students with the knowledge, skills and credentials needed to launch, enhance, or change careers.

By providing training and education based on industry standards, the college offers students the quality education, training and service that students need and industry expects. By teaching students the skills and knowledge needed by industry and the work behaviors expected by employers, Redstone empowers students to successfully pursue their individual career goals. By serving a diverse, multicultural body of students, Redstone promotes teamwork, student pride, and respect for self and others.

ALUMNI RETRAINING
In support of Redstone’s mission and to encourage lifelong learning, all Redstone graduates are entitled to participate in the Redstone alumni retraining program. Subject to space availability, students who meet the graduation requirements listed in the ACADEMICS sections of this catalog can:

- Audit a class they have already taken
- Take an updated course
- Learn about new equipment/software

There is no tuition charge for qualified graduates who participate in the Redstone alumni retraining program; however, retraining is limited to the program from which the student graduated. Please see the campus education department for more information.

STATEMENT ON DIVERSITY
Redstone College is committed to serving a diverse multicultural body of students in an atmosphere that promotes pride, respect, and teamwork. In order to offer quality, career-focused programs that meet the diverse needs of different communities and different people, the college will provide a learning climate that recognizes the richness of diverse thinking, the value of alternative perspectives, and the importance of respect for oneself and others.

The college commits to addressing the individual needs of Redstone students from diverse backgrounds and with differing career choices. Redstone will strive to provide its students broad access to a variety of career-focused, appealing programs that will assist them in launching, enhancing, or changing careers.

To the campus and campus community, Redstone commits to recruit an experienced and qualified faculty and staff who are reflective of the infinitely varied human talent available. The college recognizes the unique nature of its campus community, particularly its workforce needs, and its connection to the community through employment opportunities and student enrollment.
RIGHTS OF THE COLLEGE
Redstone College reserves the right to make changes at any time to any terms of this catalog, including, but not limited to, policies, procedures, academic programs and courses, faculty and administrative staff, the academic calendar, and the amount of tuition and fees. Redstone College also reserves the right to make changes in equipment and instructional materials, to modify curriculum, or to cancel classes.

PROGRAM ADVISORY COMMITTEES
To uphold its commitment to high-quality, career-oriented education and training and to maximize the employability of its graduates, Redstone College has established program advisory committees for each career program.

PACs are comprised of industry members who formally meet annually with Redstone College’s staff and faculty, and who may be called on as needed to make recommendations to the college regarding curriculum changes, equipment purchases, or program enrichment.

FACILITIES
Redstone College – Denver
10851 West 120th Avenue
Broomfield, CO 80021-3401
Telephone: 303-466-1714

Redstone College – Denver East
7350 North Broadway
Denver, CO 80221

The facilities at Redstone College are designed to provide students with an environment that stimulates learning. The college campus consists of multiple buildings that house specialized shops and labs for hands-on training. The classrooms are well-lit, air-conditioned, and furnished with audio/visual equipment and specialized training aids.

Redstone College’s shops and laboratories are clean, well-organized, and designed to be efficient. To assist students with their career choices, the career services center includes a multitude of career-related resources specific to each program. The bookstore offers basic school supplies, textbooks, and tools.

For a complete description of the classrooms and laboratories for each program, please refer to the individual program descriptions in this catalog.

ACCREDITATIONS AND AFFILIATIONS
Redstone College is accredited by the Accrediting Council for Independent Colleges and Schools (ACICS) to award associate of occupational studies degree, diplomas and certificates.

Redstone College is a wholly-owned entity of Paris Management Company, which is a wholly-owned subsidiary of Alta Colleges, Inc.

LICENSES, PERMITS, REGISTRATIONS
Redstone College is a private institution approved and regulated by the Colorado Department of Higher Education Private Occupational School Board.

Redstone College has received a Certificate of Approval to Operate issued by the following states:

- Illinois State Board of Education
  100 North First Street
  Springfield, IL 62777
- Private & Out-of-State Postsecondary Education
  Kansas Board of Regents
  1000 SW Jackson, Suite 520
  Topeka, KS 66612
  Telephone: 785-296-4917
- Missouri Coordinating Board for Higher Education
  Jefferson City, MO 65102
  Telephone: 573-751-2361
  Fax: 573-751-2361
  Website: www.dhe.mo.gov
- New Mexico Department of Higher Education
  2048 Galisteo Street
  Santa Fe, NM 87505-2100
  Telephone: 505-476-8400
  Website: www.hed.state.nm.us/complaint_3.aspx
- Ohio Board of Proprietary School Registration
  35 E. Gay Street, #403
  Columbus, OH 43215
  Telephone: 614-466-2752
- Texas Workforce Commission
  Career Schools and Colleges Section
  101 East 15th Street
  Austin, TX 78778
  Telephone: 512-936-3100
- Wyoming Department of Education
  2300 Capitol Avenue
  Hathaway Building, 2nd Floor
  Cheyenne, WY 82002

AGENCIES
Students should contact the campus student finance and/or admissions departments for the most recent information regarding the agency programs listed below:

- Bureau of Indian Affairs
- Workforce Investment Act (formerly known as JTPA)
- Immigration and Naturalization Service for Nonimmigrant Alien Students
- National Vocational Rehabilitation Act of 1920
- State Employment Training and Workman's Compensation programs
- NAFTA retraining programs

Redstone College is approved for veteran's education benefits by the Colorado Office of Veterans Education and Training. All programs offered by the school meet the requirements of federal or state laws regarding student financial assistance. Redstone is authorized by licenses, permits, registrations, or exemptions to recruit students in Colorado.

**ADDENDUM**

Please note that the catalog is not considered complete unless the appropriate addenda (if applicable) are included. An addendum may include items such as tuition, book costs, charges, and specific state requirements not mentioned in the catalog. Although every effort has been made to ensure the accuracy of information included in this catalog, revisions may occur after publication. Please refer to the catalog addendum for more information.

**Please note:** The programs in this catalog have not been approved by the Texas Higher Education Coordinating Board. Redstone College does not possess a certificate of authority from the Texas Higher Education Coordinating Board to award associate degrees and Redstone College cannot guarantee that credits earned at this institution, or in any subsequent, established degree program, or the degree itself, will be transferable to an institution of higher education in the state of Texas.

**PROGRAM DEFINITIONS**

Redstone College offers both technical and aviation programs. The Avionics program (AV), the Heating/Ventilation/Air Conditioning program (HVAC), the Electronics Technology program (ET), the Energy Technologies program (ENT), the Industrial Automation program (IA), and the Wind Energy Technology program (WET) are referred to as technical programs. The Airframe and Powerplant program (A&P) is the school's sole aviation program.
ACADEMIC CALENDAR 2014-2015

Redstone College may change or modify the academic calendar at any time.

**CALENDAR FOR ALL AV, ET, ENT, HVAC, IA, and WET STUDENTS**

### AUGUST 2014 COURSE
- **Start Date:** August 6
- **Break Day:** September 1
- **End Date:** October 8
- **Graduation Ceremony:** October 9

### OCTOBER 2014 COURSE
- **Start Date:** October 14
- **Break Days:** November 11, November 26 to 28
- **End Date:** December 19
- **Graduation Ceremony:** December 22

### JANUARY 2015 COURSE
- **Start Date:** January 6
- **Break Day:** January 19
- **End Date:** March 10
- **Graduation Ceremony:** TBD

### MARCH 2015 COURSE
- **Start Date:** March 16
- **End Date:** May 15
- **Graduation Ceremony:** TBD

### MAY 2015 COURSE
- **Start Date:** May 21
- **Break Days:** May 25, July 3
- **End Date:** July 24
- **Graduation Ceremony:** TBD

### AUGUST 2015 COURSE
- **Start Date:** August 6
- **Break Day:** September 7
- **End Date:** October 8
- **Graduation Ceremony:** TBD

### OCTOBER 2015 COURSE
- **Start Date:** October 14
- **Break Days:** November 25 to 27
- **End Date:** December 18
- **Graduation Ceremony:** TBD
### CALENDAR FOR A&P DAY STUDENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Start Date</th>
<th>Break Days</th>
<th>End Date</th>
<th>Graduation Ceremony</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUGUST 2014 COURSE</td>
<td>August 6</td>
<td>September 1</td>
<td>September 5</td>
<td>September 16</td>
</tr>
<tr>
<td>SEPTEMBER 2014 COURSE</td>
<td>September 9</td>
<td>October 8</td>
<td>September 5</td>
<td>September 16</td>
</tr>
<tr>
<td>OCTOBER 2014 COURSE</td>
<td>October 14</td>
<td>November 11</td>
<td>November 13</td>
<td>November 18</td>
</tr>
<tr>
<td>NOVEMBER 2014 COURSE</td>
<td>November 17</td>
<td>November 26 to 28</td>
<td>December 19</td>
<td>December 22</td>
</tr>
<tr>
<td>JANUARY 2015 COURSE</td>
<td>January 6</td>
<td>January 19</td>
<td>February 5</td>
<td>TBD</td>
</tr>
<tr>
<td>JUNE 2015 COURSE</td>
<td>June 24</td>
<td>July 3</td>
<td>July 24</td>
<td>TBD</td>
</tr>
</tbody>
</table>

### CALENDAR FOR A&P NIGHT STUDENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Start Date</th>
<th>Break Days</th>
<th>End Date</th>
<th>Graduation Ceremony</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUGUST 2014 COURSE</td>
<td>August 15</td>
<td>September 1</td>
<td>September 24</td>
<td>TBD</td>
</tr>
<tr>
<td>SEPTEMBER 2014 COURSE</td>
<td>September 26</td>
<td>November 4</td>
<td>November 18</td>
<td>TBD</td>
</tr>
<tr>
<td>NOVEMBER 2014 COURSE</td>
<td>November 6</td>
<td>November 26 to 28</td>
<td>December 19</td>
<td>December 22</td>
</tr>
<tr>
<td>JANUARY 2015 COURSE</td>
<td>January 6</td>
<td>January 19</td>
<td>February 13</td>
<td>TBD</td>
</tr>
<tr>
<td>JUNE 2015 COURSE</td>
<td>June 22</td>
<td>July 3</td>
<td>August 11</td>
<td>TBD</td>
</tr>
</tbody>
</table>
AIRFRAME AND POWERPLANT (A&P)*

ASSOCIATE OF OCCUPATIONAL STUDIES
DAY SHIFT: 18 months
NIGHT SHIFT: 23 months
CLOCK HOURS: 2,250

PROGRAM TIMING
Day shift program:
- Each class is 22 days in length, five days per week
- Classes begin at 7:30 a.m. and end at 3 p.m.
Night shift program:
- Each class is 28 days in length, five days per week
- Classes begin at 5:30 p.m. and end at 10:52 p.m.

The Airframe and Powerplant program is designed to be completed in 18 months if taking courses during the day or 23 months if taking courses at night. Once enrolled, students wishing to switch from the night program to the day program or vice versa will be required to wait for the next available start date, which could prolong the length of time needed to complete the program.

PROGRAM DESCRIPTION
The Redstone College Airframe and Powerplant program is fully certified by the Federal Aviation Administration (FAA) and meets all requirements of 14CFP Part 147. Each class covers part of the specific General, Airframe, or Powerplant requirements detailed in Part 147. Focused classroom lectures, coupled with hands-on lab projects, lead to a thorough understanding of all class topics. Students are graded on a 0 to 100 percentile scale and a grade of 70 percent is considered passing, except for the school final exams given in the TR140 Inspection, Test, and Review class, where an 80 percent minimum score is required.

PROGRAM OUTCOMES
Upon successful completion of the Airframe and Powerplant program, students should be able to:
- Apply weight and balance concepts, read and use aircraft drawings, and understand basic aviation physics
- Understand and apply the fundamental concepts of DC and AC electronic circuits
- Inspect and fabricate aircraft hoses and lines and use aircraft forms, records, and publications
- Identify and properly select aircraft hardware and inspection method
- Rig an aircraft and understand aircraft hydraulic and landing gear systems
- Explain the operation of aircraft communication, navigation, and instrument systems
- Maintain aircraft pressurization and oxygen systems
- Fabricate and repair aircraft metallic structures using different materials and fastening methods
- Know how to inspect and repair composite aircraft structures and how to apply aircraft finishes
- Troubleshoot and repair aircraft and engine electrical components and systems
- Perform all maintenance and troubleshooting on an aircraft reciprocating engine
- Maintain reciprocating engine ignition, fuel metering, instrument, and lubrication systems
- Perform maintenance and troubleshooting on aircraft propellers
- Understand the principles of operation of an aircraft turbine engine and how to inspect and maintain a turbine engine and components
- Understand turbine engine fuel metering, lubrication, ignition, and exhaust
- Perform an aircraft inspection, including records checks

LABORATORIES AND EQUIPMENT
Labs and equipment used in the A&P program are used to lead to an understanding of the class lessons presented. The college has specialized labs for basic electricity, metallic structures, non-metallic structures, hydraulics, welding, reciprocating engines, and turbine engines. Special tools and test equipment, including rivet guns, hot bonding machines, borescopes, aircraft digital scales, micrometers and calipers, and a variety of operational engines are used during required phases of training. In addition, the college possesses several different aircraft used for training, including the several Cessna 172s, a Beechcraft Bonanza, and a Lear Jet model 24D.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AF121</td>
<td>Metallic Structures</td>
<td>150</td>
</tr>
<tr>
<td>AF122</td>
<td>Non-Metallic Structures</td>
<td>150</td>
</tr>
<tr>
<td>AF123</td>
<td>Aircraft Electrical</td>
<td>150</td>
</tr>
<tr>
<td>AF124</td>
<td>Hydraulics and Landing Gear</td>
<td>150</td>
</tr>
<tr>
<td>AF125</td>
<td>Aircraft Instrumentation</td>
<td>150</td>
</tr>
<tr>
<td>AF126</td>
<td>Aircraft Flight Controls</td>
<td>150</td>
</tr>
<tr>
<td>GN111</td>
<td>Aviation Science</td>
<td>150</td>
</tr>
<tr>
<td>GN112</td>
<td>Basic Electricity</td>
<td>150</td>
</tr>
<tr>
<td>GN113</td>
<td>Aviation Maintenance Practices</td>
<td>150</td>
</tr>
<tr>
<td>PP131</td>
<td>Reciprocating Engine Theory</td>
<td>150</td>
</tr>
<tr>
<td>PP132</td>
<td>Reciprocating Engine Systems</td>
<td>150</td>
</tr>
<tr>
<td>PP133</td>
<td>Fuel Metering and Propellers</td>
<td>150</td>
</tr>
<tr>
<td>PP134</td>
<td>Turbine Engine Theory</td>
<td>150</td>
</tr>
<tr>
<td>PP135</td>
<td>Turbine Engine Systems</td>
<td>150</td>
</tr>
<tr>
<td>TR140</td>
<td>Inspection, Test, and Review</td>
<td>150</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CLOCK HOURS 2,250

Note: Courses may be taught in a sequence that differs from the order represented above.

Due to current FAA regulations, Redstone College cannot guarantee transferability of credits between the Airframe and Powerplant and the Avionics programs.

*This program is offered at the Redstone College – Denver campus only.
AVIONICS (AV)*

ASSOCIATE OF OCCUPATIONAL STUDIES
DAY SESSION: 15 months (six terms)
EVENING SESSION: Not offered
CREDIT HOURS: 90.0

COURSE REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>72.0</td>
</tr>
<tr>
<td>Applied General Education</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>90.0</td>
</tr>
</tbody>
</table>

PROGRAM DESCRIPTION
The Avionics curriculum is divided into 16 classes over six terms. Each class covers a specific concept of electronics or avionics maintenance and repair. The six “EL” classes in the program cover foundational principles and concepts of electronics. Instruction consists of theory of electronics and electronic components, use of specialized test equipment, advanced troubleshooting, as well as soldering skills. The six “AV” classes focus on the advanced electronics and avionics systems found in the aviation industry. This portion of the program includes component-level troubleshooting, avionics system troubleshooting, and advanced wiring techniques. Students will complete four applied general education courses to complete their program.

PROGRAM OUTCOMES
Upon successful completion of the program, students should be able to:
- Analyze DC and AC electronic circuits with components
- Troubleshoot a circuit using test equipment
- Explain solid state theory, apply concepts of digital electronics, and know how motors and generators are used in circuits
- Apply appropriate troubleshooting techniques to a circuit using test equipment
- Follow mathematical formulas to test and modify circuits
- Analyze circuits with components such as resistors, capacitors, relays, inductors, and switches
- Apply concepts of digital electronics, including gates, flipflops, counters, shift registers, and micro-processor theory
- Understand AM and FM modulation along with phase modulation
- Describe the basic concepts of aircraft systems, including hydraulics, fuel quantity, pitot-static, fire protection, environmental and aircraft power generation
- Understand and troubleshoot flight control and autopilot systems
- Use advanced wiring tools and techniques

LABORATORIES AND EQUIPMENT
Labs and equipment used in the program have been selected from companies that set the standards in their field, including HP, Honeywell, Collins, King, Pace, IFR, Aspen, Dynon, and Barfield. To teach fundamentals, the program uses electronic trainers from BK Precision, Lab-Volt, Snap-On, Tektronix, Garmin, Michel, and Linaire.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV121</td>
<td>Communication Theory</td>
<td>6.0</td>
</tr>
<tr>
<td>AV122</td>
<td>Wiring I</td>
<td>4.0</td>
</tr>
<tr>
<td>AV123</td>
<td>Wiring II</td>
<td>6.0</td>
</tr>
<tr>
<td>AV124</td>
<td>Communication and Navigation Systems</td>
<td>9.0</td>
</tr>
<tr>
<td>AV125</td>
<td>Gyroscopes and Autopilot Systems</td>
<td>6.0</td>
</tr>
<tr>
<td>AV126</td>
<td>Pulse Microwave Systems</td>
<td>9.0</td>
</tr>
<tr>
<td>EL121</td>
<td>DC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL122</td>
<td>AC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL123</td>
<td>Solid State Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL124</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>EL125</td>
<td>Instrumentation and Control</td>
<td>4.0</td>
</tr>
<tr>
<td>EL126</td>
<td>Troubleshooting Techniques</td>
<td>6.0</td>
</tr>
<tr>
<td>ENG118</td>
<td>Business Writing</td>
<td>4.5</td>
</tr>
<tr>
<td>MTH118</td>
<td>Applied Mathematics</td>
<td>4.5</td>
</tr>
<tr>
<td>PHY118</td>
<td>Physical Science</td>
<td>4.5</td>
</tr>
<tr>
<td>SOC118</td>
<td>Human/Customer Relations</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 90.0

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver East campus only.
ELECTRONICS TECHNOLOGY* (ET)

ASSOCIATE OF OCCUPATIONAL STUDIES
PROGRAM LENGTH: 15 months (six terms)
CREDIT HOURS: 90.0

COURSE REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>72.0</td>
</tr>
<tr>
<td>Applied General Education</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>90.0</td>
</tr>
</tbody>
</table>

PROGRAM DESCRIPTION
The college's Electronics Technology curriculum is divided into 18 classes over six terms. The six “EL” classes in the program cover foundational principles and concepts of electronics. Instruction consists of theory of electronics and electronic components, use of specialized test equipment, advanced troubleshooting, as well as soldering skills. The six “ET” classes focus on specific topics within the electronics and communication field, including PLCs, network and wireless communications, and industrial wiring and schematics. Also included is a safety course where students can earn their OSHA 30-hour General Industry certification as well as receive their climb safety certification. Students will complete four applied general education courses as well as two concept courses to complete their program.

PROGRAM OBJECTIVES
Upon successful completion of the Electronics Technology program, students should be able to:

- Demonstrate the competence in the fundamental concepts of DC and AC electronic circuits, analyze circuits with components, and troubleshoot a circuit using test equipment
- Explain solid state theory, apply concepts of digital electronics, and know how motors and generators are used in circuits
- Apply appropriate troubleshooting techniques to a circuit using test equipment
- Demonstrate an understanding of Programmable Logic Controllers, their programming, and their application
- Demonstrate an understanding of both network and wireless communications
- Apply concepts of industrial wiring and schematics to industrial circuits
- Apply the safety concepts presented in the OSHA 30-hour general industry training

LABORATORIES AND EQUIPMENT
Labs and equipment used in the program have been selected from companies that set the standards in their field. To teach fundamentals, the program uses electronic trainers from BK Precision, Lab-Volt, Snap-On, Tektronix, Michel, and Linaire. Additional trainers will be used for labs focused on wireless and network communications, PLCs, and industrial wiring and schematics.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUC118</td>
<td>Business Concepts</td>
<td>4.5</td>
</tr>
<tr>
<td>COM118</td>
<td>Computer Concepts</td>
<td>4.5</td>
</tr>
<tr>
<td>EL121</td>
<td>DC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL122</td>
<td>AC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL123</td>
<td>Solid State Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL124</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>EL125</td>
<td>Instrumentation and Control</td>
<td>4.0</td>
</tr>
<tr>
<td>EL126</td>
<td>Troubleshooting Techniques</td>
<td>6.0</td>
</tr>
<tr>
<td>ET124</td>
<td>Programmable Logic Controllers</td>
<td>6.0</td>
</tr>
<tr>
<td>ET127</td>
<td>Network Communications</td>
<td>6.0</td>
</tr>
<tr>
<td>ET128</td>
<td>Digital Electronics II</td>
<td>4.0</td>
</tr>
<tr>
<td>ET129</td>
<td>Wireless Communication</td>
<td>4.0</td>
</tr>
<tr>
<td>ET133</td>
<td>Industrial Wiring and Schematics</td>
<td>6.0</td>
</tr>
<tr>
<td>ET134</td>
<td>Safety</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPLIED GENERAL EDUCATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG118</td>
<td>Business Writing</td>
<td>4.5</td>
</tr>
<tr>
<td>MTH118</td>
<td>Applied Mathematics</td>
<td>4.5</td>
</tr>
<tr>
<td>PHY118</td>
<td>Physical Science</td>
<td>4.5</td>
</tr>
<tr>
<td>SOC118</td>
<td>Human/Customer Relations</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDIT HOURS</td>
<td>90.0</td>
<td></td>
</tr>
</tbody>
</table>

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver East campus only.
ENERGY TECHNOLOGIES* (ENT)

ASSOCIATE OF OCCUPATIONAL STUDIES
PROGRAM LENGTH: 15 months (six terms)
CREDIT HOURS: 90.0

COURSE REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>72.0</td>
</tr>
<tr>
<td>Applied General Education</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>90.0</td>
</tr>
</tbody>
</table>

PROGRAM DESCRIPTION
The college’s Energy Technologies program curriculum is divided into 18 classes taken over six terms. The “EL” classes focus on the basic concepts of electronics, including DC and AC circuits, and solid state theory. The subject material in the “ET” classes provides foundational lessons on motors and generators, PLCs and safety, including climb training with a certification and OSHA 30-hour general industry training also with a certification. The remaining classes focus on detailed principles, systems, concepts and troubleshooting of wind turbine systems and components. Students will complete four applied general education courses to complete their program.

PROGRAM OBJECTIVES
Upon successful completion of the Energy Technologies program, students should be able to:

- Demonstrate a thorough understanding of AC and DC motors, motor control systems, and motor system diagnostics, as well as the underlying physics of motors
- Describe and apply concepts of power management and power conversion
- Troubleshoot power management controls and interfaces
- Test and troubleshoot energy management instrumentation and software
- Demonstrate a thorough understanding of energy generation and fluid power
- Demonstrate and apply a comprehensive understanding of energy management in oil, natural gas, wind, and solar
- Demonstrate detailed knowledge and troubleshooting techniques for automated equipment used in energy fields
- Apply the safety concepts presented in the OSHA 30-hour general industry training

LABORATORIES AND EQUIPMENT
Labs and equipment used in the program have been selected from companies that set the standards in their field. To teach fundamentals, the program uses electronic trainers from BK Precision, Lab-Volt, Snap-On, Tektronix, Michel, and Linaire. Additional trainers will be used for labs focused on energy management, motors and generators, solar photovoltaics, industrial wiring and schematics, and wind turbine designs.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUC118</td>
<td>Business Concepts</td>
<td>4.5</td>
</tr>
<tr>
<td>COM118</td>
<td>Computer Concepts</td>
<td>4.5</td>
</tr>
<tr>
<td>EL121</td>
<td>DC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL122</td>
<td>AC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL123</td>
<td>Solid State Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL125</td>
<td>Instrumentation and Control</td>
<td>4.0</td>
</tr>
<tr>
<td>EL126</td>
<td>Troubleshooting Techniques</td>
<td>6.0</td>
</tr>
<tr>
<td>ET123</td>
<td>Motors and Generators</td>
<td>4.0</td>
</tr>
<tr>
<td>ET130</td>
<td>Introduction to Energy Management</td>
<td>4.0</td>
</tr>
<tr>
<td>ET133</td>
<td>Industrial Wiring and Schematics</td>
<td>6.0</td>
</tr>
<tr>
<td>ET134</td>
<td>Safety</td>
<td>5.0</td>
</tr>
<tr>
<td>ET135</td>
<td>Mechanical Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ET136</td>
<td>Solar Photovoltaics</td>
<td>6.0</td>
</tr>
<tr>
<td>WN122</td>
<td>Wind Turbine Design</td>
<td>6.0</td>
</tr>
</tbody>
</table>

APPLIED GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG118</td>
<td>Business Writing</td>
<td>4.5</td>
</tr>
<tr>
<td>MTH118</td>
<td>Applied Mathematics</td>
<td>4.5</td>
</tr>
<tr>
<td>PHY118</td>
<td>Physical Science</td>
<td>4.5</td>
</tr>
<tr>
<td>SOC118</td>
<td>Human/Customer Relations</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 90.0

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver East campus only.
HEATING/VENTILATION/AIR CONDITIONING (HVAC)*

ASSOCIATE OF OCCUPATIONAL STUDIES
DAY SESSION: Not offered
EVENING SESSION: Seven terms
CREDIT HOURS: 92.0
CLOCK HOURS: 1,115

PROGRAM DESCRIPTION
The Redstone College Heating/Ventilation/Air Conditioning program offers students hands-on experience with small-, medium- and large-scale heating, air conditioning, and refrigeration systems. Each class offers a balance between lecture and lab to present the lessons in the most concise manner possible. Lectures are in-depth and cover the system theory of both older as well as the latest in HVAC technology. The lab is one of the finest in the world—students train on the latest and most comprehensive systems available today.

PROGRAM OUTCOMES
Upon successful completion of the HVAC program, students should be able to:

- Explain the fundamentals of refrigeration
- Know the principles of heating
- Apply the principles of electrical theory to troubleshoot HVAC problems
- Know how to install a residential heating/air conditioning unit
- Perform preventative maintenance on HVAC systems
- Know how to use special test equipment, including meters and gauges
- Understand the complexities of commercial refrigeration
- Know how to read HVAC system prints and apply to various system designs
- Understand control systems and building automation
- Apply the concepts of hydronic heating
- Understand and troubleshoot heating and cooling concepts to chiller systems
- Value the importance of using standard safety procedures while working with HVAC systems
- Apply basic business concepts

LABORATORIES AND EQUIPMENT
The campus has several classrooms for the presentation of required lectures. The HVAC lab is one of the most complete of any school in the nation. Complete systems from Goodman, Temp Star, Trane, and Carrier allow students to receive the necessary hands-on training leading to thorough understanding. The lab also has commercial systems, including coolers, freezers, and a chiller, as well as a comprehensive controls lab. The students also have access to the student resource center providing access to the Internet.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HV120</td>
<td>Refrigeration and Air Conditioning Fundamentals</td>
<td>6.0</td>
</tr>
<tr>
<td>HV123</td>
<td>Air Duct Calculation and Fabrication</td>
<td>4.0</td>
</tr>
<tr>
<td>HV125</td>
<td>Building Mechanical Codes</td>
<td>4.0</td>
</tr>
<tr>
<td>HV130</td>
<td>Electricity and HVAC Control Systems</td>
<td>12.0</td>
</tr>
<tr>
<td>HV140</td>
<td>Forced Air Gas Heating and Air Conditioning Systems</td>
<td>12.0</td>
</tr>
<tr>
<td>HV150</td>
<td>Advanced Refrigeration</td>
<td>6.0</td>
</tr>
<tr>
<td>HV220</td>
<td>System Design and Heat Load Calculation</td>
<td>4.5</td>
</tr>
<tr>
<td>HV230</td>
<td>HVAC Pneumatic Controls</td>
<td>6.0</td>
</tr>
<tr>
<td>HV235</td>
<td>Supermarket Refrigeration and Ice Machines</td>
<td>6.0</td>
</tr>
<tr>
<td>HV236</td>
<td>Advanced Building Automation Systems</td>
<td>6.0</td>
</tr>
<tr>
<td>HV240</td>
<td>Hot Water and Solar Heat Systems</td>
<td>9.0</td>
</tr>
<tr>
<td>HV250</td>
<td>Chilled Water Systems</td>
<td>6.0</td>
</tr>
<tr>
<td>APM120</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>CA110</td>
<td>Computer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG110</td>
<td>Business Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MTH115</td>
<td>Basic Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC110</td>
<td>Customer Relations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 92.0

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver campus only.
HEATING/VENTILATION/ AIR CONDITIONING (HVAC)*

DIPLOMA PROGRAM
DAY SESSION: Not offered
EVENING SESSION: Four terms
CREDIT HOURS: 50.0
CLOCK HOURS: 605

PROGRAM DESCRIPTION
The Redstone College Heating/Ventilation/Air Conditioning program offers students hands-on experience with small-, medium- and large-scale heating, air conditioning, and refrigeration systems. Each class offers a balance between lecture and lab to present the lessons in the most concise manner possible. Lectures are in-depth and cover the system theory of both older as well as the latest in HVAC technology. The lab is one of the finest in the world—students train on the latest and most comprehensive systems available today.

PROGRAM OUTCOMES
Upon successful completion of the HVAC diploma program, students should be able to:

- Explain the fundamentals of refrigeration
- Know the principles of heating
- Apply the principles of electrical theory to troubleshoot HVAC problems
- Know how to install a residential heating/air conditioning unit
- Perform preventative maintenance on HVAC systems
- Know how to use special test equipment, including meters and gauges
- Understand the complexities of commercial refrigeration

LABORATORIES AND EQUIPMENT
The campus has several classrooms for the presentation of required lectures. The HVAC lab is one of the most complete of any school in the nation. Complete systems from Goodman, Temp Star, Trane, and Carrier allow students to receive the necessary hands-on training leading to thorough understanding. The lab also has commercial systems, including coolers, freezers, and a chiller, as well as a comprehensive controls lab. The students also have access to the student resource center providing access to the Internet.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HV120</td>
<td>Refrigeration and Air Conditioning Fundamentals</td>
<td>6.0</td>
</tr>
<tr>
<td>HV123</td>
<td>Air Duct Calculation and Fabrication</td>
<td>4.0</td>
</tr>
<tr>
<td>HV125</td>
<td>Building Mechanical Codes</td>
<td>4.0</td>
</tr>
<tr>
<td>HV130</td>
<td>Electricity and HVAC Control Systems</td>
<td>12.0</td>
</tr>
<tr>
<td>HV140</td>
<td>Forced Air Gas Heating and Air Conditioning Systems</td>
<td>12.0</td>
</tr>
<tr>
<td>HV150</td>
<td>Advanced Refrigeration</td>
<td>6.0</td>
</tr>
<tr>
<td>HV220</td>
<td>System Design and Heat Load Calculation</td>
<td>4.5</td>
</tr>
<tr>
<td>HV230</td>
<td>HVAC Pneumatic Controls</td>
<td>6.0</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 50.0

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver campus only.
INDUSTRIAL AUTOMATION* (IA)

ASSOCIATE OF OCCUPATIONAL STUDIES
PROGRAM LENGTH: 15 months (six terms)
CREDIT HOURS: 90.0

COURSE REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>72.0</td>
</tr>
<tr>
<td>Applied General Education</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>90.0</td>
</tr>
</tbody>
</table>

PROGRAM DESCRIPTION

The Industrial Automation curriculum is divided into 18 classes over six terms. The six “ET” classes in the program cover foundational principles and concepts of electronics. Instruction consists of theory of electronics and electronic components, use of specialized test equipment, advanced troubleshooting, as well as soldering skills. The subject material in the six “ET” classes focus on industrial wiring and schematics, motors and generators with controls, PLCs, fluid power systems, and robotics. The safety instruction consists of the 30-hour OSHA general industry training with climb safety training, also with a certification. Students will complete four applied general education courses as well as two concept courses to complete their program.

PROGRAM OBJECTIVES

Upon successful completion of the Industrial Automation program, students should be able to:

- Demonstrate the competence in applying the fundamental concepts of DC and AC electronic circuits, analyze circuits with components, and troubleshoot a circuit using test equipment
- Explain solid state theory, apply concepts of digital electronics, and know how motors and generators are used in circuits
- Apply appropriate troubleshooting techniques to a circuit using test equipment
- Analyze circuits with components such as resistors, capacitors, relays, inductors, and switches
- Demonstrate an understanding of industrial equipment by applying knowledge about the relationships between robotics, automation, and complex electrical concepts
- Test and troubleshoot Programmable Logic Controllers (PLCs)
- Demonstrate an understanding of electro-mechanical technology by testing and troubleshooting industrial controls, interfaces, and software
- Apply the safety concepts presented in the OSHA 30-hour general industry training

LABORATORIES AND EQUIPMENT

Labs and equipment used in the program have been selected from companies that set the standards in their field. To teach fundamentals, the program uses electronic trainers from BK Precision, Lab-Volt, Snap-On, Tektronix, Garmin, Michel, and Linaire. Additional trainers will be used for labs focused on industrial wiring and schematics, motors, generators and controls, PLCs, robotics, and fluid power and controls.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUC118</td>
<td>Business Concepts</td>
<td>4.5</td>
</tr>
<tr>
<td>COM118</td>
<td>Computer Concepts</td>
<td>4.5</td>
</tr>
<tr>
<td>EL121</td>
<td>DC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL122</td>
<td>AC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL123</td>
<td>Solid State Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL124</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>EL125</td>
<td>Instrumentation and Control</td>
<td>4.0</td>
</tr>
<tr>
<td>EL126</td>
<td>Troubleshooting Techniques</td>
<td>6.0</td>
</tr>
<tr>
<td>ET123</td>
<td>Motors and Generators</td>
<td>4.0</td>
</tr>
<tr>
<td>ET124</td>
<td>Programmable Logic Controllers</td>
<td>6.0</td>
</tr>
<tr>
<td>ET125</td>
<td>Fluid Power</td>
<td>4.0</td>
</tr>
<tr>
<td>ET126</td>
<td>Robotics and Control Systems</td>
<td>6.0</td>
</tr>
<tr>
<td>ET133</td>
<td>Industrial Wiring and Schematics</td>
<td>6.0</td>
</tr>
<tr>
<td>ET134</td>
<td>Safety</td>
<td>5.0</td>
</tr>
</tbody>
</table>

APPLIED GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG118</td>
<td>Business Writing</td>
<td>4.5</td>
</tr>
<tr>
<td>MTH118</td>
<td>Applied Mathematics</td>
<td>4.5</td>
</tr>
<tr>
<td>PHY118</td>
<td>Physical Science</td>
<td>4.5</td>
</tr>
<tr>
<td>SOC118</td>
<td>Human/Customer Relations</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 90.0

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver East campus only.
WIND ENERGY TECHNOLOGY (WET)*

ASSOCIATE OF OCCUPATIONAL STUDIES
DAY SESSION: 15 months (six terms)
CREDIT HOURS: 90.0

COURSE REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>72.0</td>
</tr>
<tr>
<td>Applied General Education</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>90.0</td>
</tr>
</tbody>
</table>

PROGRAM DESCRIPTION
The college’s Wind Energy Technology program curriculum is divided into 16 classes taken over six terms. The “EL” classes focus on the basic concepts of electronics, including DC and AC circuits, and solid state theory. The subject material in the “ET” classes provides foundational lessons on motors and generators, PLCs, and safety, including climb training with a certification and OSHA 30-hour general industry training, also with a certification. The remaining classes focus on detailed principles, systems, concepts, and troubleshooting of wind turbine systems and components. Students will complete four applied general education courses to complete their program.

PROGRAM OUTCOMES
Upon successful completion of the Wind Energy Technology program, students should be able to:

- Demonstrate detailed knowledge of wind turbine structures, and major wind turbine sub-systems, including pitch systems, yaw systems, generator systems, hydraulic systems, and all components comprising these systems
- Understand the electronic and communications systems that are unique to wind turbines, including lightning protection, PLCs, SCADA basics, sensors, transformers, sub-stations, and characteristics of the power grid
- Apply sophisticated troubleshooting techniques to all wind turbine systems and identify faults, root causes, and appropriate corrective actions for safe turbine repair

LABORATORIES AND EQUIPMENT
Labs and equipment used in the Wind Energy Technology program have been selected to enable students to effectively learn the concepts necessary for entry-level technicians. The school has all of the major components for a Vestas V27 wind turbine to provide the most complete training.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL121</td>
<td>DC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL122</td>
<td>AC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL123</td>
<td>Solid State Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>ET123</td>
<td>Motors and Generators</td>
<td>4.0</td>
</tr>
<tr>
<td>ET124</td>
<td>Programmable Logic Controllers</td>
<td>6.0</td>
</tr>
<tr>
<td>ET134</td>
<td>Safety</td>
<td>5.0</td>
</tr>
<tr>
<td>WN121</td>
<td>Introduction to Wind Energy</td>
<td>3.0</td>
</tr>
<tr>
<td>WN122</td>
<td>Wind Turbine Design</td>
<td>6.0</td>
</tr>
<tr>
<td>WN123</td>
<td>Wind Turbine Structures</td>
<td>6.0</td>
</tr>
<tr>
<td>WN124</td>
<td>Wind Turbine Maintenance</td>
<td>6.0</td>
</tr>
<tr>
<td>WN125</td>
<td>Wind Turbine Systems and Components I</td>
<td>6.0</td>
</tr>
<tr>
<td>WN126</td>
<td>Wind Turbine Systems and Components II</td>
<td>6.0</td>
</tr>
<tr>
<td>WN127</td>
<td>Advanced Wind Turbine Troubleshooting</td>
<td>6.0</td>
</tr>
</tbody>
</table>

APPLIED GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG118</td>
<td>Business Writing</td>
<td>4.5</td>
</tr>
<tr>
<td>MTH118</td>
<td>Applied Mathematics</td>
<td>4.5</td>
</tr>
<tr>
<td>PHY118</td>
<td>Physical Science</td>
<td>4.5</td>
</tr>
<tr>
<td>SOC118</td>
<td>Human/Customer Relations</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 90.0

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver East campus only.
**Note:** These policies apply to all students enrolled in either a technical program or the Airframe and Powerplant program.

**GENERAL INFORMATION**

The campus reserves the right to offer courses that may be team taught or that may utilize instructors with expertise in specific technical areas.

**DEFINITION OF A QUARTER CREDIT UNIT**

One quarter credit hour equals 10 hours of classroom contact, 20 hours of laboratory work, or 30 hours of externship/field instruction, plus appropriate outside preparation. Actual hours spent on outside preparation depend on the individual student.

**FEDERAL GOVERNMENT’S DEFINITION OF A CREDIT HOUR**

For the purposes of awarding financial aid, the federal government defines a credit hour as an amount of work represented in intended learning outcomes and verified by evidence of student achievement. It is an institutionally established equivalency that reasonably approximates no less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for 10 to 12 weeks or an equivalent amount of work.

In addition, it is an institutionally established equivalency that reasonably approximates at least an equivalent amount of work for other academic activities, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit, i.e., two hours of studio, lab or clinical, or three hours of internship or practica for 10 to 12 weeks.

This definition applies only to associate and bachelor’s degree programs or diploma programs that articulate to a degree program. For diploma programs that do not articulate to an associate degree, 20 hours of instruction equals one quarter credit hour plus five hours of either instruction, student work, or both for a total of at least 25 hours of work.

**GRADING**

The college uses the following designations:

**PROFICIENCY (PR)**

A grade designation of PR indicates that a student has demonstrated competence in the content of a course through examination. The grade designation of PR does not contribute to a student’s grade point average (GPA); however, students will receive the quarter credit units toward their degree completion requirements. Credits achieved through demonstration of proficiency do not count toward determining full- or part-time academic status. Proficiency exams may not be used to replace a failing grade.

**TRANSFER (TR)**

A grade designation of TR indicates that a student has demonstrated competence in the content of a course by successfully completing an equivalent course at an accredited college or university with a grade of C or better on an A–F scale. The grade designation of TR does not contribute to a student’s GPA; however, the student will receive the quarter credit units toward his/her degree completion requirements. Credits achieved through transfer do not count toward determining full- or part-time academic status.

**WITHDRAW (W)**

A grade designation of W indicates that the student has attended and then subsequently withdrawn from a course prior to the last day to withdraw from the course with a W. A student who withdraws from a course after at least 80% of the scheduled clock hours in a course have passed receives an F. The credit designation of W does not
contribute to a student’s CGPA, and the student receives no quarter credit units toward his/her degree completion requirements. Quarter credit units will count toward the total number of credits attempted. Credits attempted count toward determining full- or part-time academic status.

AUDIT (AU)
A grade designation of AU indicates that the student has elected to attend and audit the course. An audit designation will not receive any credit for the course and it does not factor into the CGPA. In addition, degree program requirements may not be fulfilled through the audit designation. If a student elects to change the audit designation course in order to take a course for credit, he/she must receive official approval from the campus academic dean. This request must be in writing.

LEAVE (L)
A grade designation of L indicates that the student has attended and then requested and was approved for a leave of absence. The credit designation of a L does not contribute to a student’s CGPA and the student receives no quarter credit units toward his/her degree completion requirements and will not be counted in the student’s total number of credits attempted.

A complete listing of all grades and GPA values is located in the following table:

**GRADING SYSTEM**
The syllabus for each course will contain an explanation of the grading scale that is used in a particular course. While certain courses may have higher standards, the minimum grading scale in use at the college is as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Points</th>
<th>Percentage Equivalent</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>90 to 100%</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>80 to 89%</td>
<td>Above Average</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>70 to 79%</td>
<td>Average</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>60 to 69%</td>
<td>Below Average</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>59% and below</td>
<td>Failure</td>
</tr>
</tbody>
</table>

*Note: In the Airframe and Powerplant program, the minimum passing grade for each subject area and lab project is 70% per 14 CFR Part 65.1(b). A grade of 69% or below in a subject area or a lab will be an F with 0.0 grade points.*

<table>
<thead>
<tr>
<th>Other Grades</th>
<th>Receive Credit</th>
<th>Affects GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdraw (W)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>On Leave (L)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Transfer (TR)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Audited Course (AU)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Proficiency (PR)</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

REPEATED COURSE
If a student retakes and completes a course, the higher or latest grade earned in the repeated course is recorded in the academic record; however, the original grade also remains on the academic record with a double asterisk indicating the course has been retaken. The academic transcript will identify the repeated course as credits attempted but only the course with the highest grade earned will be calculated into the credits completed and the CGPA.

**NEW STUDENTS**
New students are subject to a 14-calendar-day evaluation period at the beginning of their program, during which Redstone College will evaluate the student’s readiness to engage in the academic program. Factors that will be considered include attendance during the first two weeks of classes, academic progress, and completion of the student finance process. In the event that Redstone determines that a student is not prepared to start his/her program of study, the student will be dismissed from all classes and will not be subject to any charges for tuition and fees other any books that are not returned.

**READMIT TO SCHOOL AFTER A DROP**
Any students who have discontinued their Redstone program will be evaluated for re-entry based upon their prior performance.

**TRANSCRIPTS**
Students may request an unofficial copy of their transcript from the registrar. Official academic transcripts may also be requested from the registrar.

**SATISFACTORY ACADEMIC PROGRESS**
To be in good academic standing with the college and to be eligible to receive Title IV aid, students must maintain satisfactory academic progress. At the end of each term or payment period, each student is evaluated on three components to determine if he/she is maintaining satisfactory academic progress:

1. Cumulative Grade Point Average (CGPA)
2. Successful course completion rate
3. Maximum time frame – credits attempted relative to the maximum credits attempted that are allowed (1.5 times the credits in the student’s program)

**EVALUATION POINTS**
Satisfactory academic progress evaluation points are tied to the student’s academic progress at the end of each term or every two classes for A&P students.

Please see the following EVALUATION POINTS STANDARDS chart for more information.
### EVALUATION POINT STANDARDS

<table>
<thead>
<tr>
<th>Evaluation Period</th>
<th>Minimum CGPA</th>
<th>Minimum Successful Completion % of Credits</th>
<th>Academic Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>All terms (AV, ENT, ET, IA, HVAC, WET, AV students)</td>
<td>2.0</td>
<td>66.67%</td>
<td>FA warning/ FA probation/ FA dismissal</td>
</tr>
<tr>
<td>Every two classes (A&amp;P students)</td>
<td>2.0</td>
<td>66.67%</td>
<td>FA warning/ FA probation/ FA dismissal</td>
</tr>
</tbody>
</table>

### CUMULATIVE GPA REQUIREMENTS
Students must attain a CGPA of 2.0 at their evaluation point. A minimum 2.0 CGPA is required for graduation.

### COMPLETION RATE REQUIREMENTS
At their evaluation point, students must have completed 66.67% of the cumulative credits or clock hours attempted to be making satisfactory progress.

### SAP CALCULATIONS
- **A & P program:** To calculate the completion rate, divide cumulative hours a student successfully completed by cumulative hours the student has attempted.
- **Technical programs:** To calculate the completion rate, divide cumulative credits a student successfully completed by cumulative credits the student has attempted.

### ADDITIONAL CREDENTIALS
The CGPA and course completion rate for a student who, after completion of one credential wishes to pursue another, will be adjusted by including in the SAP calculation only those courses that count toward the requirements for the new credential.

### FINANCIAL AID WARNING, FINANCIAL AID PROBATION AND FINANCIAL AID DISMISSAL
At the end of each evaluation point after grades have been posted, students’ CGPAs and completion rates are reviewed to determine whether the students are meeting the above requirements.

- Financial aid warning (FA warning) is the status students will be placed in after the first evaluation point that a student fails the SAP requirements listed above. Students on FA warning must meet with their program chair or the academic dean to develop an academic success plan that, if followed, will ensure the student is able to meet SAP in a maximum of three evaluation periods. Students who meet the SAP standards at the end of the FA warning evaluation period will be removed from FA warning and returned to a SAP met/good standing status. Students not meeting the SAP at the end of the FA warning period will be placed on financial aid probation (FA probation). Students on FA probation will continue on an academic success plan that, if followed, will ensure the student is able to meet SAP in a maximum of two evaluation periods. Students not meeting SAP and not meeting the requirements listed on the academic success plan at the end of the FA probation evaluation period will be dismissed from the college. Students whose appeal has been approved will be placed on financial aid dismissal SAP status. Students will continue on the academic success plan that, if followed, will ensure the student is able to meet SAP in a maximum of one evaluation period.

- Students not meeting SAP at the end of the FA warning term must appeal to the school in writing describing the mitigating circumstances that led them to not meet SAP (see SAP APPEALS). If a student chooses not to appeal or his/her appeal is denied, he/she will be dismissed. A student whose appeal has been approved will be placed on financial aid probation (FA probation). Students on FA probation will continue on an academic success plan that, if followed, will ensure the student is able to meet SAP in a maximum of two evaluation periods. Students not meeting the SAP standards at the end of their FA probation evaluation period will be removed from FA probation and returned to a SAP met/good standing status. Students not meeting the SAP standards at the end of the FA probation evaluation period but who continue to meet the requirements laid out in the academic success plan will be allowed to continue and do not need to re-appeal. Students failing to meet the requirements laid out in the academic success plan will be dismissed from the college. Students placed on FA probation are eligible to receive Title IV aid.

### MAXIMUM PROGRAM LENGTH
Students must complete the entire program within one-and-one-half times the standard program length, which is defined by the college as the total number of credit hours in the program. Should a student exceed the 150 percent maximum time requirement, he/she will be dismissed. Redstone College, as directed by the federal government, does not allow students...
who do not raise their CGPAs or completion rates of progress to the necessary minimums to continue to receive federal financial assistance, regardless of the students’ circumstances.

WITHDRAWALS AND REPETITIONS
Students with course withdrawals and repetitions are eligible to continue receiving financial aid if the following conditions are met:

1. The student is otherwise making satisfactory progress.
2. Students who satisfactorily complete a course but choose to repeat the course are eligible to receive Title IV aid for the first time the course is repeated. Any subsequent course repeats will not be Title IV-eligible.

SAP APPEALS
Students who are eligible to appeal may do so by submitting an academic appeal form to the campus academic dean explaining the mitigating circumstances that affected his/her performance. See the following comprehensive list of the appeal process. The student must provide documentation of the circumstances that had an adverse impact on his/her performance.

**Appeal Process**
The student must submit an academic appeal form explaining the mitigating circumstances that affected his/her performance and what changed in the student’s situation that would allow the student to demonstrate satisfactory progress. The following is a comprehensive list of events that indicate there may be mitigating circumstances which have negatively impacted academic progress:

- Death of an immediate family member
- Student illness requiring hospitalization (this includes mental health issues)
- Illness of an immediate family member where the student is a primary caretaker
- Illness of an immediate family member where the family member is the primary financial support
- Abusive relationships
- Divorce proceedings
- Previously undocumented disability
- Work-related transfer during the term
- Change in work schedule during the term
- Natural disaster
- Family emergency
- Financial hardship, such as foreclosure or eviction
- Loss of transportation where there are no other means of transportation
- Documentation from a professional counselor
- Student is following an academic success plan

The campus academic dean is responsible for determining the appropriateness of the mitigating circumstances in regard to severity, timeliness, and the student’s ability to avoid the circumstances. Any consideration of the conditions outside of the list provided must be appealed to the chief academic officer.

To appeal the application of the satisfactory academic progress standards, the student must follow the appeal process:

1. Obtain a SAP appeal form from the program chair. The appeal must include:
   - Why student failed to meet SAP
   - What has changed that will allow the student to meet SAP at the next evaluation point
2. Prior to the re-entry term, complete the form and submit it to the campus academic dean.
3. Should the appeal be granted, the student must meet with the campus academic dean or designee to develop an academic success plan.
4. Continue to attend regularly scheduled classes during the review period.

The campus academic dean will review the student’s request and reach a decision no later than the 14th calendar day after the evaluation period start.

**Appeal Process for Financial Aid Probation**
The appeal can be approved if:

1. The student has a mitigating circumstance and
2. The student will be able to meet SAP at the end of the next evaluation period, or
3. The student is following an academic success plan that, if followed, will allow him/her to meet SAP within two evaluation periods

If the appeal is granted, the student will be placed on a SAP status of FA probation. As part of the FA probation, the student must agree with and sign the academic success plan developed by the campus academic dean or designee.

**Appeal Process Dismissal**
Students who successfully appealed FA probation the previous evaluation period and who are meeting the terms outlined in the academic success plan but are still not meeting SAP do not have to appeal the dismissal and will continue to remain eligible for Title IV aid for one additional evaluation period. In such a situation, the student’s academic progress is re-evaluated at the end of the next evaluation period.

If the student is not meeting the conditions stated on the academic success plan, he/she must appeal this dismissal status.

The appeal can be approved if:
1. The student has a mitigating circumstance that occurred during the FA probation evaluation period.
2. The student will be able to meet SAP at the end of the next evaluation period.

Should an appeal be denied, the student’s dismissal stands and he/she can no longer attend classes; any tuition charges that have been posted for the current term/payment period will be reversed. A student may appeal academic dismissal only one time.

**REESTABLISHMENT AS A REGULAR (TITLE IV ELIGIBLE) STUDENT**

Students who fail to meet the SAP standards for two consecutive evaluation periods or who are dismissed must complete the appeal. A student whose appeal has been approved is eligible to receive Title IV aid in that subsequent evaluation period. During that evaluation period, the student must follow the terms outlined in the academic success plan. Students on FA probation or FA dismissal SAP status will remain in active school status and will have their progress evaluated at the completion of each evaluation period by the campus academic dean.

**TRANSFER CREDIT**

Requests for transfer credits should be submitted to the registrar as part of the admissions process and will only be accepted for consideration prior to the first day of scheduled classes during a student’s first term. In order to have transfer credits accepted at Redstone, students must have an official transcript sent from their previous institution to the Redstone College registrar. To be considered official, a transcript must be in a sealed envelope and signed by the granting institution. No photocopies will be accepted.

To be accepted for transfer credit, the course must be similar in scope and credits to a current Redstone course, should have been completed within the last five years, and the student must have earned a grade of C or better. This same five-year limitation applies to courses completed at an earlier date at Redstone College for students who may be re-entering. Exceptions are made on a case-by-case basis. All requests are subject to approval at the sole discretion of the campus academic dean. If transfer credits cannot be submitted to the registrar because of delays in receiving them from previously attended institutions, transfer credits must be accepted by the end of the first term.

Quarter credit hours are converted to semester hours by using this formula: 2/3 times number of quarter credit hours equals number of semester credit hours (rounding off to the lower whole number). One semester credit hour equals 1.5 quarter credit hours or one quarter credit hour equals .6667 semester hours. To convert semester hours into quarter hours, divide the quarter credit hours by 1.5 or multiply the semester credit hours by .6667. To convert quarter hours into semester hours, multiply the semester hours by 1.5.

Note that transfer credits may affect enrollment status and financial aid eligibility for the academic year. Consult with the appropriate program chair and a student finance advisor concerning the acceptance and impact of transfer credits.

**REDSTONE PROFICIENCY EXAMS**

Redstone provides students the opportunity to be exempt from certain required courses by demonstrating proficiency via an exam in the subject area. Students may schedule exams by contacting their appropriate program chair. After the first term, no proficiency exams may be taken without the written approval of the academic dean. The passing grade for all proficiency exams will be 70 percent.

**DUAL DEGREE**

Students may earn two or more degrees from Redstone College; however, a student may only be enrolled in one degree at a time. Credits earned for the first degree may apply toward subsequent degrees. Upon enrolling in a second degree, a determination will be made of the student’s satisfactory academic progress in the credits attempted and grades earned that count toward the new program of study.

**PROGRAM CHANGES**

The maximum time frame for a student who changes from one field of study to another is adjusted by subtracting the earned course credits that are common to both programs from the total credits in the new program and multiplying that number by 1.5.

Depending on the program, the campus academic dean or the program chair will evaluate a student’s academic progress and transfer all relevant courses.

**HONORS SYSTEM FOR ALL PROGRAMS**

- Students maintaining a term GPA of 3.60 or above will be placed on the Dean’s List for that term.
- Students graduating with a GPA from 3.60 to 3.99 will Graduate with Honors.
- Students graduating with a GPA of 4.0 will Graduate with Top Honors.

**ACADEMIC INTEGRITY POLICY**

The academic integrity policy is designed to foster a fair and impartial set of standards of conduct against which academic honesty will be judged. Students are required to adhere to these standards. This system defines dishonest acts as those which are cited in the following paragraphs. This list is not all-inclusive, as faculty may establish other standards based upon the nature of the course or the setting in which the course...
material may be delivered or applied. The following, however, constitutes the minimum standards against which academic integrity will be measured.

PREVENTION TECHNIQUES
All Redstone students have a responsibility to adhere to the academic integrity policy, as do all members of the college community. Students are expected to prevent and confront academic integrity violations by:

1. Reporting violations of the academic integrity policy to any of the following individuals:
   A. The faculty member teaching the course
   B. The program chair
   C. The campus academic dean

DEFINITIONS
For the purpose of this policy, dishonest acts are defined as those which permit a student to gain an unfair advantage over other students by any of the listed means. These include, but are not limited to:

**Aids**
Any use of aids that have not been expressly permitted.

**Alteration of Records**
Altering of records by the student or someone else.

**Bribery**
Offering money, any item, or any service to a faculty member or any other person to gain academic advantage for oneself or another.

**Cheating**
Cheating includes, but is not limited to, the unauthorized sharing of answers during an exam, using unauthorized notes or study materials during an exam, altering an exam and resubmitting it for re-grading, having one student take an exam on behalf of another student or submitting assignments in another student’s name.

Cheating also includes acquiring, without permission, tests or other academic materials and/or distributing these materials. In addition, cheating may involve participating in unauthorized collaboration on coursework to be graded, providing false information for a research paper, using electronic equipment to transmit information to a third party to seek answers, or submitting the same paper for multiple classes if it is not authorized by the faculty member.

**Collaboration**
Any act of two or more students actively cooperating on any assignment when such cooperation has not been expressly permitted by the faculty.

**Copying**
Any act of copying information from another student or for another student by any means to obtain an advantage for oneself or for another student.

**Lying**
The deliberate misrepresentation by words, actions, or deeds of any situation or fact, in part or in whole, for the purpose of enhancing one’s academic standing.

**Plagiarism**
The submission of word-for-word passages or paraphrases of others’ work without proper acknowledgement.

Also see STUDENT CONDUCT AND DISCIPLINE section of the STUDENT INFORMATION AND SERVICES section.

PROCEDURES
1. Any member of the college community may report a violation of the standards of conduct by completing a Student Action Report as described in the academic integrity policy.
2. Upon receipt of the Student Action Report, the program chair will review the record to determine whether the incident is the student’s first, second, or third offense.

SANCTIONS
For each offense, the mandatory sanction will be the minimum imposed on the student. The discretionary sanctions for each offense may be imposed if deemed appropriate by the program chair.

EXAMINATION OF STUDENT RECORDS
The Family Educational Rights and Privacy Act (FERPA) gives students certain rights with respect to their educational records. Redstone College complies with FERPA as follows:

1. Students have the right to inspect and review their educational records within 45 days of the day Redstone College receives a request for access.
2. The registrar oversees the maintenance of the educational records. Students may request a review of their records by writing to the registrar or his/her designee. Such review will be allowed during regular school hours under appropriate supervision.
3. Students may request that the college amend their educational records on the grounds that they are inaccurate, misleading, or in violation of their right of privacy.
4. Challenging the record for purposes of correcting or deleting any of the contents must be done in writing with the reason fully stated. However, the following apply:
   A. The program chair involved will review the written challenge and meet with the student. A decision will then be made to retain, change, or delete the disputed data.
B. Should further review be requested, a grievance hearing will be held, at which time the student will be afforded a full and fair opportunity to present evidence relevant to the disputed issues.

C. A copy of the challenge and/or a written explanation of the contents will then be included as part of the student’s permanent record.

The following are exceptions to the privacy act:

1. A parent’s confidential statement and other financial need data cannot be reviewed by the student when seeking to view his/her own educational record.

2. A parent, who would not normally have access to his/her child’s educational records, may be granted such access if the parent can certify that the student is financially dependent, as defined in Section 152 of the 1954 Internal Revenue Code. This access is granted at the discretion of the institution.

3. Access to a student’s educational record is granted to a school official who has a legitimate educational interest and needs to review an educational record in order to fulfill his/her professional responsibility. A school official is a person employed by the college in an administrative, supervisory, academic, research, or support staff position (including law enforcement); a person or company with whom the college has contracted (such as an attorney, auditor, collection agent, employment agency, or loan management agency); a person serving on the board of directors; or a student serving on an official committee or assisting another school official in performing his/her tasks.

4. A student may not view confidential letters of recommendation received by the school prior to Jan. 1, 1975. For letters received after 1975, the act permits students to waive their right to access if the letters are related to admissions, employment, or honors.

5. Educational records do not include school security records kept by the school’s security department, and are thus not protected under FERPA.

6. Education records do not include employment records for school employees as long as they are not also current students. Thus, these records are not protected by FERPA.

7. Education records do not include records compiled or maintained by physicians, psychiatrists, psychologists, or other recognized professionals or paraprofessionals acting or assisting in such capacities for treatment purposes, and which are available only to persons providing the treatment. These records are therefore not protected by FERPA.

8. Records requested through court action or subpoena can be released without a student’s written consent.

**DIRECTORY INFORMATION**

The college may disclose directory information without the consent of the student unless the student has restricted the release of this information. The college has designated the following categories of student information as directory information:

- Name
- Photograph
- Field of study
- Dates of attendance
- Degree
- Honors and awards received
- Participation in officially recognized activities

This information may be provided to third parties by the college. Students may block the disclosure of directory information (all or in part) by notifying the registrar’s office in writing. Although the initial request may be filed at any time, requests for non-disclosure will be honored by the college until removed in writing by the student.

**GRADE CHANGE**

All grades are considered final when recorded by the registrar’s office. Any grade change must be made within 30 days after the end of the class/term in which the grade was earned. All requests for grade changes must be submitted in writing to the academic dean.

**CANCELLATION OF CLASSES**

**INSUFFICIENT ENROLLMENT**

The college reserves the right to cancel any course or program for which there is insufficient enrollment. In the unfortunate event that Redstone must cancel a course or program, every effort will be made to teach students through a teachout agreement with another institution offering similar programs. Students also will have the option to transfer to another course or program, or to accept a mutually agreed upon arrangement between the students and the school, not excluding refund.

**INCLEMENT WEATHER**

If the college administration should determine that the school must delay opening or close due to inclement weather, the delay or closure will be publicized. Students may call 1-888-227-9115 or tune into Denver TV stations to verify any delay or closure.

**TUTORING PROGRAM**

At some point in nearly every student’s training program, he/she may find it necessary to seek some additional help with coursework. The college can provide help through the free tutoring program. Tutors are available on an as-needed basis. The tutoring program is also a viable means for advanced students to help other students and earn some income. Students have found tutoring to be an advantageous addition to their re-
sume as employers find this to be a very valuable skill. Students may inquire about the tutoring program through the appropriate program chair.

**RESOURCE CENTER**
The purpose of the resource center at the college is to maintain and develop information, resources and services that support the educational goals of students, faculty, and the staff of the college. Online information, including Internet access, e-Library, CD-ROMs, up-to-date periodicals, and printed reference resources, are available for student use. The staff will assist students in using these or any other resources. Students are encouraged to familiarize themselves with the resource center early in their first term.

**LEAVE OF ABSENCE (LOA)**
The purpose of a leave of absence is to provide students with the opportunity to leave school for an extended period of time without withdrawing or affecting satisfactory academic progress calculations. The campus academic dean or program chair may authorize a leave of absence following these guidelines:

- An LOA may only be granted to a student who has completed at least one complete class or term of instruction.
- Students must provide a signed written request to the program chair requesting the LOA. All students must submit this written request prior to exceeding the attendance policy for their program.
- Students are required to sign a Student Action Report initiated by the program chair and route the form to the administration offices. The SAR will indicate the beginning date of the LOA and the student’s required return date to school. If the student does not resume classes on or before the approved return date, that student will be withdrawn from the program.
- Under no circumstances will a leave of absence be extended beyond 180 days.
- Multiple leaves of absence may be granted during any 12-month period, beginning with the start of the most recent leave of absence, as long as the total days do not exceed 180.
- All loans and grants will be returned to appropriate parties or disbursements rescheduled for the term of an approved leave of absence.
- Students will incur no additional tuition charges during an approved leave of absence.

Reasons for granting a leave of absence may include, but are not limited to:

- Serious student medical problems
- Pregnancy
- Military duty
- Death of an immediate family member

Any LOA request for reasons other than those listed above must be approved by the campus academic dean.

**Note:** If a student does not return from an approved leave of absence, the grace period for Stafford and Perkins loans will begin with the last date of attendance. The length of the remaining eligibility of the grace period is contingent upon any portion of the time frame previously used for the leave of absence.

**FACTORS AFFECTING PROGRAM LENGTH**
Redstone College makes every effort to ensure students complete their programs in the disclosed program length. Factors that may increase a student’s program length may include, but are not limited to:

- Less than full-time enrollment
- Withdrawal from courses
- Re-taking courses
- Financial ability

Students are advised to work closely with department program chairs, student finance office, and the business office to ensure proper progression through their program.

**ARTICULATION AGREEMENTS**
The college may have established articulation agreements with specific high schools and colleges across the country. These articulation agreements identify specific coursework at these partner academic institutions that will be recognized as equivalent to coursework at the college. Students who complete this coursework successfully at partner academic institutions will receive a grade of TR for the equivalent course at the college. Additional information about articulation agreements is available through the campus academic dean.

**Notice Concerning Transferability of Credits and Degrees Earned at Redstone.**

Redstone credits will not transfer to other schools and a degree from Redstone will not be honored for admission to an advanced-degree program, except in limited circumstances.

If the credits or degree, diploma, or certificate that a student earns at this institution are not accepted at the institution to which a student seeks to transfer, he/she may be required to repeat some or all of his/her coursework at that institution. For this reason, students should make certain that their attendance at this institution will meet their educational goals. This may include contacting an institution to which a student may seek to transfer before attending Redstone College to determine if the credits or degree, diploma or certificate will transfer.
CLASS TIMES
- Day session classes are scheduled from 7:30 a.m. to 3 p.m., Monday through Friday
- Night session classes are scheduled from 5:30 p.m. to 10:52 p.m., Monday through Friday

There will be approximately 50 minutes of instruction with a 10-minute break for each hour of instruction. Meal times are included in each program's schedule.

CLASS SCHEDULE
If a student changes shift, drops and returns, or takes a leave of absence, a scheduled class may not be available.

STUDENT PROGRESS REPORTS
Following the completion of each class or term, students are informed of grades by means of a grade report. A graduation diploma and a certificate of completion are provided to graduates as evidence of successful program completion.

FAA TESTING
Upon successful completion of the A&P program, students will be eligible to take the Federal Aviation Administration (FAA) Knowledge Tests and the Oral and Practical examination required for the Airframe and/or Powerplant Certification. Redstone College is a designated FAA Test Center, which allows graduates to take the General, Airframe and Powerplant Knowledge Tests, as well as the Oral and Practical exam, at the college one time at no additional charge if completed within 60 days of graduation.

GRADUATION REQUIREMENTS
The requirements for graduation from the Airframe and Powerplant program are:
1. Completion of the required classes of instruction in the program
2. A passing grade of 70 percent or better in each class of instruction
3. Completion of the college final exams with an 80 percent grade or better on each examination
4. Student has made satisfactory arrangements with the business office/student finance to meet all financial obligations to the college

ADVANCED ACADEMIC STANDING
The Redstone College A&P program chair will determine credit for previous training or experience according to the rules and regulations established by the FAA. The policy for the granting of previous training shall not impact the refund policy. All proficiency testing allowed by the A&P program chair requires a minimum passing score of 70 percent.

ATTENDANCE
The approved attendance/tardiness procedures for A&P students will be as follows:
- Students may miss up to 10 percent of the total number of hours scheduled for the class without penalty.
- If a student misses more than 10 percent but less than 15 percent of the total class or block hours, the student must make up time as detailed below.
- A student will be allowed to exceed the 10 percent missed time only once each class.
- If the student misses in excess of 15 percent of the total class or block hours, the student must retake the class or block unless an exception is granted by the academic dean or A&P program chair.
If a student is tardy or not in the designated classroom/lab, the student must present a Redstone College time deficiency report, logged in on the time clock, to his/her instructor. However, if a student is tardy as a direct result of meeting with a school staff member, the staff member will complete an excuse for late admission to class slip. The student will present the slip to his/her instructor and the missed time will not be charged.

It is the responsibility of the student to make up any missed class material. Instructors will make available any class material missed by the student as a result of the absence.

The academic dean or A&P program chair may make an exception to the attendance/tardiness policy. Exceptions will be made on a case-by-case basis and may include:

- Jury duty, a court summons where a student is required to appear as a witness, attending a funeral, a VA disability appointment, military weekend duty, immigration appointment, etc. Documentation showing attendance will be required.
- Limited job training or an off-campus interview properly documented on the Redstone College allowed absence slip.
- Exceptional situations approved by the academic dean or A&P program chair.

The following process will be used to make up time:

- The student will meet with the both the instructor and the A&P program chair
- The student will sign a make-up time agreement
- The instructor and program chair will determine the class material missed and how it will be made available to the student
- The student will be issued a make-up time slip by the instructor
- The students will clock in and clock out and turn in the make-up time slips to the instructor
- All time must be made up before or after school. No make-up time is allowed during scheduled meal breaks
- Make-up time must be completed within five class days, but not later than the day before the last day of the class or block

If the student fails to make up the time, or if the student continues to miss time where the total hours missed exceeds 15 percent of the total hours of the class or block, the entire class or block must be retaken. For records purposes, if this occurs:

- Prior to the 80 percent point of the total hours of the class or block, the student will be dropped from the class or block
- After the 80 percent of the total hours of the class or block, the student will receive an F for the class or block

If the school is forced to shut down or open late/close early due to extreme weather conditions, power outages, etc., the academic dean or campus president may make an exception to the attendance policy. These exceptions will be handled on a case-by-case basis.
CLASS TIMES
For AV, ET, ENT, IA and WET students, classes are scheduled between 7:30 a.m. and 3 p.m., four to five days per week. For HVAC students, classes are scheduled between 5 p.m. and 11 p.m. two to five nights a week. Although every effort is made to schedule classes for students’ convenience, Redstone College reserves the right to alter scheduling if proper facilities, equipment, or staff are not available. There will be 50 minutes of instruction with a 10-minute break for each hour of instruction. Meal times are included in each program’s schedule based upon class schedules.

CLASS SCHEDULE
If a student drops and returns or takes a leave of absence, a scheduled class may not be available.

STUDENT PROGRESS REPORTS
Following the completion of each term, a student is informed of grades by means of a grade report. A graduation diploma is provided to students as evidence of successful program completion.

GRADUATION REQUIREMENTS
A student is eligible for graduation if all of the following are true:

1. The student has completed all courses required by his/her program of study with a passing grade by the last day of the graduating term.
2. The student has accumulated the total number of credits required for graduation from his/her program of study.
3. The student has a cumulative grade point average (CGPA) of 2.0 or better.
4. The student must have made satisfactory arrangements with the business office/student finance to meet all financial obligations to the college.

Students may qualify for graduation while on academic probation if, at the end of the probationary term, they meet the satisfactory progress requirements.

FCC CERTIFICATION
Currently there is no required certification of AV technicians; however, many employers of electronics/avionics technicians require the Federal Communications Commission General Radio-Telephone Operator License. The Redstone College AV program helps students prepare to complete the requirements for this test. Testing for the FCC license can be accomplished on campus at Redstone College. While attending the AV program, students are also able to test for the following certification:

- FCC license with radar endorsement
- International Society of Certified Electronics Technicians (ISCET)
- NCATT exams

ACADEMIC POLICIES
ADVANCED ACADEMIC STANDING
The following are five ways to achieve advanced academic standing at Redstone College:

- Transfer credits from accredited colleges and universities
- Articulation agreements
- Redstone College proficiency exams
- Advanced Placement Exams, College Level Examination Program (CLEP) exams, or nationally recognized certification exams
Evidence of military experience through any of the following: Military DD Form 214, DD Form 295, AARTS or SMART transcripts

When advanced academic standing is granted, a student is exempted from the course requirement. Advanced standing may have an effect on tuition. Students should be aware that transfer and proficiency credits may reduce financial aid eligibility. Students are advised to consult with the student finance office prior to seeking advanced standing to review the effect of transfer or proficiency credits on financial aid eligibility.

No more than 75 percent of a program’s total credits may be transferred or courses exempted through the awarding of credit via these five methods of achieving advanced standing. The college will grant up to 20 percent of a program’s total credit hours for external proficiency exams. The campus president may grant exceptions to this policy on a case-by-case basis.

MILITARY CREDIT
Redstone College awards credit for military schools based upon recommendations from the American Council on Education (ACE) Guide for the Evaluation of Educational Experiences in the Armed Services and the applicability of the course content to programs at the college. Requests for military service school credit must be documented by appropriate official records. Students must submit one of the following:

- DD214
- DD295
- SMART transcript
- AARTS transcript
- A transcript from an approved military school

ATTENDANCE
If the school is forced to shut down or open late/close early due to extreme weather conditions, power outages, etc., the academic dean or campus president may make an exception to the attendance policy. These exceptions will be handled on a case-by-case basis.

HVAC STUDENTS
The attendance policy for students enrolled in the HVAC programs is as follows (for this policy, an absence is defined as the missing of an entire night of a class. If a student is present for any part of a class, he/she is considered as present for the class):

1. For classes that meet one night per week (3-credit):
   - Students must attend either week one or week two of the class to be considered enrolled in the class.
   - Students will be allowed a maximum of two absences for the term.

2. For classes that meet two nights per week (6-, 6.5-, or 7-credit):
   - Students must attend at least one class in week one or week two of the scheduled class to be considered enrolled in the class.
   - Students will be allowed a maximum of four absences for the term.

3. For classes that meet three nights per week (9-credit):
   - Students must attend at least one class in week one or week two of the scheduled class to be considered enrolled in the class.
   - Students will be allowed a maximum of six absences for the term.

4. For classes that meet four nights per week (12-credit):
   - Students must attend at least one class in week one or week two of the scheduled class to be considered enrolled in the class.
   - Students will be allowed a maximum of eight absences for the term.

AV, ET, ENT, IA, AND WET STUDENTS
The attendance policy for students enrolled in the AV, ET, ENT, IA, and WET programs is as follows (for this policy, an absence is defined as the missing of an entire day of a class. If a student is present for any part of a class, he/she is considered as present for the class):

1. For classes that meet one day per week (4.0, 4.5, or 5.0 credits):
   - Students must attend either week 1 or week 2 of the scheduled class to be considered enrolled in the class.
   - Students will be allowed a maximum of two absences for the term.

2. For classes that meet two days per week (6 credits):
   - Students must attend at least one class in week one or week two of the scheduled class to be considered enrolled in the class.
   - Students will be allowed a maximum of four absences for the term.

3. For classes that meet three days per week (9 credits):
   - Students must attend at least one class in week one or week two of the scheduled class to be considered enrolled in the class.
   - Students will be allowed a maximum of six absences for the term.

Students who exceed the maximum number of absences allowed in a class prior to completion of the 80 percent point will be dropped from the class and will receive a grade of W. Students who exceed the maximum number of absences allowed...
in a class after the completion of the 80 percent point of the class will receive a grade of F.

It is the student’s responsibility to make up any missed class material.

Exceptions to this attendance policy will be made on a very limited case-by-case basis by the program chair or academic dean and may include: Jury duty, a court summons where the student is required to appear as a witness, attending a funeral, a VA disability appointment, military weekend duty, immigration appointment, severe illness, etc. Documentation supporting the absence will be required.

4. Limited job training or an off-campus interview properly documented on the Redstone College allowed absence slip.

If the school is forced to shut down or open late/close early due to extreme weather conditions, power outages, etc., the academic dean or campus president may make an exception to the attendance policy. These exceptions will be handled on a case-by-case basis.
GENERAL INFORMATION
Campus operations at Redstone College provides assistance to all students throughout their college experience. The college is committed to providing an environment that supports students in achieving their personal and professional goals. In recognition of its standard of customer service, the college endeavors to provide high-quality services in an efficient manner, subject to ongoing evaluation by students and faculty.

STUDENT RESOURCES
HOUSING
The college works with Collegiate Housing Services to offer comfortable and affordable dormitory-style, furnished apartments near the campus. The typical housing configuration is a furnished, two-bedroom, one-bathroom apartment with utilities paid, and shared by up to four same-sex students. Each student signs an individual lease. In most cases, each student will share a bedroom with another student. Other housing configurations may be available upon request, but the cost may be higher.

The most popular housing locations and facilities fill up quickly, particularly during the fall terms. To ensure that students receive the housing they desire, the college strongly encourages students to send their application fee and housing deposit to Collegiate Housing Services' Indianapolis processing center as soon as possible. Collegiate Housing Services attempts to provide housing at the time of registration. However, if the application fee and deposit do not arrive at their processing center at least 30 days before registration, students may be placed on a waiting list until housing can be arranged.

For more information or to receive an application, please contact:

Collegiate Housing Services, Inc.
Processing Center
909 East 38th Street
Indianapolis, IN 46205
Telephone: 800-866-8346
Email: sales@housingservices.com

Collegiate Housing Services will be on campus during orientation to assist students with signing leases and settling into their new homes.

Students are also welcome to make their own housing arrangements without the assistance of Collegiate Housing Services. Further housing questions should be directed to the new student advisor.

DISCRIMINATION
Redstone College prohibits unlawful discrimination or harassment on the basis of disability. A student who believes that he/she has been harassed or discriminated against on the basis of disability in violation of Section 504 of the Rehabilitation Act of 1973 or the Americans with Disabilities Act may file a written complaint to the campus president. Within 20 business days after receipt of the complaint, the student will receive written notification of the outcome of the campus president’s investigation into his/her complaint to include corrective actions taken, if appropriate based on the outcomes, to prevent further harassment.

A student may appeal to the disability discrimination appellate officer (appellate officer) any final, written decision of the campus president regarding his/her claim. A student has 10 days from receipt of the written decision from the campus president to appeal. Upon request, and where the student can show good cause, the appellate officer has the discretion to permit the student to submit his/her appeal after 10 days. If requested by the appellate officer, the campus president will forward any requested
documentation or information in writing to the appellate officer. Student-appellants, however, are encouraged to submit a thorough and complete statement in their appeal of the basis for the challenge and should attach any relevant documentation.

At his/her discretion, the appellate officer may rely solely on the student’s appeal and the written record. However, the appellate officer may conduct a hearing or request oral presentations if he/she deems it warranted by the circumstances. If the appellate officer conducts a hearing or requests oral presentations, such hearing or presentation will be carried out, usually within 10 working days of receiving all appeal materials from the student and any additional information from the campus president.

However, this period of time may be extended due to the unavailability of the appellate officer, witnesses, the student appellant, and the like.

The appellate officer will render a decision regarding the outcome of the appeal and notify the student-appellant and the campus president in writing as soon as possible, but generally no later than 20 business days from receipt of all information from the student-appellant and the completion of any hearing, testimony, or oral presentations. This decision will include corrective actions taken, if necessary, based on the outcome, to prevent further harassment. Decisions of the appellate officer are final.

To submit an appeal, students should contact SafeCampusConnect at 1-888-331-3036 or at www.safecampusconnect.com. Both of these methods are available 24 hours a day, seven days a week. In using either method to submit an appeal, the student should indicate “Discrimination” as the category selection.

The college will not tolerate unlawful retaliation against any student who in good faith raises an issue regarding violations of Section 504 of the Rehabilitation Act of 1973. If a student believes he/she has been retaliated against in violation of this policy, the student is encouraged to immediately report the retaliation in writing to the campus president.

**STUDENTS WITH DISABILITIES**
Redstone College is dedicated to providing opportunities for all qualified students to participate fully in the academic environment. Redstone College recognizes and supports the role that Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and similar state laws have in achieving that success.

The college is committed to making reasonable accommodations for students with qualifying disabilities and making its campus and facilities accessible as required by applicable law. Redstone College cannot make accommodations that fundamentally alter the nature of its programs, cause undue burdens on Redstone, or create a direct threat to the health or safety of students or others.

**STUDENT RESPONSIBILITY**
It is the responsibility of the student to request an accommodation and to follow the processes set forth in the Redstone College policy titled, “Provision of Accommodations to Students with Disabilities.” This document, as well as all accommodation-related forms, may be obtained from the campus disabilities coordinator (CDC) in the campus operations department or accessed at www.redstone.edu/ADA.

A student who does not request an accommodation will not be given one. Likewise, a student with a disability who chooses not to have any accommodations is under no obligation to seek or obtain one.

**PROCEDURE**
Students with disabilities who require accommodations, aids, or services should submit to the CDC a request for accommodation form at least six weeks prior to the start of the term. In the request, students requesting accommodations must include documentation from their health care provider or diagnostic professional regarding the nature and extent of their disability.

Students must then submit their signed and completed request for accommodation to the CDC, who forwards it to the College Accommodation Committee for its review and consideration.

Students granted accommodations will receive a letter of accommodation from the College Accommodation Committee, setting forth the specific accommodation(s) granted. Whether to grant an accommodation and the type of accommodation granted by the committee are decisions made at the discretion of the college pursuant to governing law.

Redstone College will make all reasonable efforts to respond to a request for accommodation and arrange for any granted requests before the term commences. However, Redstone cannot guarantee that all requests will be resolved by the first day of class. A student who submits a request for accommodation with insufficient time for the College Accommodation Committee to consider and resolve the request before the term commences may opt either to attend classes without the requested accommodation or to delay attending classes until the request is decided.

**APPEALS**
A student may appeal to the college accommodation appellate officer any final written decision of the College Accommodation Committee. All appeals should be in writing utilizing the accommodation appeal form attached as Appendix C to the Provision of Accommodations to Students with Disabilities policy and also available at www.redstone.edu/ADA. The student
should submit the completed appeal form to the CDC within five business days after the student receives the College Accommodation Committee’s written decision. The CDC forwards the appeal form to the appellate officer.

The college accommodation appellate officer will render a decision as soon as possible, but generally no later than three business days from receipt of all information from the student-appellant and the College Accommodation Committee and the completion of hearing any testimony or oral presentations. The appellate officer shall notify the student appellant, in writing, of the decision. The appellate officer’s decision on submitted appeals is final.

Redstone College prohibits unlawful discrimination or harassment on the basis of disability. A student who believes that he/she has been harassed or discriminated against on the basis of disability in violation of Section 504 of the Rehabilitation Act, the ADA or any applicable law may file a complaint under the procedures described in this chapter of the catalog under COMPLAINT/GRIEVANCE PROCEDURE section.

STUDENT CONDUCT AND DISCIPLINE
In addition to the academic integrity policy found in the ACADEMICS section, Redstone College has a policy on student conduct and discipline that applies to prospective and existing students.

The following behaviors are not in harmony with the educational goals of the college:

1. Academic dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the college.
2. Forgery, alteration, misuse, or mutilation of college documents, records, identifications, educational materials, or college property.
3. Obstruction or disruption of teaching, administration, disciplinary procedures, or other activities, including public service functions or other authorized activities on the campus.
4. Interfering with the learning process of other students, classroom presentations, or individual instruction being conducted in any class, laboratory, authorized activity or online session of the school.
5. Physical or verbal abuse of, or threats toward, any person, including harassment, stalking, or conduct which threatens or endangers health or safety of individuals or the campus community at large.
6. Theft of or unauthorized removal of or damage to property of the college, or using or attempting to use college property in a manner inconsistent with its designed purpose.
7. Unauthorized entry, use, or occupation of college facilities.
8. Intentional and unauthorized interference with a right of access to college facilities or freedom of movement or speech of any person on the premises.
9. Use or possession of firearms, ammunition, knives, or other dangerous weapons, substances, or materials (except as expressly authorized by the college), bombs, explosives, or incendiary devices prohibited by law.
10. Disorderly conduct or lewd, indecent, or obscene conduct or expression.
11. Violation of a federal, state, or local ordinance including, but not limited to, those covering alcoholic beverages, narcotics, dangerous drugs (as detailed in the Drug Free Schools Act), peer-to-peer file sharing, identity theft, gambling, sex offenses, or arson, which violation occurs on or through use of college property.
12. Rioting, or aiding, abetting, encouraging, or participating in a riot.
13. Failure to comply with the verbal or written directions of any college official acting in the performance of his/her duty and in the scope of his/her employment, or resisting designated campus security personnel while acting in the performance of his/her duties.
14. Aiding, abetting, or inciting others to commit any act of misconduct set forth in 1 through 12 above.
15. Conviction of a serious crime. (Upon the filing of charges in civil court involving an offense which is of a serious nature, and upon determination that the continued presence of the student would constitute a threat or danger to the college community, such student may be temporarily suspended pending disposition of the charges in civil court.)

Violation of any of the above may subject the student to any of the following:

- Reprimand
- Specific restrictions
- Disciplinary probation
- Temporary suspension
- Expulsion

Disciplinary proceedings and sanctions specific to peer-to-peer file sharing and drug and alcohol-related offenses are available through campus operations.

Judicial processes for all code of conduct violations, victim’s rights, and rights of the accused are detailed in the Annual Security Report, distributed to all new students during their term of enrollment and to all students on Oct. 1 of each year.

After being suspended, a student may be re-admitted only after the campus academic dean approves a written request. Some drug- and alcohol-related offenses may result in the student’s loss of Title IV financial aid eligibility. Readmission will be on a
probationary basis only. Any further infraction of the policies and rules will necessitate permanent suspension.

**NON-DISCRIMINATION AND ANTI-HARASSMENT POLICY**

Redstone College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free of discrimination on the basis of sex. The college considers sex discrimination in all its forms to be a serious offense. Sex discrimination constitutes a violation of this policy, is unacceptable, and will not be tolerated.

Sexual harassment, whether verbal, physical, or visual, is inconsistent with the expectations of the college and may constitute a form of sex discrimination prohibited by this policy. Sexual harassment also includes sexual violence/assault. Examples of specific conduct that constitutes sexual harassment and sexual violence/assault are set forth below.

It is the policy of Redstone to comply with Title IX of the Education Amendments of 1972 and its implementing regulations, which prohibit discrimination based on sex in the college's educational programs and activities. Title IX and its implementing regulations also prohibit retaliation for asserting claims of sex discrimination. The college has designated the following Title IX coordinator for the entire college system to coordinate its compliance with Title IX and to receive inquiries regarding Title IX, including complaints of sex discrimination:

Evelyn Falk  
Vice President of Human Resources  
7604 Technology Way, Suite 400  
Denver, CO 80237  
303-846-1669  
efalk@westwood.edu

Redstone has designated the director of campus operations as the deputy Title IX coordinator to coordinate Title IX compliance and to receive inquiries regarding Title IX, including complaints of sex discrimination:

Redstone encourages students, faculty, staff and third parties to file complaints of sex discrimination online at www.safecampusconnect.com or by calling 888-331-3036 (students and third parties) or 800-461-9330 (faculty and staff).

A person may also file a complaint of sex discrimination with the U.S. Department of Education’s Office for Civil Rights regarding an alleged violation of Title IX by visiting www2.ed.gov/about/offices/list/ocr/complaintintro.html or by calling 1-800-421-3481.

**SEXUAL HARASSMENT**

Sexual advances, requests for sexual favors, and other verbal, physical, or visual conduct of a sexual nature constitute sexual harassment when:

- Submission to such conduct is made or threatened to be made, either explicitly or implicitly, a term or condition of an individual's employment or education
- Submission to or rejection of such conduct by an individual is used or threatened to be used as the basis for academic or employment decisions affecting that individual, or
- Such conduct has the purpose or effect of substantially interfering with an individual’s academic or professional performance or creating what a reasonable person would perceive as an intimidating, hostile, or offensive employment, education, or living environment

**Examples of Sexual Harassment**

Some examples of sexual harassment include:

- Pressure for a dating, romantic, or intimate relationship
- Unwelcome touching, kissing, hugging, or massaging
- Pressure for sexual activity
- Unnecessary references to parts of the body
- Sexual innuendos or sexual humor
- Obscene gestures
- Sexual graffiti, pictures, or posters
- Sexually explicit profanity
- Asking about, or telling about, sexual fantasies
- E-mail and Internet use that violates this policy
- Sexual violence/assault (as defined below)

Further examples of sexual harassment may be found in the Frequently Asked Questions section of the college website at www.redstone.edu/.

**SEXUAL VIOLENCE/ASSAULT**

Sexual violence/assault is a form of prohibited sexual harassment. Sexual violence/assault includes physical sexual acts perpetrated against a person’s will or where a person is incapable of giving consent because of his/her temporary or permanent mental or physical incapacity or because of his/her youth.

Some examples of sexual violence/assault include:

- Sexual intercourse (anal, oral, or vaginal) by a man or woman upon a man or woman without consent
- Unwilling sexual penetration (anal, vaginal, or oral) with any object or body part that is committed by force, threat, or intimidation
- Sexual touching with an object or body part, by a man or woman upon a man or woman, without consent
- Sexual touching with an object or body part, by a man or woman upon a man or woman, committed by force, threat, or intimidation
• Prostituting another student
• Non-consensual video or audio-taping of sexual activity
• Knowingly transmitting a sexually transmitted disease to another

Further examples of sexual violence may be found in the Frequently Asked Questions section of the college website at www.redstone.edu/.

**Definition of Consent**
Lack of consent is a critical factor in determining whether sexual violence/assault has occurred. Consent is informed, freely given, and mutually understood. Consent requires an affirmative act or statement by each participant. Consent is not passive.

• If coercion, intimidation, threats, and/or physical force are used, there is no consent.
• If a person is mentally or physically incapacitated or impaired by alcohol or drugs such that the person cannot understand the fact, nature, or extent of the sexual situation, there is no consent.
• If a person is asleep or unconscious, there is no consent.
• Consent to one form of sexual activity does not imply consent to other forms of sexual activity.
• Consent can be withdrawn. A person who initially consents to sexual activity is deemed not to have consented to any sexual activity that occurs after he or she withdraws consent.

**Domestic Violence, Dating Violence, and Stalking**
The crimes of domestic violence, dating violence, and stalking can also constitute sexual harassment when motivated by a person’s sex. These crimes, no matter the motivation behind them, are a violation of this policy.

“Domestic violence” includes felony or misdemeanor crimes of violence committed by a current or former spouse or intimate partner of a victim, by a person with whom the victim shares a child in common, by a person who is cohabitating with or has cohabitated with the victim as a spouse or intimate partner, by a person similarly situated to a spouse or the victim under the domestic or family violence laws of the jurisdiction [...], or by any other person against an adult or youth victim who is protected from that person’s acts under the domestic or family violence laws of the jurisdiction.

For state law definitions covering domestic violence see:
• California Penal Code § 13700
• Colorado Revised Statutes § 18-6-800.3
• Georgia Code § 19-13-1
• 720 Illinois Compiled Statutes § 5/12-0.1 and 5/12-3.2
• Code of Virginia § 18.2-57.2

“Dating violence” means engaging in a course of conduct directed at a specific person that would cause a reasonable person to:
• Fear for his or her safety or the safety of others; or
• Suffer substantial emotional distress

For state law definitions of stalking see:
• California Penal Code § 646.9
• Colorado Revised Statutes §§ 18-3-601 and 18-3-602
• Georgia Code § 16-5-90
• 720 Illinois Compiled Statutes § 5/12-7.3
• Code of Virginia § 18.2-60.3

**ROLES AND RESPONSIBILITIES**
It is the responsibility of the Title IX coordinator to coordinate dissemination of information and education and training programs to:

1. Assist members of the college community in understanding that sex discrimination and sexual harassment are prohibited by this policy
2. Ensure that investigators are trained to respond to and investigate complaints of sex discrimination and sexual harassment
3. Ensure that faculty, staff, and students are aware of the procedures for reporting and addressing complaints of sex discrimination and sexual harassment

The appropriate deputy Title IX coordinator is also responsible for implementing the complaint resolution procedures for the campus to which the complaint pertains.

It is the responsibility of deans, department chairs, and managers (i.e., those that formally supervise other employees) to:
• Inform employees under their direction or supervision of this policy
• Notify the Title IX coordinator or appropriate deputy Title IX coordinator for their campus promptly if they receive reports, witness, or otherwise learn of complaints of sex discrimination and sexual harassment
• Implement any corrective actions that are imposed as a result of findings of a violation of this policy

It is the responsibility of all employees and all students to review this policy and comply with it.

When the college is aware that a member of the college community may have been subjected to or affected by conduct that violates this policy, the college will take prompt action, including a review of the matter and, if necessary, an investigation and appropriate steps to stop and remedy the sex discrimination or sexual harassment. The college will act in accordance with its complaint resolution procedures.

COMPLAINTS

Making a Complaint
All Redstone employees and staff have a duty to report sex discrimination and sexual harassment to the Title IX coordinator or appropriate deputy Title IX coordinator for their campus or report their complaint to SafeCampusConnect online at www.safecampusconnect.com or by calling 1-800-461-9330.

Students who wish to report sex discrimination or sexual harassment should file a complaint with the Title IX coordinator or appropriate deputy Title IX coordinator for their campus or report their complaint to SafeCampusConnect online at www.safecampusconnect.com or by calling 1-888-331-3036. Students and other persons may also file a complaint with the U.S. Department of Education’s Office for Civil Rights, as set forth in Section II above.

Content of the Complaint
So that the college has sufficient information to investigate a complaint, the complaint should include the following information:

• The date(s) and time(s) of the alleged conduct
• The names of all person(s) involved in the alleged conduct, including possible witnesses
• All details outlining what happened
• Contact information for the complainant so that the college may follow up appropriately

A complainant will be given a copy of the document titled Explanation of Rights and Options After Filing a Complaint Under the Title IX: Non-Discrimination and Anti-Harassment Policy. CONDUCT THAT CONSTITUTES A CRIME
Any person who wishes to make a complaint of sex discrimination or sexual harassment that also constitutes a crime — including sexual violence/assault, domestic violence, dating violence, or stalking — is encouraged to make a complaint to local law enforcement. If requested, the College will assist the complainant in notifying the appropriate law enforcement authorities. A victim may decline to notify such authorities.

If you are the victim of sexual violence/assault, domestic violence, dating violence, or stalking, do not blame yourself. These crimes are never the victim’s fault. The College recommends that you immediately go to the emergency room of a local hospital and contact local law enforcement, in addition to making a prompt complaint under this policy.

If you are the victim of sexual violence/assault, domestic violence, dating violence, or stalking, do everything possible to preserve evidence by making certain that the crime scene is not disturbed. Preservation of evidence may be necessary for proof of the crime or in obtaining a protection order. Victims of sexual violence/assault, domestic violence, or dating violence should not bathe, urinate, douche, brush teeth, or drink liquids until after they are examined and, if necessary, a rape examination is completed. Clothes should not be changed. When necessary, seek immediate medical attention at an area hospital and take a full change of clothing, including shoes, for use after a medical examination.

It is also important to take steps to preserve evidence in cases of stalking, to the extent such evidence exists. In cases of stalking, evidence is more likely to be in the form of letters, emails, text messages, etc. rather than evidence of physical contact and violence.

Once a complaint of sexual violence/assault, domestic violence, dating violence, or stalking is made, the complainant has several options such as, but not limited to:

• Contacting parents or a relative
• Seeking legal advice
• Seeking personal counseling (always recommended)
• Pursuing legal action against the perpetrator
• Pursuing disciplinary action
• Requesting that no further action be taken

PROTECTING THE COMPLAINANT
Pending final outcome of an investigation, the college will take steps to protect the complainant from any further harassment or retaliation. This may include assisting and allowing the complainant to change his/her academic, transportation, work, or living situation if options to do so are reasonably available. Such changes may be available regardless of whether the victim chooses to report the crime to campus police or local law enforcement.
If a complainant has obtained a temporary restraining order or other no contact order against the alleged perpetrator from a criminal, civil, or tribal court, the complainant should provide such information to the Title IX coordinator or appropriate deputy Title IX coordinator for his/her campus. The college will take all reasonable and legal action to implement the order.

The college encourages persons to make complaints of sex discrimination and sexual harassment as soon as possible because late reporting may limit the college’s ability to investigate and respond to the conduct complained of.

All complaints of sex discrimination and sexual harassment will be promptly and thoroughly investigated in accordance with the complaint resolution procedures. The college will make reasonable and appropriate efforts to preserve an individual’s privacy and protect the confidentiality of information when investigating and resolving a complaint. However, because of laws relating to reporting and other state and federal laws, the college cannot guarantee confidentiality to those who make complaints.

In the event a complainant requests confidentiality or asks that a complaint not be investigated, the college will take all reasonable steps to investigate and respond to the complaint consistent with the request for confidentiality or request not to pursue an investigation. If a complainant insists that his or her name not be disclosed to the alleged perpetrator, the college’s ability to respond may be limited. The college reserves the right to initiate an investigation despite a complainant’s request for confidentiality in limited circumstances involving serious or repeated conduct or where the alleged perpetrator may pose a continuing threat to the college community.

If a complaint of sex discrimination or sexual harassment is found to be substantiated, the college will take appropriate corrective action. Students, faculty, and staff found to be in violation of this policy will be subject to discipline up to and including termination, expulsion, or other appropriate institutional sanctions; affiliates and program participants may be removed from the college programs and/or prevented from returning to campus. Remedial steps may also include counseling for the complainant, academic, transportation, work, or living accommodations for the complainant, separation of the parties, and training for the respondent and other persons.

While the college encourages all good faith complaints of sex discrimination and sexual harassment, the college has the responsibility to balance the rights of all parties. Therefore, if the college’s investigation reveals that a complaint was knowingly false, the complaint will be dismissed and the person who filed the knowingly false complaint may be subject to discipline.

It is a violation of this policy to retaliate against any person for making a good faith complaint of sex discrimination or sexual harassment and/or cooperating in the investigation of (including testifying as a witness to) such complaint.

This policy and the complaint resolution procedures apply to the conduct of vendors, contractors, and third parties. If a member of the college community believes that he/she has been subjected to sex discrimination or sexual harassment by a vendor, contractor, or third party, the person should make a complaint in the manner set forth in Section V above. The college will respond to the complaint as appropriate, given the nature of its relationship to the vendor, contractor, or third party.

While the college is committed to the principles of free inquiry and free expression, sex discrimination and sexual harassment are neither legally protected expression nor the proper exercise of academic freedom.

EDUCATION

Because the college recognizes that the prevention of sex discrimination, sexual harassment, sexual violence/assault, domestic violence, dating violence, and stalking is important, it offers educational programming to a variety of groups such as: campus personnel; incoming students and new employees participating in orientation; and members of student organizations. Among other elements, such training will cover relevant definitions, procedures, and sanctions; will provide safe and positive options for bystander intervention; and will provide risk reduction information, including recognizing warning signs of abusive behavior and how to avoid potential attacks.

To learn more about education resources, please contact the Title IX coordinator or appropriate deputy Title IX coordinator at Redstone.

STUDENT TECHNOLOGY USE POLICY

Redstone College provides its students with many types of information technology resources. The college strongly believes in the educational value of these resources and recognizes their potential to support the curriculum and student learning. These resources are provided in order to promote educational excellence by facilitating resource sharing, innovation, and communication. Users must be continuously alert to inappropriate and illegal use of the college’s IT resources. A student’s use of the college’s IT resources constitutes his/her acknowledgement of the rules contained in this policy and his/her agreement to abide by these rules. A student’s violation of these rules may subject him/her to disciplinary action, up to and including dismissal from the college.

This policy applies to any student who uses the college’s IT resources. The resources covered by this policy include, but are not limited to, computer hardware and software, telephone and data networks, and electronically stored date. Use of these resources includes access from off-campus and on-campus, as well as access from privately owned computers and electronic devices.
RIGHTS AND RESPONSIBILITIES
Access to and use of IT resources and the Internet shall comply with federal laws, state laws, and the policies and procedures of the college. By using the college’s IT resources, all users agree to the rules, regulations, and guidelines contained in this technology use policy.

Computers and networks provide access to IT resources on- and off-campus, as well as the ability to communicate with other users worldwide. Such open access is a revocable privilege and requires that users behave ethically and act responsibly. This TUP is intended to supplement college policies and does not release users from compliance with any existing policies that address ethical issues such as harassment, academic dishonesty, and plagiarism.

The college’s IT resources are primarily designated for instructional, research, or administrative purposes. Users may use IT resources for personal purposes as long as that use does not interfere with the primary use.

Because the college’s computers and networks are shared resources, any user’s activity that inhibits or interferes with the use of these resources by others is not permitted. The college may ensure reasonable use by monitoring access logs, traffic data, and network utilization.

Users are responsible for all activities to and from their access accounts. Users must take every precaution to protect access accounts. Under no circumstances should a user allow someone else to share an access account.

Users should not assume or expect any right of privacy with respect to the IT resources. System administrators or other authorized college personnel may access or examine files or accounts that are suspected of unauthorized use or misuse, that have been corrupted or damaged, or that may threaten the integrity of the college’s computer systems. In addition, files, email, access logs, and any other electronic records may be subject to search under court order.

PROHIBITED USE OF INFORMATION TECHNOLOGY RESOURCES
It is a violation to:

1. Intentionally and without authorization, access, modify, damage, destroy, copy, disclose, print, or take possession of all or part of any computer, computer system, network, software, data file, program, database, or any other college IT resource. This includes:
   A. Gaining access by willfully exceeding the limits of authorization
   B. Attempting (even if unsuccessfully) to gain unauthorized access through fraudulent means
   C. Gaining access by using another person’s name, password, access codes, or personal identification
   D. Attempting (even if unsuccessfully) to gain unauthorized access by circumventing system security, uncovering security loopholes, or guessing passwords/access codes

5. Give or publish a password, identifying code, personal identification number or other confidential information about a computer, computer system, network or email account, database, or any other college IT resource.

6. Load any third-party software on computer systems in the computer labs, unless authorized by a member of the lab staff, a faculty member, or an information technology services (ITS) representative.

7. Transfer copyrighted materials to or from any system, or via the college network, without the express consent of the owner of the copyrighted material. (See the section entitled FILE SHARING AND COPYRIGHT INFRINGEMENT.)

8. Provide unauthorized external access to college-developed or commercially-obtained IT resources.

9. Use any IT resources for commercial, political, or illegal purposes; personal financial gain; or harassment of any kind.

10. Display obscene, lewd, or otherwise offensive images or text.

11. Intentionally or negligently use IT resources in such a manner as to cause network congestion and performance degradation.

PROVISIONS FOR PRIVATE COMPUTERS CONNECTED TO THE COLLEGE NETWORK
The following apply to anyone connecting a private computer to the college network via a wireless LAN connection, a dial-up network connection, a virtual private network (VPN) connection, a regular network connection in an office, or any other network connection.

1. The owner of the computer is responsible for the behavior of all users on the computer, and all network traffic to and from the computer, whether or not the owner is aware of the traffic generated.

2. A private computer connected to the network may not be used to provide network access for anyone who is not authorized to use the college systems. The private computer may not be used as a router or bridge between the college network and external networks, such as those of an Internet Service Provider.

3. Should college IT services staff have any reason to believe that a private computer connected to the college network is using the IT resources inappropriately, network traffic to and from that computer will be monitored. If justified, the
4. Users are responsible for the security and integrity of their systems. In cases where a computer is hacked into, the user shall either shut down the system or remove it from the campus network as soon as possible to localize any potential damage and to stop the attack from spreading.

ELECTRONIC MAIL
The college email system is not a private secure communications medium. As such, users of email cannot expect privacy. By using the college email system, each user acknowledges:

The use of electronic mail is a privilege, not a right. Transmitting certain types of communications is expressly forbidden. This includes messages containing chain letters, pyramids, urban legends, and alarming hoaxes; vulgar, obscene, or sexually explicit language; threatening or offensive content; derogatory, defamatory, sexual, or other harassment; or discriminatory communication of any kind. As with other information technology resources, the use of email for commercial or political purposes is strictly prohibited.

Under the Electronic Communications Privacy Act, tampering with email, interfering with the delivery of email, and using email for criminal purposes may be felony offenses, requiring the disclosure of messages to law enforcement or other third parties without notification.

Email messages should be transmitted only to those individuals who have a need to receive them. Distribution lists should be constructed and used carefully. Email distribution lists should be kept current and updated regularly. Inappropriate mass mailing is forbidden. This includes multiple mailings to newsgroups, mailing lists, or individuals (e.g., spamming, flooding, or bombing).

Users of the college email system waive any right to privacy in email messages and consent to the access and disclosure of email messages by authorized college personnel. Accordingly, the college reserves the right to access and disclose the contents of email messages on a need-to-know basis. Users should recognize that under some circumstances, as a result of investigations, subpoenas, or lawsuits, the college might be required by law to disclose the contents of email communications.

FILE SHARING AND COPYRIGHT INFRINGEMENT
Federal copyright law applies to all forms of information, including electronic communications. Users should be aware that copyright infringement includes the unauthorized copying, displaying, and/or distributing of copyrighted material. All such works, including those available electronically, should be considered protected by copyright law unless specifically stated otherwise.

The college complies with all provisions of the Digital Millennium Copyright Act. Any use of the college network, email system, or website to transfer copyrighted material including, but not limited to, software, text, images, audio, and video is strictly prohibited. Therefore, the use of peer-to-peer file sharing programs (such as BitTorrent, KaZaA, Morpheus, iMesh, etc.) is, in most cases, a violation of college policy and federal law.

Users who commit acts of copyright infringement through their use of IT resources will be subject to disciplinary action by the college. Acts of copyright infringement and piracy are violations of state and federal laws, and as such, may result in criminal charges.

NO WARRANTIES
The college makes no warranties of any kind, whether expressed or implied, with regard to IT resources. The college will not be responsible for any damages suffered as a result of using IT resources. These damages may include, but are not limited to, loss of data as a result of delays, or service interruptions caused by IT resources or by user error or omissions. Use of any information obtained through IT resources is at the user’s sole risk. The college disclaims any responsibility for the accuracy of information obtained through IT resources.

The user agrees to indemnify and hold harmless Redstone College, its parent and/or subsidiary companies and affiliates, as well as its directors, officers, agents and employees from and against any claim, lawsuit, cause of action, damage judgment, loss, expense, or liability resulting from any claim, including reasonable attorneys’ fees, arising out of or related to the use of IT resources. This indemnity shall include, without limitation, those claims based on trademark or service mark infringement, trade name infringement, copyright infringement, defamation, unlawful discrimination or harassment, rights of publicity, and invasion of privacy.

REPORTING VIOLATIONS OF IT ACCEPTABLE USE REGULATIONS
Violations of this policy should be reported immediately to the IT department. The college will make every effort to maintain confidentiality to the extent possible consistent with other obligations.

DISCIPLINARY ACTION
Violations of the provisions of this TUP will result in the appropriate disciplinary action, which may include loss of computing privileges, suspension, termination, or expulsion from the college, and legal action.

COMPLAINT/GRIEVANCE PROCEDURE
Redstone College recognizes that, on occasion, a student, faculty member, staff or interested third party may have a concern or issue that necessitates a prompt and fair resolu-
tion. To address these issues, faculty, staff, and interested third parties should report their concern to SafeCampusConnect at 1-800-461-9330.

Students should follow the prescribed series of steps outlined below in an effort to obtain a mutual and satisfactory resolution of the student’s concern or issue. The process provided in this section does not apply to claims of sex discrimination, sexual harassment and sexual violence. The procedure for reporting claims of sex discrimination, sexual harassment, and sexual violence are contained in the NON-DISCRIMINATION AND ANTI-HARASSMENT POLICY section in this chapter of the catalog.

The college will not tolerate unlawful retaliation against any student, faculty, staff or interested third party who in good faith files a complaint, testifies, assists, or participates in any manner in an investigation, proceeding, or hearing regarding any form. If anyone believes he/she has been retaliated against in violation of this policy, he/she is encouraged to immediately report the retaliation in writing to the campus president. Redstone College will take appropriate measures to ensure that no such retaliation occurs.

If students have an academic issue or concern (e.g., make-up work, instruction), the first person to talk to is the course instructor. If talking with the instructor does not result in a satisfactory resolution, the next steps are to talk with the program chair and the campus academic dean. These staff members can resolve a vast majority of concerns or issues.

If students have a nonacademic issue or concern, with the exception of the student harassment policy referenced above (e.g., parking, ID cards), the first person with whom students should talk is the manager of the department where the concern is focused. Talking to the director of campus operations is the next step in the process. The director will attempt to coordinate a mutual and satisfactory resolution with the individuals or departments involved.

If a student would like to appeal a Letter of Accommodation from the College Accommodation Committee, a separate process can be found in this section of the catalog under STUDENTS WITH DISABILITIES.

If a student still cannot find a satisfactory resolution, the student can initiate a grievance process by presenting a written and signed grievance to the campus president. In the event a mutual and satisfactory resolution has not been achieved at this level, the student may take his/her written and signed grievance to subsequent levels within the college organization. The steps in resolving a grievance are summarized in the following STUDENT GRIEVANCE table.

<table>
<thead>
<tr>
<th>Academic Issues</th>
<th>Non-Academic Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td>Faculty</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>Program chair</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td>Campus academic dean</td>
</tr>
<tr>
<td><strong>Step 4</strong></td>
<td>Director of campus operations</td>
</tr>
<tr>
<td><strong>Step 5</strong></td>
<td>Campus president</td>
</tr>
<tr>
<td><strong>Step 6</strong></td>
<td>Student Resolution Hotline via SafeCampusConnect</td>
</tr>
<tr>
<td><strong>Step 7</strong></td>
<td>Redstone central administration office</td>
</tr>
<tr>
<td><strong>Step 8</strong></td>
<td>Accrediting agency</td>
</tr>
<tr>
<td><strong>Step 9</strong></td>
<td>Arbitration</td>
</tr>
</tbody>
</table>

If a student does not feel that the college has adequately addressed a complaint or concern, the student may consider contacting the accrediting agency. All complaints considered by the agency must be in written form, with permission from the complainant(s) for the agency to forward a copy of the complaint to the college for a response. The agency will keep the complainant(s) informed as to the status of the complaint as well as the final resolution. A copy of the agency’s complaint policy is available at the college and may be obtained by contacting the campus president.

Redstone College is accredited by:

The Accrediting Council for Independent Colleges and Schools (ACICS)
750 First Street NE, Suite 980
Washington, DC 20002-4241
Telephone: 202-336-6780
Questions or concerns that are not satisfactorily resolved by school officials in Colorado may be brought to the attention of:

Director, Colorado Department of Higher Education
Division of Private Occupational Schools
1560 Broadway, Suite 1600
Denver, CO 80202
Telephone: 303-866-2723
Website: http://highered.colorado.gov/dpos

Complaints may be filed online. There is a two-year limitation from the student’s last date of attendance on the division taking action. Per Colorado statutes, a person must first exhaust all complaints and appeals available at Redstone before filing a written complaint with the division.

Students will not be subject to punitive action because of written grievances having been filed with the college or the superintendent. The college maintains a written record of its handling of all student complaints.

Any student or employee who believes he/she has been aggrieved by a violation of IL code 451 shall have the right to file a written complaint within one year of the alleged violation. The superintendent shall acknowledge within 20 days receipt of such written complaint.

The superintendent shall furnish such findings to the person who filed the complaint and to the chief operating officer of the school cited in the complaint:

Illinois State Board of Education
100 North First Street
Springfield, IL 62777

Questions or concerns that are not satisfactorily resolved by college officials for the state of Kansas students may be brought to the attention of:

Private & Out-of-State Postsecondary Education
Kansas Board of Regents
1000 SW Jackson, Suite 520
Topeka, KS 66612
Telephone: 785-296-4917

Questions or concerns that are not satisfactorily resolved by college officials for the state of Missouri students may be brought to the attention of:

Missouri Coordinating Board for Higher Education
PO. Box 1469
Jefferson City, MO 65102
Telephone: 573-751-2361
Fax: 573-751-2361
Website: www.dhe.mo.gov

Questions or concerns that are not satisfactorily resolved by college officials for the state of New Mexico students may be brought to the attention of:

New Mexico Department of Higher Education
2048 Galisteo Street
Santa Fe, NM 87505-2100
Telephone: 505-476-8400
Website: http://www.hed.state.nm.us/complaint_3.aspx

Questions or concerns that are not satisfactorily resolved by school officials for the state of Ohio students may be brought to the attention of:

State of Ohio
Board of Proprietary School Registration
35 East Gay Street, #403
Columbus, OH 43215
Telephone: 877-275-4219
Certificate #99-06-15147

Questions or concerns that are not satisfactorily resolved by school officials for the state of Texas students may be brought to the attention of:

Texas Workforce Commission
Career Schools and Colleges Section
101 East 15th Street
Austin, TX 78778
Telephone: 512-936-3100

Questions or concerns that are not satisfactorily resolved by school officials for the state of Wyoming students may be brought to the attention of:

Wyoming Department of Education
2300 Capitol Avenue
Hathaway Building, 2nd Floor
Cheyenne, WY 82002
Telephone: 307-777-7673

**AGREEMENT TO BINDING, INDIVIDUAL ARBITRATION AND WAIVER OF JURY TRIAL**

The student understands that both the college and he/she irrevocably waive rights to a trial by jury, and elect instead to submit all claims involving or between the parties and any past or present affiliates or employees to the binding, confidential decision of a single arbitrator instead of a court because it is fair, economical and speedy. The arbitration shall be binding and conducted pursuant to the Federal Arbitration Act by the American Arbitration Association under its Supplementary Procedures for Consumer-Related Disputes.

The college and student also agree that if any provision of this agreement is found to be invalid or unenforceable, then such specific part or parts shall be of no force and effect and shall be severed, but the remainder of the agreement shall continue in full force. The signed arbitration agreement will survive the termination of the student’s relationship with the college.
TERMS OF ARBITRATION

1. Neither the college nor the student shall file any lawsuit in any court against the other and agree that any suit filed in violation of this provision shall be promptly dismissed by the court in favor of an arbitration conducted pursuant to this provision. Both the college and the student agree that the moving party shall be entitled to an award of costs and fees of compelling arbitration.

2. The costs of the arbitration filing fee, arbitrator’s compensation and facilities fees that exceed the applicable court filing fee will be split equally by the student and the college for all claims less than $75,000 and the student will be responsible for all fees if the student claims more than $75,000. The student will not be responsible for arbitration fees if he/she demonstrates hardship and, if represented, his/her attorney does not advance clients’ litigation costs. All fees, including attorney’s fees, shall be paid by a party whose claims are determined to be frivolous. The arbitrator has power to award prevailing party attorney’s fees and costs if a claim is based on a statute providing such fees to any party.

3. In order to: respect the student’s privacy and that of fellow students; promote the speedy resolution of the claim; recognize that the facts and issues are unique to the student alone; and recognize the significant amount of the student’s tuition likely will allow the student to find a lawyer willing to take the case, the student will not combine or consolidate any claims with those of other students, such as in a class or mass action, or for the claims of more than one student to be arbitrated or litigated jointly or consolidated with any other student’s claims.

4. Any dispute as to the arbitrability of a particular issue or claim shall be resolved in arbitration. Any issue concerning the validity of paragraph 3 above must be decided by a court, and an arbitrator does not have authority to consider the validity of the waiver. If for any reason the class action waiver in paragraph 3 is found to be unenforceable, any putative class action may only be heard in court on a nonjury basis and may not be arbitrated under the arbitration agreement.

5. The student may opt out of this single-case provision by hand-delivering a written statement to that effect to the campus president of his/her campus within 30 days of the first execution of an enrollment agreement with the college.

6. Any remedy available from a court under the law shall be available in the arbitration. The arbitrator(s) shall not have the power to commit any error of material fact, in law, or in legal reasoning.

7. Nothing in the agreement prohibits the student from filing a complaint with the state regulatory agency or accrediting agency listed in the catalog.

8. Except as specifically required by law of the state in which the agreement is executed, the fact of and all aspects of this arbitration and the underlying dispute shall remain strictly confidential by the parties, their representatives and the AAA.

9. To the extent the student has outstanding federal student loan obligations incurred in connection with the student’s enrollment at the college, any arbitration award providing monetary damages shall direct that those damages be first paid toward those student loan obligations.

10. If the college or the student loses in arbitration, the losing party may appeal for de novo review to a court of competent jurisdiction if permitted by applicable law. Once the notice of appeal is timely served, the arbitration award shall no longer be considered final for purposes of seeking judicial enforcement under the applicable arbitration statute. The final decision rendered by the arbitrator may be entered in any court having jurisdiction.
PROCEDURE FOR FILING AN INDIVIDUAL ARBITRATION
1. Students are strongly encouraged, but not required, to utilize the grievance procedure described in the catalog prior to filing arbitration.
2. A student who desires to file an arbitration shall first contact the campus president, who will provide the student with a copy of the AAA Supplementary Procedures for Consumer-Related Disputes. The most current AAA Supplementary Procedures for Consumer-Related Disputes is also available online at www.adr.org. A student who desires to file an arbitration should then contact the AAA directly to obtain the appropriate forms and detailed instructions.
3. A student may, but need not, be represented by an attorney in arbitration.
4. Unless the parties agree otherwise, the location of the arbitration shall be in a locale near the student so long as the student is located in the United States. If the student is not located in the United States, the arbitration shall take place in Denver, near the college’s central administrative offices, unless the parties agree otherwise.
5. Any or all of the provisions set for in the arbitration agreement may be waived by the party against whom the claim is asserted, but such waiver shall be in writing, physically signed (not merely electronically signed) by the party waiving, and specifically identify the provision or provisions being waived. Any such waiver shall not waive or affect any other portion of the arbitration agreement.

OTHER STUDENT SERVICES

DRUG FREE SCHOOLS ACT
The college forbids the use, possession, distribution, or sale of drugs or alcohol by students, faculty, or staff anywhere on the college’s property or at college-sponsored events off campus.

Anyone in violation of state, federal or local regulations with respect to illegal drugs or alcohol may be subject to both criminal prosecution and campus disciplinary action.

CAMPUS CRIME AND SECURITY ACT
The college is in compliance with the Campus Crime and Security Act of 1990 and publishes an annual report on approximately Oct. 1 of each year. If a student becomes a witness to or a victim of a crime on campus, the student should immediately notify college officials and report the incident to the local law enforcement agency. Emergency numbers are located throughout each campus.

SAFETY INFORMATION
The security of all members of the campus is a primary concern to the college. Each year, the college publishes a report outlining security and safety information and crime statistics for the campus community. This report provides important policy information about emergency procedures, reporting of crimes, and information about support services for victims of sexual assault. The report on such crimes is available from the campus president, who is responsible for maintaining records of all crimes that occur on campus.

GRADUATION CEREMONY
A graduation ceremony is held for graduating students, their guests and family members. Numerous awards are presented to students for outstanding achievement in academics and attendance.

VETERANS BENEFITS
Students eligible for Veterans Educational Benefits, Chapter 30, Chapter 32, Chapter 33, Chapter 1606, Chapter 1607, or Chapter 35 (Survivors and Dependents Educational Assistance) may use them to attend any program at Redstone College. Students may also attend any program under Chapter 31 (Vocational Rehabilitation). The veterans service officials will provide assistance in applying for benefits once a student is enrolled.

ADDITIONAL INFORMATION

COPYRIGHT INFRINGEMENT POLICY
Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work.

In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

The Higher Education Opportunity Act of 2008 (HEOA) includes provisions that are designed to reduce the illegal uploading and downloading of copyrighted material through peer-to-peer (P2P) file sharing. These provisions include requirements that:

- Institutions certify to the Secretary of Education that they have developed plans to effectively combat the unauthorized distribution of copyrighted material.
- Institutions make an annual disclosure that informs students that the illegal distribution of copyrighted materials may subject them to criminal and civil penalties and describes the steps that institutions will take to detect and punish illegal distribution of copyrighted materials.
- Institutions publicize alternatives to illegal file sharing.

Redstone College currently employs bandwidth-shaping technology to prioritize network traffic, and blocks students’ ability to access these sites from the student computer networks.
Redstone College responds promptly to legitimate notices or letters of illegal copyright infringement based on the requirements of the Digital Millennium Copyright Act and directs both its information technology and compliance departments to investigate and respond.

**Sanctions**
Redstone College will cooperate fully with any investigation by public authorities related to illegally downloaded copyrighted information. Students found guilty will be subject to the full extent of fines and penalties imposed, as well as facing automatic loss of Redstone College network access, and possible suspension.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or statutory damages affixed at not less than $750 and not more than $30,000 per work infringed. For willful infringement, a court may award up to $150,000 per work infringed. A court can, in its discretion, also assess costs and attorney fees. For details, see Title 17, United States Code, Sections 504, 505.

Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to $250,000 per offense.

For more information, see the website of the U.S. Copyright Office at www.copyright.gov, especially its FAQs at www.copyright.gov/help/faq.

**Annual Disclosure and Education**
Consistent with its educational principles, Redstone views education as the most important element in combating illegal sharing of copyrighted materials. The college uses a wide variety of methods to inform its community about the law and its internal response to copyright infringement claims:

- Posters are mounted in student computer labs and resource center to educate students and discourage illegal file sharing.
- Redstone College’s statement concerning the Digital Millennium Copyright Act and its response to infringement claims are published on Redstone’s public website as well as on the students’ internal network.
- Language has been added to the Annual Security Report outlining the Digital Millennium Copyright Act, as well as sanctions for non-compliance.

**Alternatives to Illegal File Sharing**
Redstone College does not block access from campus to all legitimate sources of copyrighted material. Although it cannot maintain an up-to-date list of alternatives, it points students to the Educause list at: http://www.educause.edu/Resources/Browse/LegalDownloading/33381.

Redstone College will review this plan each year to insure it is current and maintains the appropriate and necessary information to effectively combat illegal file sharing, as well as update the methods employed as new technological deterrents become available.

**REDSTONE ALCOHOL AND DRUG ABUSE PREVENTION POLICY**
Redstone College students are expected to comply with local, state and federal laws relating to the use of drugs and alcohol. The college will not tolerate conduct that disrupts the campus or the academic environment.

The college values its relationship with the adjoining community, and recognizes the right of its neighbors to be secure from abusive conduct and potentially dangerous behavior caused by the use of drugs and alcohol on campus property.

With this in mind, Redstone College has established a clear, concise policy related to the use of alcohol and illicit drugs. The following are strictly prohibited on school-owned or controlled property or as part of any school-sponsored activities: the unlawful manufacture, distribution, dispensing, possession, or use of an illegal controlled substance and/or of alcoholic beverages; and the unauthorized possession of any alcoholic beverages.

Redstone College prohibits individuals from being under the influence of illegal drugs on school-owned or controlled property or as part of school activities.

Redstone College has also established sanctions for violations of this policy. The sanctions range from warnings and substance abuse awareness programs for minor offenses to dismissal and/or referral to civil authorities for major and/or multiple offenses. Selling or distributing drugs will result in suspension or dismissal from Redstone College. These sanctions, as well as the judiciary process that is followed, are discussed in detail in the Annual Security Report. Violators may also be subject to the loss of financial aid.

The college recognizes that while the sanctioning process is educational in nature, students must understand that they will be held accountable for their actions in both the college setting and the external world. Therefore, Redstone College administrators will cooperate fully with law enforcement actions regarding use of drugs or alcohol on school grounds.

Federal law provides strict penalties for violation of federal drug laws. For a first conviction of illegal possession of a controlled substance, a person may be imprisoned for up to one year and/
or fined at least $1,000 but not more than $100,000. After two or more prior convictions, the penalty increases to at least 90 days in jail, but not more than three years and/or a fine of at least $5,000 but not more than $250,000.

Federal trafficking penalties for controlled substances (such as marijuana, heroin, cocaine, PCP and LSD) range from less than five years in prison and/or a fine of less than $250,000 to life imprisonment and/or a fine of up to $8 million (for an individual). Other penalties may apply, such as forfeiture of personal and real property used to possess or to facilitate possession of a controlled substance, denial of certain federal benefits, and revocation of certain federal licenses.

Certain federal laws may apply to unlawful manufacture, possession, and trafficking of alcohol, as well. Penalties range from fines to jail terms.

Each state and locality has laws relating to the unlawful manufacture, sale, use or possession of controlled (and/or imitation of) controlled substances and alcohol. In addition, states and localities have laws relating to driving while intoxicated or under the influence of alcohol and/or illicit drugs. Sanctions for violations may range from local citation to state law felonies. Penalties may range from small fines to jail terms, depending on the violation and past criminal history of the individual.

Alcohol use carries several risks. These include drinking/driving accidents, increased incidents of rapes and assaults, academic problems, police involvement, medical problems — including alcohol abuse and dependence and fetal alcohol syndrome — and fatalities.

Substance abuse may result in a wide array of serious health and behavioral problems. Substance abuse has both long- and short-term effects on the body and the mind. These effects may include toxicity, HIV infection with intravenous drug use, heart attack, stroke, sudden death, pregnancy complications, birth complications and defects, physical and psychological dependence, withdrawal, disruption of normal heart rhythm, high blood pressure, stroke, bleeding and destruction of brain cells, memory loss, depression, infertility, impotency, immune system impairment, kidney failure, cirrhosis of the liver, and neurological and pulmonary damage.

Redstone College provides counseling services for students seeking assistance or information concerning alcohol and drug issues. Students who wish to take advantage of this service may contact the campus director of student support.

In addition, other resources are available. Several self-help groups hold meetings throughout the metropolitan area, including Alcoholics Anonymous, Narcotics Anonymous, and Al-Anon. Individuals can contact the National Clearinghouse for Drug and Alcohol Information (800-729-6686), which is operated by the U.S. Department of Health and Human Services and staffed 24 hours a day, seven days a week. Specialists provide information and referrals.

BOOKSTORE
The college bookstore issues textbooks and student materials. Students may purchase all required books and student materials at the bookstore. Bookstore purchases may be paid by cash or check or may be charged on a student account.

CONTINUING STUDENT REGISTRATION
Students enrolled in technical programs who are continuing on to the next term are required to finalize their registration in accordance with the continuing student registration schedule at the campus.

STUDENT ID CARDS
Student identification cards are received during registration/orientation for each term. Student ID cards can also be issued through the bookstore during regular business hours. Student ID cards are required for all purchases through the bookstore. There is a nominal fee for a replacement student ID card.

VISITORS
All visitors, including a student’s guests, must register with the receptionist. Students are responsible for their guest’s behavior while visiting the campus.

INSURANCE
Students are advised that while attending the college, they are parking and attending classes at their own risk. Students should carry proper insurance to protect themselves against damage, injury and/or theft.

WHERE TO GET ANSWERS
See this department for questions about ...
EDUCATION
- Adding/dropping a class
- Advanced standing or transfer credits
- Confidential educational issues
- Disputing a grade
- Disputing attendance
- Education concerns
- Education policies/procedures
- Faculty-related issues
- Program change
- Program of study
- Withdrawing from a class
- Withdrawing from college

STUDENT FINANCE
- College loans
- Federal student loans
- Impact to financial aid eligibility due to schedule/status changes
- Program change impact on financial aid
- Scholarships
- State grants

STUDENT RECORDS
- Graduation procedure/checklist
- Print-out of class schedule
- Student records
- Transcripts
- Transfer credits if processed
- VA information
- Verification of enrollment
- Registration for continuing students
- Schedule for next term

STUDENT SERVICES
- Car pool information
- Customer service issues
- Day care information
- Enrollment information
- Entrance exams
- Housing and Collegiate Housing Services issues
- Personal concerns/issues
- Re-entering college
- Report an incident on campus
- Request for special accommodations
- Student activities
- Support systems
- Transportation schedules
CAREER SERVICES

The career services department is committed to supporting students and alumni in launching and advancing their careers.

To support students and graduates in attaining their career goals, career services staff focus on both assisting students in developing career search skills and on introducing students to businesses that may help them attain their professional goals.

Students are encouraged to participate in the events and activities that career services offers each term. Students will be given the chance to interact with local business professionals, both on- and off-campus. The more students interact with other professionals and participate in their business communities, the more prepared and positioned students will be to gain employment and be successful in their career endeavors.

Career services provided to students:

- One-on-one and small group coaching and feedback sessions
- Workshops offered either during or outside of class sessions
- Resume reviews/updates
- Mock interviews
- Career search tools and techniques
- Exposure to local business people and companies
- Networking events
- A career-focused website that provides valuable career development tools, techniques, and resources

CAREER SERVICES ADVISING

New students are introduced to career services during their first term/class at Redstone. The career services team will learn about students' professional goals and career aspirations, and will educate them on the services the career services office provides.

Students are encouraged to get to know their career services advisor and to meet with him/her regularly. The more career services advisors know about students' professional goals, the better they are able to assist them in reaching those goals. Career services advisors will work with students to conduct both general and career-related job searches, ensure that students' resume and cover letters are professional and ready to present to businesses, and to help develop their interview skills. Career services advisors will also train and coach students on how to generate their own job leads and will follow-up on their interviews to gain valuable feedback from employers.

STUDENT WORK OPPORTUNITIES

Career services advisors will work with students throughout their Redstone experience to assist them in gaining valuable business experience. Whether students are seeking general or career-related work experience, career services advisors will provide coaching, job search training, and tools to propel any job search.

If a student would like to work while attending Redstone, he/she is encouraged to seek assistance from a career services advisor to learn about both on- and off-campus employment opportunities. Upcoming graduates should plan to meet with their career services advisors five terms prior to graduating to formally kick off their career-related job search.

STUDENTS’ RESPONSIBILITIES

Students are ultimately responsible for their job search and for attaining both general and career-related employment. These responsibilities include:

...
1. Creating and executing a job search plan with their career services advisor.
2. Making and keeping regular appointments with their career services advisor.
3. Informing their career services advisor of life changes including: changes of career goals, employment status, mailing and email addresses, and contact phone numbers.
4. Completing and submitting job search materials to career services, including a cover letter, resume, and work samples, if appropriate.
5. Actively searching for jobs, which includes: attending networking events, generating business relationships, calling potential employers, applying for jobs, and following up on those applications.
6. Dressing appropriately for all company site visits, informational and formal job interviews, and arriving to all scheduled meetings and interviews on time.
7. Calling to reschedule all appointments – both on- and off-campus – if student will not be able to attend.

ALUMNI SERVICES
Career advising continues after students graduate from Redstone. Alumni are always welcome to contact the Redstone career services office for assistance conducting a job search. Students are also encouraged to take advantage of Redstone’s tuition-free retraining in their program of study after graduation. Alumni should contact the education department to learn more about how to take advantage of tuition-free retraining. Other fees, laboratory, books, etc. may apply.
ADMISSIONS PROCESS
Before being admitted to any Redstone College program, a prospective student must have an interview with an admissions representative.

Redstone College reserves the right to deny admission to any applicant and to change entrance requirements without notice.

ENROLLMENT REQUIREMENTS
To enroll at Redstone College, a student must possess a high school diploma, General Education Development (GED) certificate, or the equivalent. Students must be able to read, write, speak, and understand the English language.

Note: All GED testing must be successfully completed prior to the first day of class. Students must provide admission documents to the school by the 14th calendar day of the first day of instruction in order for them to qualify for admission to the school.

FEDERAL AVIATION ADMINISTRATION REQUIREMENTS
AIRFRAME AND POWERPLANT STUDENTS ONLY
Eligibility requirements include:

1. To be eligible for a mechanic certificate and associated ratings, a person must:
   A. Be at least 18 years of age (14CFR Part 65.71)
   B. Be able to read, write, speak, and understand the English language (14CFR Part 65.71)

ADMISSIONS REQUIREMENTS
Admission into any program requires that students meet certain admissions requirements. Applicants must provide documentation of prior education and must demonstrate proficiency in basic college-level skills. Applicants from countries where English is not the primary language spoken and applicants whose native language is not English must demonstrate English language proficiency.

Redstone will accept the student contingent upon the applicant meeting all admission requirements, as listed below. Students must complete and provide the following requirements to qualify for admission to the college:

1. An application for admission must be submitted to the college.
2. One of the following documents must be submitted to the college by the 14th day of the term:
   A. Copy or original of applicant’s high school transcript indicating that he/she has fulfilled the requirements for graduation from high school
   B. Copy or original of applicant’s recognized equivalency certificate such as the GED, or copy or original of the GED transcript, showing fulfillment of the requirements for a GED
   C. Copy of applicant’s high school diploma
   D. Copy or original of applicant’s higher learning school academic transcript which gives proof to one of the following
      ▪ Completed associate, bachelor’s or master’s degree
      ▪ Completed program of at least two years in length (90 quarter credit hours) that is acceptable for full credit toward a bachelor’s degree
   E. Copy of applicant’s certificate of completion of a home school program if the applicant’s home state recognizes the home school. Documentation of the state’s recognition must be evidenced in the applicant’s records
ADMISSION OF NON-NATIVE SPEAKERS OF ENGLISH

Applicants from countries where English is not the primary language spoken and applicants whose native language is not English must demonstrate English-language proficiency by providing the school with one of the following:

- A Test of English as a Foreign Language (TOEFL) test score of 475 or higher on the paper-based test or 153 or higher on the computer-based test, or 53 or higher on the internet-based test (TOEFL iBT)
- An International English Language Testing System (IELTS) score of 4.5 or better
- A Michigan English Language Assessment Battery (MELAB) score of 70 or better
- Proof of completion of an accredited college program in the United States
- A high school diploma or GED in the United States
- A high school or college diploma from a country* which uses English as the language for education
- Verification of a high school transcript from a school which uses English as the main language of instruction
- Official documentation demonstrating successful completion of an English language program of study and/or English language proficiency exam as explicitly defined in a written cooperative agreement between the college and a Redstone College-approved English language school. For a complete list of Redstone College-approved English language schools with which the college has cooperative agreements, please see the ADMISSIONS section of the Redstone College website at http://www.redstone.edu/admissions/

Redstone’s campus academic dean will determine a student’s English-proficiency status by reviewing one or more of the above documents. Questions pertaining to this policy should be directed to the college’s director of campus operations.

*Approved countries that use English as the language for education are Antigua, Australia, Bahamas, Barbados, Belize, Bermuda, Botswana, Canada, Ethiopia, Falkland Islands, Gambia, Ghana, Great Britain, Grenada, Guyana, India, Ireland, Jamaica, Kenya, Liberia, Micronesia, New Zealand, Nigeria, Sierra Leone, St. Kitts, St. Lucia, Solomon Islands, The Philippines, Trinidad, Uganda, United States, Zambia, and Zimbabwe.

CANCELLLED ENROLLMENTS

If applicants do not complete Redstone’s enrollment process in a timely manner, or if they cancel after enrolling but prior to beginning class, they may have their application cancelled. Approvals for all requests of postponed start dates must be made by the director of admissions or a college official. Refer to the current enrollment agreement for the information regarding the application refund policy.

RETURNING STUDENTS

A student who returns to college within six months or less of his/her last day of attendance does not need to complete a new application or enrollment agreement unless there has been a program change. However, a returning student whose start date is beyond six months of his/her last date of attendance is required to complete the following documents:

- Enrollment agreement
- Release of student information form for FERPA
- Arbitration agreement
- Program disclosure

Students who withdraw from college must be aware that if a program is changed during their withdrawal period, they will automatically be entered into the new version of the program. If this occurs, a new enrollment agreement is required. A program change may include credit hours, program length or content. Exceptions may be approved on a case-by-case basis, based upon a student’s expected graduation date and program.

RE-ENROLLMENT

If an individual does not start class in the term for which he/she originally applied for admission, the application will remain valid for six terms. This includes the current term applied and the five subsequent terms. To renew the application process, the student must re-apply with his/her admissions representative and new application documents will be required.

LATE ADMISSION

Classes start on the date indicated in the ACADEMIC CALENDAR in this catalog. Late starts are considered on an individual basis after assessing a student’s ability to make up the work that has been missed. Under no circumstances, however, will a student be allowed to enter class no more than 10 percent of scheduled class hours for the term for the A&P program without the permission of the campus president.

ADVANCED STANDING – TECHNICAL PROGRAMS

There are a number of ways to achieve advanced standing at Redstone, including:

1. Transfer credits from accredited colleges and universities
2. Articulation agreements with selected high schools and colleges
3. Passing grades on proficiency exams provided by Redstone College, primarily in general education subjects
4. Advanced placement exams, College Level Examination Program (CLEP) exams, or nationally recognized certification exams
5. Military credit based upon ACE recommendations
Students should be aware that receiving advanced standing may affect their financial aid eligibility and graduation date. For more information on advanced standing, please see the ACADEMICS – TECHNICAL PROGRAMS section of this catalog.

ADVANCED STANDING – A&P PROGRAM
The A&P program chair will determine credit for previous training according to the rules and regulations established by the accrediting bodies and the Federal Aviation Administration. The policy for the granting of previous training shall not impact the refund policy.

POSTPONEMENT OF A STARTING DATE
Postponement of a starting date, whether at a student’s request or at the request of the college, requires a written agreement by both the student and the college. The agreement must set forth:
1. Whether the postponement is for the convenience of the college or the student
2. A deadline for the new start date, beyond which the start date will not be postponed

NON-DISCRIMINATION POLICY
Redstone College does not discriminate on the basis of race, color, religion, national origin, gender, age, sexual orientation, or disability. Redstone complies with the Civil Rights Act of 1964, related Executive Orders 11246 and 11375, Title IX of the Education Amendments Act of 1972; Sections 503 and 504 of the Rehabilitation Act of 1973; Section 402 of the Vietnam Era Veterans’ Re-adjustment Assistance Act of 1974; Americans with Disabilities Act; and all civil rights laws of the states of Colorado, California, Illinois, Texas, Georgia and other states from which Redstone College enrolls students. Accordingly, equal opportunity for employment and admission will be extended to all persons, and the institution will promote equal opportunity and fair treatment.

INFORMATION FOR VETERANS
Select programs at the Redstone campus are approved for the training of veterans. Please ask the college’s Veterans Administration (VA) representative about specific programs.

CREDIT EVALUATION POLICY
Students receiving veteran’s benefits must have all prior education and training evaluated upon enrollment. Credit will be awarded where applicable with the program being shortened accordingly. Documentation of credit evaluation will be maintained in the veteran file.

PROGRESS POLICY
Progress will be monitored at the end of the evaluation period for all students receiving veteran’s benefits. If the student’s CGPA falls below 2.0, or if progress falls below 66.67 percent of cumulative credits attempted at the end of any given evaluation period, the student will be placed on probation for the next two evaluation periods. If the student’s CGPA is not raised to at least 2.0, or if progress continues below 66.67 percent of cumulative credits attempted by the end of the probation period, the VA will be notified and benefits will be interrupted.

STUDENTS APPROVED FOR GOVERNMENT/ TRIBAL FUNDING
If a student is currently approved for government or tribal funding for college costs or living expenses, he/she must inform the campus student finance and business offices. Examples of funding sources include Native American tribes, Bureau of Indian Affairs, VA, Vocational Rehabilitation, Worker’s Compensation, Social Security, job retraining, and Workforce Investment Act (formerly JTPA) programs.
GENERAL INFORMATION

Redstone College firmly believes that access to education beyond high school is the right of every individual. Lack of financial resources should not be a barrier to this preparation. Therefore, Redstone is an eligible institution participating in federal financial aid programs. Financial aid is available to those who qualify.

The purpose of financial aid is to assist those students who, without such aid, would be unable to attend college. The primary responsibility for meeting the costs of education rests with a student and his/her family. Financial aid funds are available to supplement whatever funds a student and his/her family can reasonably provide. Early application is encouraged to ensure availability of funds. Students should complete the financial aid application upon enrollment, and they will be notified of funding by a college official.

Each student is initially processed for financial aid based on the standard enrollment status as defined by the college for each particular program. Eligibility and disbursements of financial aid may change based on enrollment status each term. Because of federal financial aid regulations (excluding Pell), students whose enrollment status is less than half-time will have zero financial aid eligibility for that term. Due to these eligibility requirements, it is extremely important that students work with their program chair to ensure full-time enrollment status each term. A change from full-time enrollment status could cause a loss of financial aid eligibility and create a cash pay situation for some students. Please consult a student finance advisor with any questions regarding enrollment status and financial aid eligibility.

TUITION, CHARGES AND MATERIALS/TOOL KITS

A complete listing of tuition and charges (accident insurance, uniforms, etc.) is contained in a catalog addendum. The tool kits, textbooks, and supplies may be purchased through the college or from an outside supplier, but must meet the requirements of the college. The college reserves the right to adjust tuition rates at the beginning of any academic term/payment period, but such increases will be announced at least 60 days in advance.

Tuition is charged every term/payment period based on a student’s enrollment status for that term/payment period. Students should review their enrollment agreement or contact the student finance office for information about the charges for each program. Tools are charged to a student’s account in the term in which the tools are issued. Technical program books will be charged to a student’s account when issued each term. The amount of the charges will be based on current book prices. Charges to a student’s account (tuition, tools, and/or books) must be paid by the end of each term for technical programs, either by financial aid, agency payments, cash payments, or through the college’s financing program. The tool kit, textbooks, and supplies may be purchased through the college or from an outside supplier, but must be the tool kit, textbooks, and supplies required by the college. Students who have tools which meet the requirement for suitability will receive credit for the tool kit price (see appropriate program chair). A complete list may be obtained from the program chair.

If a student has delinquent cash or college financing program payments, he/she will not be allowed to attend classes for the next or future terms/payment periods until the account is brought current. Questions or concerns regarding an account or college financing program should be directed to the student finance office.

STUDENT INSURANCE

Students are covered by a mandatory group accident insurance policy for a mandatory additional fee (see catalog addendum) for the duration of their enrollment. Health
insurance is also available (on an optional basis). Contact the executive assistant for the cost.

**STUDENT UNIFORMS**

Student uniforms are mandatory. Students will be issued uniforms during their first class.

**EVALUATION PERIOD**

New students are subject to a 14-calendar-day evaluation period at the beginning of the term/payment period during which Redstone College will evaluate the student’s readiness to engage in his/her academic program. Factors that will be considered by the college will be attendance during the first two weeks of classes, academic progress and completion of the student finance process. In the event that the college determines that the student is not prepared to start his/her program of study, the student will be dismissed from all classes and will not be subject to any charges for tuitions and fees other than any books that are not returned.

**FINANCIAL AID AVAILABLE**

**GRANTS**

**Federal Pell Grant (FPELL)**

This federal student grant program is designed to provide assistance to any eligible undergraduate student pursuing post-high school education. The value of the award currently varies from $0 to $5,730, depending on the financial need of the student and costs of the institution. Grant amounts may vary from year to year, depending upon federal regulations. This program is the foundation for most financial awards. All students who are eligible may receive a Federal Pell Grant for no more than 12 semesters or equivalent (roughly six years).

**Federal Supplemental Educational Opportunity Grant (FSEOG)**

This federal student grant program is intended to assist undergraduate students who have been determined to have financial need. It is available only to those students who also qualify for the federal Pell grant.

**Colorado Student Grant (CSG)**

This state student grant program is intended to assist undergraduate Colorado residents determined to have financial need.

**LOANS**

**Direct Subsidized Loan**

This program is a low interest rate, long-term loan program for undergraduate students who have demonstrated financial need. The maximum a student may currently borrow is $3,500 for the first academic year of study, $4,500 for the second academic year, and $5,500 for subsequent years. Direct Subsidized loans are capped at a 3.86 percent interest rate with a 1.072 percent origination fee for loans first disbursed between July 1, 2013 and June 30, 2014. Repayment is required to begin six months after the student completes or terminates his/her education or becomes less than a half-time student. Students will be responsible for paying any interest that accrues during the six-month grace period after leaving school. If the student chooses not to pay the interest that accrues during the grace period, it can be added to the principle balance of the loan.

**Direct Unsubsidized Loan**

This is a federal loan program designed to allow students who do not qualify for federal interest subsidies under the federal direct loan program to obtain an unsubsidized loan. The maximum amount an independent student may currently borrow is $6,000 in addition to the federal Direct Subsidized loan for the first and second academic years and $7,000 for subsequent years.

If a student does not qualify for a Direct Subsidized loan or some portion of that loan, he/she may borrow the remaining amount under this program. The interest on this loan is also capped at 3.86 percent with a 1.072 percent origination fee for loans first disbursed between July 1, 2013 and June 30, 2014. Payment may be deferred until six months after the student no longer attends college or becomes less than a half-time student. Interest accrues on Direct Unsubsidized loans during all periods. If a student chooses not to pay the interest that accrues during these periods, it can be added to the principle balance of the loan.

**Federal Perkins Loan**

This is a low interest rate, long-term loan program available to students who have demonstrated need for such funds. Perkins loans currently carry a 5 percent interest rate. The maximum a student may be eligible to borrow is $5,500 per award year. Repayment is not required until nine months after students complete their education or fall below half-time status.

**Direct PLUS Loans**

This is a competitive interest rate loan that provides additional funds to help parents pay for the educational expenses of a dependent student. The interest rate for this non-need-based loan is market driven with a cap of 6.41 percent with an origination fee of 4.288 percent. Repayment begins approximately 60 days after the first disbursement of the loan, which is subject to the policies of the individual lender. In most cases, the maximum amount is based on the student’s estimated cost of attendance minus any estimated financial assistance the student has been or will be awarded during the academic year.

**APEX Financing**

APEX is an institutional financing program offered by Redstone College. APEX financing is available to new and continuing
students who have exhausted all other funding sources, including federal student loans and grants. Application materials, which include terms, conditions and required disclosures, will be supplied by the campus student finance office once eligibility has been determined. The interest rate for APEX financing is 6 percent.

Any APEX financing will be credited directly into the student’s account and applied toward the direct cost of the student’s attendance. A corresponding balance will be created in the student’s APEX account. Direct cost of student attendance includes tuition, tool kits, and books. If eligible, the APEX financing may be applied for on an annual basis following the application of all financial aid.

SCHOLARSHIPS

New Student Scholarships
Various campus scholarships may be available for eligible new students who meet specific scholarship criteria provided by the campus. Contact campus administration for more details.

High School Scholarship Program
The High School Scholarship program is intended to recognize motivated high school seniors and to encourage their pursuit of advanced career-focused higher education in the field of their choice. There are three high school scholarship categories:

- **President’s Scholarship**: The award amount includes full tuition, fees and books. There are two President’s Scholarships available at Redstone College.
- **AV/A&P/WET/HVAC Scholarships**: The award amount is $5,000 for an associate degree program and $2,500 for a diploma program. There are two scholarships per program available.
- **Redstone Scholarship**: An award of $1,500 is offered to one senior per high school or two seniors at high schools with a population of more than 400 seniors.

Scholarship Terms and Conditions
- Must be a 2014 high school senior
- Must be enrolled in a Redstone College degree or diploma program (certificate programs and employee waivers are not eligible)
- Must meet all admissions requirements to Redstone College as outlined in the current college catalog

Application Requirements
1. All information requested on the scholarship application must be complete and legible. Students must sign the application, and an email address is required for notification of receipt.
2. The most current available high school transcript at the time of application must be submitted and must state a students’ current grade point average (GPA). The President’s and AV/A&P/WET/HVAC scholarships require a minimum GPA of 3.0.

The Redstone scholarship requires a GPA of 2.5 or the student must be recommended by a high school educator, counselor, administrator, community leader or employer.

3. A completed letter of intent, as introduced to the student by his/her admissions representative at the time of application.
4. A 250-word personal essay must be submitted legibly and written in ink or typewritten by the applicant, explaining the reasons for pursuing career-focused higher education in his/her program of choice at Redstone College. This is not required for the Redstone scholarship.
5. A letter of recommendation from an educator, community leader or the student’s employer. The letter of recommendation must be typed or written in ink on school or company letterhead and must display the name, address, phone number and email address of the person making the recommendation. This is not required for the Redstone Scholarship.

Submission Procedure
All materials and supplementary documents must be submitted together in one envelope with copies kept by the applicant. Incomplete application packets will not be accepted. The envelope must be received by the scholarship administration on or before the deadline printed on the application. The submissions deadline is May 31, 2014. The award date is July 1, 2014.

Redstone Scholarship Distribution
1. For a student to be eligible for any of the Redstone scholarship disbursements, he/she must complete at least 60 percent of the term of study with a GPA of 2.5 or higher for each term of disbursement.
2. If a student withdraws after the 60 percent timeframe, he/she will receive a pro-rated amount of the scholarship based on the percentage of tuition charged pursuant to the refund policy outlined in the college catalog.
3. Maximum disbursement is as follows:
   A. School of AV/A&P/WET/HVAC funds will be distributed in equal disbursements per term
   B. Redstone Scholarship funds will be distributed in equal disbursements per term
   C. President’s Scholarship funds will be distributed equally up to the current tuition and fees charged per academic term
Imagine America Scholarship
The Imagine America scholarship is designed to assist students with education-related costs at a career college. Only recent high school graduates who meet the following guidelines will qualify:

1. Likelihood of successful completion of post-secondary education
2. High school grade point average of 2.5 or greater
3. Financial need
4. Demonstrated voluntary community service during senior year
5. Military Award Program (MAP)
6. Prospective MAP applicants must meet the following guidelines to apply:
   A. Enroll in a participating college
   B. Active duty, reservist, honorably discharged or retired veteran of the U.S. military
   C. Likelihood of enrolling and successfully completing post-secondary education
   D. Not be a previous recipient of any other Imagine America Foundation scholarships/awards
   E. Financial need (students fully funded by Chapter 33/Post 9/11 GI Bill are not eligible)

No more than two scholarships will be awarded per class start.

Aircraft Electronics Association Educational Foundation (AEA)
The AEA will review all applicants for the Thomas J. Slocum Memorial Scholarship and choose the award winners. This award will be given each year in the amount of $1,000. Funds are available to students who plan to attend college in the Avionics program only. These scholarships are for tuition only. All other costs (tools, fees, room and board) are the student’s responsibility. The scholarships are available to new students or to continuing education students enrolled in the AV program at Redstone College.

National Guard Youth ChalleNGe Academy Redstone Scholarship Program
The National Guard Youth ChalleNGe Academy scholarship program is intended to recognize motivated academy cadets and to encourage their pursuit of advanced career-focused higher education in the field of their choice. The scholarship award will contribute directly to the tuition for the program selected by the recipient. The Redstone College award in the amount of $1,500 is limited to one graduate per participating location twice annually.

The National Guard Youth ChalleNGe Academy scholarship is offered only through current ChalleNGe Academy Education Alliance members. For a list of participating locations, please contact the admissions department.

Terms and Conditions
1. Must be graduating from a National Guard Youth ChalleNGe Academy program.
2. Must be enrolled in a Redstone degree program (diploma programs and employee waivers are not eligible).
3. Must have completed and received a high school diploma or GED which may be earned through the National Guard Youth ChalleNGe Academy.
4. Must be recommended by an educator, counselor, administrator, community leader or employer.
5. Must meet all admissions requirements to the college as outlined in the current academic catalog.
6. Student is eligible to receive the National Guard Youth ChalleNGe Academy scholarship or the Redstone College High School scholarship, but not both.
7. In the event the number of scholarship applicants exceeds the number of established potential scholarships per location, the scholarship award will be determined by an independent review panel from the particular National Guard Youth ChalleNGe Academy.

Application Requirements
Prospective students may obtain a scholarship application from an admissions staff member or by downloading an application from the college website at www.redstone.edu.

1. All information requested on the scholarship application must be complete and legible. The application must be signed by the applicant and an email address is required for notification of receipt. Applications must be submitted no later than 30 days prior to the published ChalleNGe graduation day.
2. 2. A 250-word personal essay must be submitted legibly and written in ink or typewritten by the applicant explaining how his or her achievement of character, work ethic and academic standing at the ChalleNGe Academy has prepared the student to pursue a career-focused higher education at Redstone College.
3. 3. The applicant must submit a letter of recommendation from an educator, counselor, administrator, community leader or the student’s employer. The letter of recommendation must be typed or written in ink on school or organization letterhead and must display the name, address, phone number and email address of the person making the recommendation.

Submission Procedure
All materials and supplementary documents must be submitted together in one envelope with copies kept by the applicant. Incomplete application packets will not be accepted. The envelope must be received by the scholarship administration on
or before the twice-annual established deadline. Application packets will be accepted later than the deadline only if post-
marked at least five business days prior to the deadline.

**Housing Scholarship**
This scholarship will:
- Be equal to two months’ rent
- Not exceed $1,000
- Be limited to new start students and limited to two students per class start. The students will be required to pay their own application/deposit fees
- Be based upon financial need (Pell-eligible)
- Not be able to be used in conjunction with any other Redstone scholarship (includes MAP, Imagine America, Redstone and AEA)
- All funds will be paid directly to the housing complex or landlord

**Application Guidelines**
1. The student must submit a 200-word essay to the director of campus operations stating why he/she would be a good candidate for Redstone College
2. The essay must be received no later than two weeks prior to the class start to be considered
3. The student must have applied for housing and be able to provide documentation of a lease or rental contract
4. The student must have completed financial aid requirements and submitted his/her proof of high school graduation

**Redstone College Matching Scholarship**
The Redstone College Matching Scholarship program exists to encourage students to take control of financing their education by seeking out and earning third-party scholarships. Listed below are requirements and guidelines for participating in the Redstone College Matching Scholarship program.

**Redstone College Matching Scholarship Program Policies**
Redstone will match any third-party scholarship dollar-for-dollar up to $250 per academic term/payment period* and up to $2,000 in total matching funds for the life of a program. Qualifying scholarships must be publicly advertised and available to a broad audience.

Redstone College will match any third-party scholarship, providing the following criteria are met:
1. The student must submit his/her scholarship application and award letter to the student finance office in order to be eligible for the matching fund. The scholarship letter must describe how the scholarship will be awarded, i.e., total payment upon enrollment, by academic year, calendar year, other.

2. Scholarships by Redstone College or created by an industry partner include, but are not limited to, the following and are not eligible for the Redstone Matching scholarship:
   - Imagine America scholarships
   - CACCS scholarships
   - AEA – Thomas J. Sclocon Memorial Scholarship

3. Any benefits from current or past employment or contracts (e.g., tuition reimbursement) are exempt from the Redstone Matching Scholarship program.

4. To receive matching funds, a student must be in good academic standing (not on Satisfactory Academic Progress) as described in the ADMISSIONS section of the academic catalog.

5. A student must be continuously enrolled full time at Redstone College. If he/she drops, takes a leave of absence, or graduates from his/her Redstone College program, the Redstone College Matching Scholarship will no longer be awarded.

6. The amount of the Redstone College Matching Scholarship will be added to a student’s total income in calculating financial aid awards and may lower the amount of a financial aid award, i.e., loan eligibility or Pell grants.

7. The Redstone Matching Scholarship is effective for third-party scholarships awarded on or after June 1, 2010.

8. If a student falls to less than full-time status due to classes not being available, the Matching Scholarship will be maintained.

9. If a student falls to less than full-time status due to his/her own scheduling choice, the Matching Scholarship will not be maintained.

*Academic term equals 10 weeks and 12 credits. Payment period is equal to 450 clock hours. If the third-party scholarship completely covers an academic year’s cost of attendance, the Redstone Matching scholarship award will carry over to the following term/payment period.

**Continuing Education Scholarships**
Various campus scholarships may be available for eligible continuing students who meet specific scholarship criteria provided by the campus. Contact the student finance office for more details.

**Terms and Conditions**
- Full-time enrolled Redstone student
- Student must be in good standing and meet Redstone College’s standards of academic progress
- Application must include cumulative grade point average (CGPA)
OTHER PROGRAMS

Federal College Work-Study Program
Redstone participates in the Federal College Work-Study program with award amounts based on demonstrated need. This program is designed to provide part-time employment to enable students to earn money to fund their education. Students employed under the Work-Study program are generally limited to 20 hours per week during the regular academic period. A student may be authorized to work more hours during vacation periods. Wages vary, depending on the type of work and skill experience required.

Other Aid Programs
A student may, if eligible, receive funds to meet educational costs from Veterans Administration benefits, Social Security, the Workforce Investment Act, the Bureau of Indian Affairs, the Division of Vocational Rehabilitation, Worker’s Compensation, employee tuition waivers, and other organizations and agencies providing scholarships and grants. Please contact the student finance office regarding these funding sources.

Monthly Payment Plans
Independent students or parents of dependent students who do not qualify for financial aid or who do not wish to apply for educational loans may make monthly tuition payments to finance educational costs. A late fee of $25 may apply. These arrangements may be made with the student finance office or with the business office. This plan is available at all campuses and is not based on need.

APPLICATION PROCEDURE
The application for financial aid involves the following procedures:

1. A student must submit the enrollment paperwork with the specified charges.
2. The necessary financial aid paperwork may be completed with the assistance of a qualified student finance advisor.
3. The student finance office utilizes a needs analysis system to determine eligibility for financial aid programs.
4. The Institutional Application for Financial Aid, the Free Application for Federal Student Aid (FAFSA), and other documents are reviewed by the student finance office at the time of a student’s interview, and at the time the student’s eligibility is determined. A college official will review available funds and discuss tuition payment plans.

STUDENT ELIGIBILITY
Participants in federal and state aid programs must:

1. Be a U.S. citizen or eligible non-citizen.
2. Be enrolled as a regular student in a degree, diploma, or certificate program.
3. Maintain satisfactory academic progress. Non-citizens are required to verify eligibility with the student finance office.

Students who are required to register with Selective Service must be registered in order to receive financial aid. Additional documentation may be required.

DETERMINING STUDENT NEED
Financial need equals the difference between the stated costs of attending the college minus the resources available to the student. Stated costs may include tuition, charges, books, supplies, room, board, personal expenses, transportation, and the related expenses of a student’s dependents. Resources include parental contributions (if depen-
a student’s earnings, spouse’s earnings, welfare, savings, assets, and other taxable or nontaxable income. In addition, a student may be expected to provide a reasonable monthly payment from savings or earnings toward meeting the cost of his/her education.

Through the use of the estimated family contribution calculated by the federal government, a determination is made of the amount of funds the financial aid students and/or their parents can contribute toward meeting educational costs. Students with a demonstrated need, as calculated by the student finance office, will receive consideration for assistance.

DURATION OF AWARDS
All financial aid awards are made for an academic year (or less). These awards are usually posted to a student's account on a payment period basis. To continue receiving an award, a student must:

- Be in good standing with the school
- Continue to demonstrate financial need
- Maintain satisfactory academic progress
- Complete all required financial aid applications each academic year

Continuing awards are contingent upon adequate funding of federal and state financial aid programs.

GRADE LEVEL DEFINITION
A student’s eligibility to continue receiving financial aid is defined by grade level restrictions. A student in an eligible program may receive federal student loans for subsequent years. The criteria for eligibility are as follows:

1ST LEVEL
Students enrolled in an eligible program may progress to a higher level of eligibility after completing 36 credit hours and 30 weeks or 900 clock hours.

2ND LEVEL
Students enrolled in an eligible program should progress to the second year funding, provided that 36 credit hours and 30 weeks have been completed, or an additional 900 clock hours. Approved transfer credits may justify progression to the next year.

3RD LEVEL
Students enrolled in an eligible program may progress to the third level after completing 72 credit hours and 60 weeks, or 1,800 clock hours. An associate degree or its equivalent may justify progression, provided approval is given by the program chair.

ACADEMIC YEAR
An academic year is defined as a minimum of 30 weeks of classes (or three terms of 10 weeks each) and 36 credit hours or 900 clock hours. Associate degree programs are typically two or 2 1/3 academic years.

SATISFACTORY ACADEMIC PROGRESS STATEMENT
Satisfactory academic progress (SAP) is necessary to maintain eligibility for Title IV and state-funded assistance programs. See the complete SAP policy in the ACADEMICS – JOINT POLICIES section of the catalog for more information.

FINANCIAL AID IMPLICATIONS
PROBATION
If a student falls below the SAP criteria listed in this catalog, consultation with a college official may be scheduled. At that time, the student may be placed on probation, during which Title IV and state funds may be disbursed. At the end of the probationary period, if a student has not satisfied the specified requirements, financial assistance may be withheld.

WITHDRAWALS AND REPETITIONS
Students with withdrawals and repetitions are eligible to continue receiving financial aid if the following conditions are met:

1. Students are otherwise making satisfactory progress.
2. The time needed to make up the incomplete course work is within the program maximum time frame.

MAXIMUM TIME FRAME
To remain eligible for federal and state funds, a student must complete his/her program within the maximum time frame, defined as one-and-one-half times the standard duration of the program, in credit hours for technical programs and in courses for aviation programs.

REINSTATEMENT OF FINANCIAL AID ELIGIBILITY
If a student has lost eligibility for financial aid, he/she may be reinstated by improving his/her academic standing to meet the minimum standards of the satisfactory academic progress policy.

In cases of extenuating circumstances, special arrangements may be made on an individual basis. See the student finance office for more details.

NATIONAL STUDENT LOAN DATA SYSTEM
Redstone College reports information regarding students’ enrollment statuses and other important financial aid statuses directly to the National Student Loan Data System (NSLDS) on a continuing basis.

NOTICE TO APPLICANTS OF FINANCIAL AID
An offer of financial aid is contingent upon receipt of funds from all funding sources. The student finance office reserves the right to revise offers of financial aid at any time during the academic year based on availability of funds and/or procedures mandated by the state or federal authorities. Pursuant to the
Privacy Act of 1974, applicants for student financial aid are hereby notified that the disclosure of their Social Security number is required to verify the identity of each applicant.

EDUCATIONAL PURPOSE
Any funds received under the federal Pell ACG and Smart grant, the Federal Supplemental Educational Opportunity grant, state grants, the federal College Work-Study program, the federal Perkins (National Direct) student loan program, or the Stafford (guaranteed/federally insured) loan programs are to be used solely for expenses related to attendance or continued attendance at the college. The student is responsible for repayment of a prorated amount of any portion of payments made which cannot reasonably be attributed to meeting educational expenses related to the attendance at the college.

The amount of such repayment is to be determined on the basis of criteria set forth by the U.S. Department of Education and the appropriate state agency.

RETURN OF TITLE IV
Title IV funds are earned in proportion to the percentage of the payment period that is completed, with 100 percent of the funds awarded after 60 percent of the payment period is completed. For instance, if the payment period lasts 100 days, 100 percent of the Title IV funds are earned after 60 days are completed. If a student withdraws from college after 60 percent of the payment period is completed, Title IV funds are not required to be returned.

If a student withdraws prior to completion of 60 percent of the payment period, the college must determine if the Title IV funds the student has received exceed the amount earned. This calculation is based on the number of days completed in the payment period as of the student’s withdrawal date. If the amount he/she received exceeds the amount earned, the college must return the excess funds to the Title IV programs in the sequence mandated by the U.S. Department of Education.

The normal refund calculations will be applied after the Title IV return calculation has been made. Please contact the student finance office or the business office with any questions about this policy for complete examples.

DEFINITIONS
1. **Academic year**: A period of enrollment not less than 30 weeks in length and, for students enrolled in the A&P program, 900 clock hours.
2. **Last day of attendance**: The last day a student physically attends class.
3. **First-time student**: A student who has not previously attended Redstone College and who has not previously incurred institutional charges.
4. **Administrative charge**: A charge to the student which defrays the cost of processing his/her withdrawal.
5. **Period of enrollment**: The time frame for which a student has been charged.
6. **Payment period**: The time frame in which a student earns Title IV disbursements.

MINIMUM CANCELLATION AND SETTLEMENT POLICY
All refund requests must be in writing and by mail.

The following policies apply:
1. All monies a student paid are refunded if requested within seven calendar days after signing an enrollment agreement or making an initial payment.
2. If a student requests cancellation more than seven days after signing an enrollment agreement or making an initial payment but prior to touring or visiting the college, the student is entitled to a refund of all monies paid to the college.
3. If a student has signed an enrollment agreement but not toured the campus before the first day of class and requests cancellation within 72 hours of a tour of the campus and facilities/equipment (or within 72 hours of attending a scheduled orientation), the student is entitled to a full refund.
4. If a student is rejected by the college, he/she is entitled to a refund of all monies paid.
5. Examples of the application of Redstone College refund policies are available in the business office.

STATE REFUND POLICY
STATE OF COLORADO REFUND POLICY
Refunds must be calculated from the last date of recorded attendance. The following calculations reflect this policy:
1. A full refund of all monies paid if a student is not accepted by the college.
2. A full refund of tuition and fees paid if a student withdraws within seven days after signing the enrollment agreement or making an initial payment, provided that the student has not attended an orientation, toured the campus, or commenced training.
3. A full refund, without penalty, if a student withdrew within seven business days following his/her visit to the college and/or regularly scheduled orientation.
4. A full refund of tuition and fees paid in the event that the college discontinues a course or program of education during a period of time within which a student could have reasonably completed the same, except that this provision shall not apply in the event that the college ceases operation.
5. The policy for cancellation, settlement, and refund of tuition and fees provides for at least the following:

A. If a student terminates within the first 10 percent of the term, he/she shall be entitled to a refund of 90 percent of the term price, exclusive of books, tools, and supplies.

B. If a student terminates after 10 percent but within the first 25 percent of the term, he/she shall be entitled to a refund of 75 percent of the term price, exclusive of books, tools, and supplies.

C. If a student terminates after 25 percent but within the first 50 percent of the term, he/she shall be entitled to a refund of 50 percent of the term price, exclusive of books, tools, and supplies.

D. If a student terminates after 50 percent but within the first 75 percent of the term, he/she shall be entitled to a refund of 25 percent of the term price, exclusive of books, tools, and supplies.

E. If a student terminates after completing 75 percent of the term, he/she shall not be entitled to any refund and shall be obligated for the full term price, which constitutes maximum obligation, exclusive of books, tools, and supplies.

F. The above calculations are performed on a term-by-term basis as determined by the particular term in which a student withdrew. All previous terms will be charged in full.

G. The resource fee is treated as part of the tuition for refunding purposes.

6. A student may return his/her books and/or tools (not opened software or software subscriptions) to the college for a refund upon withdrawal. Only if a student’s books and/or tools are judged to be in excellent condition will he/she receive a refund (or credit, if applicable — depreciated value to the student’s account).

This offer is for seven calendar days from the effective date of withdrawal.

7. The effective date of termination (cancellation/withdrawal) is defined as any one of the following:

A. The date of receipt of a student’s notification

B. The date the institution determines the student is no longer attending

C. For the purpose of calculating the refund, a student’s LDA is the last day he/she has demonstrated completion and has submitted the unit assignment(s)

8. All refunds will be paid within 30 days from the effective date.

STATE OF ILLINOIS REFUND POLICY
(Ilinois Residents Only/A&P Students Only)
When notice of cancellation is given:

1. Before midnight on the fifth business day after the date of enrollment but prior to the first day of class, registration fee, tuition, and any other charges shall be refunded to the student.

2. After midnight on the fifth business day following acceptance but prior to the close of business on the student’s first day of class attendance, the college may retain no more than the registration fee which may not exceed $150 or 50 percent of the cost of tuition, whichever is less.

3. After the student’s completion of the first day of class attendance, but prior to his/her completion of 5 percent of the course, the college may retain the registration fee plus an amount not to exceed 10 percent of the tuition and other instructional charges of $300, whichever is less, plus the cost of books or materials which have been provided by the college; provided, however, the college must refund any book and materials fees when:

   A. The book and materials are returned to the college unmarked

   B. The student has provided the college with a notice of cancellation

4. After completion of 5 percent of the course, the college may retain the registration fee and the cost of books or materials which have been provided by the college and will refund to the student a portion of tuition and other charges equal to at least the largest of the amounts provided under the college’s refund policy as described in the enrollment agreement or provided as follows:

   A. The college will retain an amount computed pro rata by days in class plus 10 percent of tuition and other instructional charges up to completion of 60 percent of tuition and other instructional charges up to completion of 60 percent of the course of instruction. When a student has completed in excess of 60 percent of the courses of instruction, the college will retain the registration fee and the entire tuition and other charges. The difference will be refunded to the student.

   B. The student may give notice of cancellation to the college in writing. The unexplained absence of a student from college for more than 15 school days shall constitute constructive notice of cancellation to the college. For purposes of cancellation, the date shall be the last day of attendance.

5. The college will mail a written acknowledgement of a student’s cancellation or written withdrawal to the student.
within 15 calendar days of the postmark date of notification, unless a refund has been mailed to the student within the 15 calendar days.

7. A college shall refund all monies paid to it in any of the following circumstances:
   A. The college did not provide the prospective student with a copy of the student’s valid enrollment agreement and a current catalog.
   B. The college cancels or discontinues the course of instruction in which the student has enrolled.
   C. The college fails to conduct classes on days or times scheduled, detrimentally affecting the student.

8. A student, who on personal initiative and without solicitation, enrolls, starts, and completes a course of instruction before midnight on the fifth business day after the enrollment agreement is signed is not subject to the cancellation provisions.

All Illinois refunds will be made within 30 days of nonacceptance, or from date of receipt of the student’s cancellation, or 60 days from the last day of attendance, whichever is earlier.

All refunds will be made within 45 days of non-acceptance, or from date of receipt of a student’s cancellation, or 60 days from the last day of attendance, whichever is earlier.

The college will mail a written acknowledgement of a student’s cancellation or written withdrawal to him/her within 15 calendar days of the postmarked date of notification, unless a refund has been mailed to the student within the 15 calendar days. The effective date for a student who is on an excused leave or leave of absence is the earlier of the date the college determines the student is not returning or 30 days from the expected return date.

STATE OF NEW MEXICO REFUND POLICY

Payment of Tuition and Fees; Refunds of Tuition and Fees

1. Cooling off period: Any student signing an enrollment agreement or making an initial deposit or payment toward tuition and fees of the institution shall be entitled to a cooling off period of at least three work days from the date of agreement or payment or from the date that the student first visits the institution, whichever is later.

During the cooling off period, the agreement can be withdrawn and all payments shall be refunded. Evidence of personal appearance at the institution or deposit of a written statement of withdrawal for delivery by mail or other means shall be deemed as meeting the terms of the cooling off period.

2. Refunds prior to commencing instruction: Following the cooling off period but prior to the beginning of instruction, a student may withdraw from enrollment, effective upon personal appearance at the institution or deposit of a written statement of withdrawal for delivery by mail or other means, and the institution shall be entitled to retain no more than $100 or 5% in tuition or fees, whichever is less, as registration charges.

A. In the case of students enrolling for non-traditional instruction, a student may withdraw from enrollment following the cooling off period, prior to submission by the student of any lesson materials and effective upon deposit of a written statement of withdrawal for delivery by mail or other means, and the institution shall be entitled to retain no more than $100 or 5% in tuition or fees, whichever is less, as registration charges or an alternative amount that the institution can demonstrate to have been expended in preparation for that particular student’s enrollment.
B. Upon request by the student or by the department, the institution shall provide an accounting for such amounts retained under this standard within five work days.

3. Refunds following commencement of instruction. An institution licensed by the department shall adhere to either the following tuition refund schedule or to a schedule established by the institution’s accrediting body and recognized by the U.S. Department of Education. Exceptions may be made on a case-by-case basis by the department or its designee.

4. A student may withdraw after beginning instruction or submitting lesson materials, effective upon appearance at the institution or deposit of a written statement of withdrawal for delivery by mail or other means. In accordance with the most recent U.S. Department of Education guidelines, the institution shall be entitled to retain, as registration charges, no more than $100 or 5% of tuition and fees, whichever is less. Additionally, institutions are eligible to retain tuition and fees earned and state gross receipts taxes at a pro-rata amount according to the following schedule, as outlined by the U.S. Department of Education:

<table>
<thead>
<tr>
<th>Date of student withdrawal as a % of the enrollment period for which the student was obligated</th>
<th>Portion of tuition and fees obligated and paid that are eligible to be retained by the institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>On first class day</td>
<td>0%</td>
</tr>
<tr>
<td>After first day; within 10%</td>
<td>10%</td>
</tr>
</tbody>
</table>
the course or program for which the student has been charged, except that a student may not collect a refund if the student has completed 75 percent or more of the total number of hours in the portion of the program for which the student has been charged on the effective date of termination.

5. Refunds for items of extra expense to the student, such as books, tools, or other supplies, should be handled separately from refund of tuition and other academic fees. The student will not be required to purchase instructional supplies, books and tools until such time as these materials are required. Once these materials are purchased, no refund will be made. For full refunds, the college can withhold costs for these types of items from the refund as long as they were necessary for the portion of the program attended and separately stated in the enrollment agreement. Any such items not required for the portion of the program attended must be included in the refund.

REFUND POLICY FOR STUDENTS CALLED TO ACTIVE MILITARY SERVICE

A student of the school or college who withdraws from the school or college as a result of the student being called to active duty in a military service of the United States or the Texas National Guard may elect one of the following options for each program in which the student is enrolled:

1. If tuition and fees are collected in advance of the withdrawal, a pro rata refund of any tuition, fees, or other charges paid by the student for the program and a cancelation of any unpaid tuition, fees, or other charges owed by the student for the portion of the program the student does not complete following withdrawal;

2. A grade of withdraw with the designation of withdrawn military for the courses in the program, other than courses for which the student has previously received a grade on the student’s transcript, and the right to re-enroll in the program, or a substantially equivalent program if that program is no longer available, not later than the first anniversary of the date the student is discharged from active military duty without payment of additional tuition, fees, or other charges for the program other than any previously unpaid balance of the original tuition, fees, and charges for books for the program.

3. The assignment of an appropriate final grade or credit for the courses in the program, but only if the instructor or instructors of the program determine that the student has:
   A. satisfactorily completed at least 90 percent of the required coursework for the program
   B. demonstrated sufficient mastery of the program material to receive credit for completing the program.

REFUND AND DISTRIBUTION POLICY

The college adheres to the refund policy as published in this catalog. This refund policy is in accordance with the guidelines prescribed by the state of Colorado and other states as noted in the enrollment agreement or addenda, and by the federal government. If a student withdraws from the college and a refund is due, the following return of funds and refund distribution policy will be observed:

Amounts of Title IV refunds will be allocated in compliance with federal regulation. Refunds will be allocated in the following order by academic year:

1. Unsubsidized federal Stafford loan
2. Subsidized federal Stafford loan
3. Federal Perkins loan
4. Federal PLUS
5. Other Title IV, HEA assistance, federal, state, private, and institutional student financial assistance received by the student

If after all required Title IV funds are returned based on the Return of Title IV calculation, the state or institutional refund has been calculated, and a credit balance still exists, the credit must be first applied to any APEX financing (if applicable).

If a credit balance still remains, all Title IV loans will first be refunded beginning with the current period of enrollment and going backward, then to any other private loans, then to the student.

Any credit balance on a student’s account at graduation will first be applied to any APEX financing (if applicable) prior to sending to the student.

TUITION AND CHARGES REPAYMENT

REPAYMENT

When a student receives Title IV aid funds for living expenses and then withdraws from college, the student finance office must determine if he/she owes a repayment on funds received in excess of calculated living expenses for the enrollment period.

Note: The student finance office keeps track of this repayment amount, because financial aid transcripts must reflect any outstanding repayment due by the student.

FINANCIAL OBLIGATION

If a student fails to make prompt monthly cash payments, issues personal checks that are returned by banks or fails to take a good faith effort to process his/her financial aid paperwork on a timely basis, he/she is subject to the college’s disciplinary action. It is the college’s policy that a student must satisfy all financial obligations to the college prior to the start of the next term. No academic records will be released to any institution or individual until all financial obligations are satisfied.
ERRORS, FRAUD, AND ABUSE
If a staff member becomes aware that a student and/or his/her parents have provided incorrect information on his/her aid application, the staff member will report the situation to the director of campus operations. The director of campus operations will make an appointment with the student in an effort to correct the information. If the student and/or his/her parents correct the information, the director of campus operations will compute the student’s award based on the corrected information, and if necessary, submit such corrections or information to the appropriate agencies.

These financial aid guidelines and procedures may be a combination of federal and state regulations and are constantly changing. For information regarding any current changes, please contact the college student finance office.
Redstone uses an alpha numeric course coding system in which the first several characters represent the subject area and the digits represent the level of the course offering. Applied general education courses start with APM, CA, ENG, MTH, PHY, and SOC. Redstone reserves the right to change prerequisite courses when it determines it is in the best interest of the student and delivery of its programs.

**AF121 METALLIC STRUCTURES**  
150 CLOCK HOURS: 33 LECTURE HOURS / 117 LAB HOURS  
PREREQUISITES: GN111, GN112, GN113  
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: 36.5 LECTURE HOURS / 113.5 LAB HOURS  
PREREQUISITES: AF121, GN111, GN112, GN113  
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 to apply the finish to an aircraft.

**AF123 AIRCRAFT ELECTRICAL**  
150 CLOCK HOURS: 77 LECTURE HOURS / 73 LAB HOURS  
PREREQUISITES: GN111, GN112, GN113  
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: 82.5 LECTURE HOURS / 67.5 LAB HOURS  
PREREQUISITES: GN111, GN112, GN113  
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 non-destructive testing.

**AF125 AIRCRAFT INSTRUMENTATION**  
150 CLOCK HOURS: 122 LECTURE HOURS / 28 LAB HOURS  
PREREQUISITES: AF123, GN111, GN112, GN113  
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: 63 LECTURE HOURS / 87 LAB HOURS  
PREREQUISITES: GN111, GN112, GN113  
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.

APM120 INTRODUCTION TO BUSINESS
3.0 CREDIT HOURS
30 CLOCK HOURS: 30 LECTURE HOURS / 0 LAB HOURS
PREREQUISITE: NONE
This course is designed to be an introduction into the operation of an HVAC business. Topics covered include an overview of various types of traditional businesses and e-business models, building a business, business law, and government regulations. Special emphasis is placed on HVAC businesses in the “new economy.” Upon completion of this course, students should be able to describe the basic concepts to starting and operating an HVAC business.

AV121 COMMUNICATION THEORY
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL124, EL125, EL126
This course explores the use of electronic circuits for the purpose of communication via RF signals which includes AM, FM and Phase Modulation. Circuits studied include oscillators, modulators, mixers, buffers, filters, as well as a discussion of fiber optic theory. The course also introduces an introduction to fiber optics, radio wave propagation and antenna theory. Soldering skills are reinforced by building an AM/FM radio. Upon successful completion of this course, students should be able to exhibit basic knowledge and skills in communication and fiber optic theory and possess and understanding of the operation of transmitter and receiver circuitry.

AV122 WIRING I
4.0 CREDIT HOURS / 30 LECTURE HOURS / 20 LAB HOURS
PREREQUISITES: EL121, EL122
Course will introduce students to basic wiring concepts. Covered will be wiring diagrams, types of connectors, installation tools and common materials, as well as installation procedures and techniques. Students will fabricate a basic wiring harness. Course includes the study of avionics installation practices, with the main emphasis on wiring techniques using a wide range of specialized crimpers and use of installation manuals. Aircraft systems, including batteries, electrical power generation, and aircraft data buses, are introduced. Also discussed are the rules and regulations of the aviation industry, including Federal Aviation regulations, Air Transport Association codes, manufacturer’s manuals, and industry documentation requirements. Upon successful completion of this course, students should have basic understanding of wiring concepts, know the power producing systems of aircraft, and have basic knowledge of documents and manuals in the aviation industry.

AV123 WIRING II
6.0 CREDIT HOURS / 25 LECTURE HOURS / 70 LAB HOURS
PREREQUISITES: EL121, EL122, AV122
Course builds on the basic wiring concepts presented in Wiring I. Advanced install practices and techniques as well as detailed workmanship criteria are presented. Very detailed lab projects include the building of a complete wiring harness for multiple units utilizing a complex schematic. Course also includes instruction on manual usage, component installation manuals, aircraft wiring diagrams, plans and preparation of complex wiring projects, continuity and power-on checks, troubleshooting, and documentation requirements. Upon completion of this course, students should be able to construct a complex wire harness build-up from initial planning to final completion of documentation.

AV124 COMMUNICATION AND NAVIGATION SYSTEMS
9.0 CREDIT HOURS / 40 LECTURE HOURS / 100 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, AV121
The course includes material covering VHF, HF, and SatCom forms of communication and aviation navigation systems to include the ILS system components, VOR, and GPS. Also presented in the class will be an overview of various cockpit display systems and enhanced vision systems to include Synthetic Vision systems. Lab exercises will simulate real world shop repair experience by requiring students to evaluate, troubleshoot, and identify equipment failure to the component level utilizing schematics and industry standard test equipment and procedures on actual aircraft avionic equipment. Upon completion of this course the student should be able to demonstrate a basic understanding of the various communication and navigation systems presented in class at both the theoretical and application level as well as practically displaying skills utilizing the necessary resources to troubleshoot aviation electronic equipment to the component level.

AV125 GYROSCOPES AND AUTOPILOT SYSTEMS
6.0 CREDIT HOURS / 35 LECTURE HOURS / 50 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL124, EL125, EL126, AV124
Course will include the study of basic theory of flight, flight controls, gyroscopes and gyroscopic systems, INS/IRS, AHRS, and FMS utilized in modern aircraft Flight Director/Autopilot systems. Time will also be spent discussing RVSM principles and system concepts and requirements including the ADC and pitot/static system. Upon successful completion of this course students should be able to explain the fundamental theory of flight and aerodynamics related to lift and flight control. The student should also possess a basic knowledge of the various motion/position sensing and command/control systems studied and be able to describe and explain the interconnection between the various aircraft systems comprising the modern aircraft autopilot to include the different modes of autopilot system operation available to the pilot.

AV126 PULSE MICROWAVE SYSTEMS
9.0 CREDIT HOURS / 40 LECTURE HOURS / 100 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL124, EL125, EL126, AV121
Course includes the study of basic microwave principles and theory as a basis for understanding radar and microwave devices and systems. Specific aircraft systems covered to include Transponders, DME, TCAS I and II, ADS-B/Next Gen systems, WX Radar, and TAWS/EGPWS. Lab exercises will simulate real world shop repair experience by requiring students to evaluate, troubleshoot, and identify equipment failure to the component level utilizing schematics and industry standard test equipment and procedures on actual aircraft equipment. Upon course completion the student should be able to display a fundamental understanding of the theory, operation, and practical usage of the various systems studied and their relationship to safe flight in aviation. Additionally, the student should display practical skills utilizing the necessary resources to troubleshoot aviation electronic equipment to the component level.

BUC118 BUSINESS CONCEPTS
4.5 CREDIT HOURS / 35 LECTURE HOURS / 20 LAB HOURS
PREREQUISITES: NONE
This course acquaints students with business concepts in the wide range of technology fields. Topics will include project development, relevant government policies, code requirements, contracts, leases, financing, warranties, rebates, and incentives. Upon successful completion of this course, students should have a basic understanding of basic business concepts prevalent in today’s various industries.
This course is designed to increase proficiency in the use of common word processing, spreadsheet, and presentation application software. Topics include the production of business documents and reports. Computer hardware and field-based computer equipment will be examined. Upon completion of this course, students should be able to prepare documents using word processing, spreadsheet, and presentation software.

Com118 Computer Concepts
4.5 Credit Hours / 35 Lecture Hours / 20 Lab Hours
Prerequisites: None
This course is designed to help students develop the skills and proficiency needed in the use of common word processing, spreadsheet, and presentation application software. Topics include the production of business documents and reports. Computer hardware and field-based computer equipment will be examined. Upon completion of this course, students will be able to prepare documents using word processing, spreadsheet, and presentation software.

El121 DC Electronics
6.0 Credit Hours / 40 Lecture Hours / 40 Lab Hours
Prerequisites: None
This course is an introduction to basic DC electronics. Students are introduced to the concepts of voltage, current, and resistance, and to components including conductors, semiconductors, insulators, resistors, capacitors, and circuit characteristics. The course also covers the application of these concepts and components in series, parallel, and series-parallel circuits. Upon completion of this class, students should understand the concepts of voltage, current, and resistance, various DC circuit components, and how these components react in series, parallel, and series-parallel circuits.

El122 AC Electronics
6.0 Credit Hours / 40 Lecture Hours / 40 Lab Hours
Prerequisites: None
This course is an introduction to basic AC electronics. Students are introduced to the concepts of voltage, current, and resistance, and to components including conductors, semiconductors, insulators, resistors, capacitors, and circuit characteristics. The course also covers the application of these concepts and components in series, parallel, and series-parallel circuits. Students are also introduced to the use of an oscilloscope and an instruction to the use of a digital multimeter. Upon completion of this class, students should understand the concepts of voltage, current, and resistance, various circuit components, and how these components react in series, parallel, and series-parallel circuits.

El123 Solid State Electronics
6.0 Credit Hours / 40 Lecture Hours / 40 Lab Hours
Prerequisites: EL121, EL122
This course is a study of amplifiers, operational amplifiers, transistors, capacitors, and oscillators. The course includes a discussion of basic solid state electronic concepts and components in series, parallel, and series-parallel circuits. Students are also introduced to the use of an oscilloscope. Upon completion of this class, students should understand the concepts of voltage, current, and resistance, various circuit components, and how these components react in series, parallel, and series-parallel circuits.

El124 Digital Electronics
4.0 Credit Hours / 30 Lecture Hours / 20 Lab Hours
Prerequisites: EL121, EL122
This course starts with a discussion of digital concepts, including number conversion, gates, flip-flops and counters. Shift registers and light microprocessor theory is taught, along with common digital circuits. Upon successful completion of this course, students should be able to describe digital electronic concepts and be able to apply these concepts in a series of lab projects.

El125 Instrumentation and Control
4.0 Credit Hours / 30 Lecture Hours / 20 Lab Hours
Prerequisites: EL121, EL122
This course provides instruction in switches, many types of sensors, relays, motors, generators, and the control of these devices. Upon completion of this course, students should be able to describe the various components in an analog circuit and be able to read basic wiring diagrams and schematics.

El126 Troubleshooting Techniques
6.0 Credit Hours / 40 Lecture Hours / 40 Lab Hours
Prerequisites: EL121, EL122, EL123
This course consists of instruction in troubleshooting techniques and to logically approach problems using extensive practice in interpreting schematic diagrams and lab work. The course includes troubleshooting of small circuits using standard test equipment using a logical approach to problem solving. Voltage regulators and power supplies are introduced to the students. Upon successful completion of this course, students should be able to describe the principles of troubleshooting electrical circuits and be able to apply this knowledge to various circuits.

Eng110 Business Writing
3.0 Credit Hours / 25 Lecture Hours / 10 Lab Hours
Prerequisite: None
The emphasis of this course is to prepare students to apply the writing process to the documents and situations they will encounter in the workplace. Upon completion of this course, students should be able to prepare well-constructed correspondence, reports, proposals, presentations, contracts specific to the requirements of the program, and elements of research, email, and use of technology for visual presentations.

Eng118 Business Writing
4.5 Credit Hours / 35 Lecture Hours / 20 Lab Hours
Prerequisite: None
The emphasis of this course is to prepare students to apply the writing process to the documents and situations they will encounter in the workplace. Upon completion of this course, students should be able to prepare well-constructed correspondence, reports, proposals, presentations, contracts specific to the requirements of the program, and elements of research, email, and use of technology for visual presentations.

Et123 Motors and Generators
4.0 Credit Hours / 30 Lecture Hours / 20 Lab Hours
Prerequisites: EL121, EL122, EL123
This course focuses on power conversion systems and industrial control systems, including PMG conversion systems, full conversion systems, and DFIG conversion systems. Students will study comparative performance of these systems and how sensors, instruments, and relay circuits are used in control systems. Topics include basic physics of motors and generators, proximity sensors, encoder systems, control systems, three-phase power systems, and solid state electronics. Upon successful completion, students will have an overall knowledge of power conversion systems and control systems and will be familiar with these systems at the component level.
ET124 PROGRAMMABLE LOGIC CONTROLLERS
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: EL121, EL122, EL123
This course focuses on Programmable Logic Controllers (PLCs) and their integration into electronic systems. Covered are the theory of operation, PLC component parts and functions, sequence of operation, addressing, ladder logic, programming, timers, sequencers, and troubleshooting. Upon completion of this course, students should understand PLC principles and concepts, be able to perform basic programming operations, and know how to troubleshoot PLC malfunctions.

ET125 FLUID POWER
4.0 CREDIT HOURS / 30 LECTURE HOURS / 20 LAB HOURS
PREREQUISITES: NONE
This course introduces students to hydraulics and the practical application of fluids. Students will learn the fundamentals of a hydraulic system, components including actuators and valves, schematics of fluid circuits, and system troubleshooting. Upon completion of this class, students should have a basic understanding of the fundamentals principles and components of hydraulic systems.

ET126 ROBOTICS AND CONTROL SYSTEMS
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL124, ET133
This course focuses on robots and the systems that control their actions. Students will become familiar with the types of robots, gantry, arm, and vision, and their motion attributes, including speed, accuracy to destination, and interpolation. Students will become familiar with the various types of robotic controls, how to configure system variables, and how to perform basic set-up functions. Upon completion of this course, students should be able to describe basic robotic concepts and principles and how the controls systems allow the robot to function to perform industry tasks.

ET127 NETWORK COMMUNICATIONS
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL124, ET133
This course covers a wide range of topics, including familiarity with CISCO networking devices, CCNA fundamentals, networking principles, LANS, network types, network media, switching fundamentals, TCP/IP, IP addressing and routing, WAN technologies, operating and configuring IOS devices, and managing network environments. Upon successful completion of this course, students will be familiar with principles and components of network communications.

ET128 DIGITAL ELECTRONICS II
4.0 CREDIT HOURS / 30 LECTURE HOURS / 20 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL124
This course continues with the topics presented in EL124, Digital Electronics. The course covers shift registers, multiplexing and demultiplexing, interface adapters, microprocessors, memory, and transfer of data. At the conclusion of this class, students will have a thorough understanding of digital electronic concepts and applications.

ET129 WIRELESS COMMUNICATION
4.0 CREDIT HOURS / 30 LECTURE HOURS / 20 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, ET133
This course covers a wide range of topics including amplitude modulation (AM), frequency modulation (FM), pulse modulation, digital communications, analog to digital converters, digital to analog converters, antenna and transmission theory, communication satellites, and microwave theory. At the conclusion of this class, students should understand the wide range of wireless communication theory and applications.

ET130 INTRODUCTION TO ENERGY MANAGEMENT
4.0 CREDIT HOURS / 30 LECTURE HOURS / 20 LAB HOURS
PREREQUISITES: EL121, EL122
This course provides an introduction to energy management. Students will gain an understanding of the various forms of energy, energy conservation, and heat transfer. Home and commercial energy conservation principles, along with various forms of renewable energy generation and the grid, are discussed. Upon completion of this course, students will have a basic understanding of the various forms of energy generation and management.

ET133 INDUSTRIAL WIRING AND SCHEMATICS
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: EL121, EL122, EL123
This course provides an introduction to residential and commercial electrical wiring, schematics, drawings common to electrical applications, and blueprint reading. The fundamentals of electrical system wiring and operation for devices, such as heaters, motors, transformers, and generators, are presented. The course also covers various electrical safety devices and their use. Upon completion of this course, students should understand residential and commercial wiring, safety devices, and know how to read wiring schematics.

ET134 SAFETY
5.0 CREDIT HOURS / 45 LECTURE HOURS / 10 LAB HOURS
PREREQUISITES: NONE
This course includes the complete OSHA 30-hour General Industry training program. Course also includes work at height safety training. Students will receive a certificate for completion of each of these training programs.

ET135 MECHANICAL SYSTEMS
4.0 CREDIT HOURS / 30 LECTURE HOURS / 20 LAB HOURS
PREREQUISITES: NONE
This course focuses on mechanical energy transfer systems and their application to industry. Students will become familiar with components such as conveyors, sprockets, gears, bearings, chains, and gear boxes. Shaft alignments, lubrication requirements, system inspection, and troubleshooting are also covered. Upon completion of this course, students should have a basic understanding of mechanical systems and their application to industry.

ET136 SOLAR PHOTOVOLTAICS
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL125
This course provides students with the operating principles of Photovoltaics (PV) electricity systems, a detailed description of PV system components including PV modules, batteries, controllers, inverters, interconnects, and system protection devices. Course also includes solar isolation and site analysis, as well as PV system sizing, designing, installation planning, maintenance, troubleshooting, and safety. Upon completion of this course, students should understand PV systems principles and components, and know requirements for installation of a PV system.

GN111 AVIATION SCIENCE
150 CLOCK HOURS / 77 LECTURE HOURS / 73 LAB HOURS
PREREQUISITES: NONE
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. The 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. The 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.

**HV123 AIR DUCT CALCULATION AND FABRICATION**

4.0 CREDIT HOURS
55 CLOCK HOURS: 25 LECTURE HOURS / 30 LAB HOURS
PREREQUISITE: NONE

This course will provide students with the theory and application of sheet metal fabrication for use in the residential and light commercial HVAC systems installation. Topics include skills, equipment, and procedures involved with metal cutting, bending, forming, and joining air duct systems, air duct sizing, calculating airflow (CFM), lay out and fabricate an HVAC supply and return plenum, transitions, squares, radius elbows, and install a complete air duct system for a residential and light commercial HVAC system.

**HV125 BUILDING MECHANICAL CODES**

4.0 CREDIT HOURS
40 CLOCK HOURS: 40 LECTURE HOURS / 0 LAB HOURS
PREREQUISITE: NONE

This course will provide students with a working knowledge of mechanical, fuel, gas, plumbing, and electrical codes. Topics include code requirements for combustion air systems, venting systems, fuel piping systems, electrical wiring, and plumbing for residential and commercial HVAC applications. Upon completion of this course, students should be able to understand building codes and their application to HVAC systems.

**HV130 ELECTRICITY AND HVAC CONTROL SYSTEMS**

12.0 CREDIT HOURS
150 CLOCK HOURS: 90 LECTURE HOURS / 60 LAB HOURS
PREREQUISITE: HV120

This course introduces students to the fundamentals of electricity as they apply to the HVAC industry. Topics include electrical theory, reading wiring schematics, electrical installation, service and troubleshooting of air conditioning and gas heating units, electrical heat, electron theory of electricity, Ohms Law, Watts Law, electrical components, wiring circuitry, and electrical safety. The course also includes the study of modern HVAC control systems and their application. Upon successful completion of the course, students should be able to describe the electron theory of electricity, along with Ohms Law, Watts Law, and describe how wiring circuitry is used in the HVAC industry.

**HV140 FORCED AIR GAS HEATING AND AIR CONDITIONING SYSTEMS**

7.5 CREDIT HOURS
90 CLOCK HOURS: 60 LECTURE HOURS / 30 LAB HOURS
PREREQUISITES: HV120, HV130

This course introduces students to an overview of commercial refrigeration. Topics include installation/service of residential and light commercial forced air furnaces, heat pumps, split AC systems, package roof top units, heating and cooling controls and circuitry, and troubleshooting electrical and mechanical components of heating and cooling equipment. Upon completion of the course, students should be able to explain the sequence of operation and troubleshoot residential and light commercial heating and cooling equipment.

**HV150 ADVANCED REFRIGERATION**

6.0 CREDIT HOURS
75 CLOCK HOURS: 45 LECTURE HOURS / 30 LAB HOURS
PREREQUISITES: HV120, HV130

This course introduces students to an overview of commercial refrigeration. Topics include installation/service of walk-in coolers and freezers, reach-in coolers and freezers, EPA guidelines for the proper use of refrigerant, troubleshooting techniques of mechanical and electrical systems, airflow measurements, diagnostic principles, and refrigeration circuits and controls. Students may test for their CFC Certification. Upon completion of this course, students should be able to recall the EPA guidelines for the proper handling of refrigerant and know the concepts for troubleshooting and repair of the electrical and mechanical systems of commercial refrigeration units.

**HV220 SYSTEM DESIGN AND HEAT LOAD CALCULATION**

4.5 CREDIT HOURS
60 CLOCK HOURS: 30 LECTURE HOURS / 30 LAB HOURS
PREREQUISITE: HV123

This course provides training in the reading of HVAC construction prints as they apply to existing and new construction, and the ap-
application of HVAC system design principles. Topics include how to read HVAC construction prints, ductwork design, heat load calculations, equipment sizing, HVAC system analysis, system setup, inspection and repair of HVAC system installations, design considerations, indoor air quality, and comfort and psychrometrics. Upon completion of this course, students should be able to demonstrate the ability to accurately read HVAC construction prints, understand system design principles, and understand how to determine indoor air quality.

**HV230 HVAC PNEUMATIC CONTROLS**
6.0 CREDIT HOURS
75 CLOCK HOURS: 45 LECTURE HOURS / 30 LAB HOURS
PREREQUISITES: HV130, HV140

This course provides a detailed study of electrical, electromechanical, and pneumatic control systems in commercial and industrial buildings. Topics include HVAC fundamentals, commercial HVAC systems, HVAC system energy sources, control principles, control systems, air compressor stations, pneumatic actuators, dampers, valves, thermostats, humidistsats, pressure switches, transmitters, receiver controllers, auxiliary devices, and pneumatic control system applications. Upon completion of this course, students should be able to apply system and equipment standards to the installation and repair of HVAC pneumatic control systems.

**HV235 SUPERMARKET REFRIGERATION AND ICE MACHINES**
6.0 CREDIT HOURS
75 CLOCK HOURS: 45 LECTURE HOURS / 30 LAB HOURS
PREREQUISITES: HV120, HV130, HV150

This course will include fundamentals of ice machines, supermarket refrigeration, controls and circuitry, troubleshooting and repair of commercial equipment, startup procedures, retrofitting of new systems, multi-capacity systems, equipment and refrigerant pipe sizing and estimating installation, and construction of a walk-in cooler and freezer. Upon completion of this course, students should be able to describe the fundamental principles of ice machines, supermarket refrigeration, and be able to troubleshoot electrical and mechanical components within a refrigeration system.

**HV236 ADVANCED BUILDING AUTOMATION SYSTEMS**
6.0 CREDIT HOURS
75 CLOCK HOURS: 45 LECTURE HOURS / 30 LAB HOURS
PREREQUISITE: HV230

This course builds on the concepts that are introduced in the HV230 HVAC Pneumatic Controls course. Topics include electrical and electronic control systems, building automation systems and controllers, operator interfaces, building automation system inputs and outputs, installation, wiring, testing, networking and web-based control, direct digital control strategies, supervisory control strategies, building automation system retrofit, building system management, utilities and surveys, building automation troubleshooting, and advance control technologies. Upon completion of this course, students should be able to analyze, diagnose, and repair direct digital controls as well as how to interface with building automation systems.

**HV240 HOT WATER AND SOLAR HEAT SYSTEMS**
9.0 CREDIT HOURS
110 CLOCK HOURS: 70 LECTURE HOURS / 40 LAB HOURS
PREREQUISITE: HV140

This course provides training in the service and troubleshooting of hot water and oil heat systems, flame safeguard technology, geothermal heat pumps, and solar heat. Topics include heat load estimates, pipe sizing, fittings and valves, hydronic heat sources, fluid flow in piping, properties of water, circulating pumps, heat emitters, control strategies, heat exchangers, hydronic radiant panel heating, hot water distribution systems, expansion tanks, air removal, filling and purging, auxiliary loads, and specialized applications. Upon completion of this course, students should be able to apply troubleshooting techniques in the service of hot water and oil heating systems, geothermal heat pumps, and solar heat, as well as demonstrate service procedure and installation techniques.

**HV250 CHILLED WATER SYSTEMS**
6.0 CREDIT HOURS
85 CLOCK HOURS: 35 LECTURE HOURS / 50 LAB HOURS
PREREQUISITE: NONE

This course provides students with a working knowledge of the fundamentals of chilled water systems, including cooling towers and the types of controls and circuitry used. Topics include high / low pressure and absorption chiller operation, subcooling, superheat, metering devices, cooling towers, system and circulation pumps, operation maintenance and troubleshooting, water flow calculation, chilled water system pipe sizing, properties of heat transfer fluids, start-
up procedures for a chilled water air conditioning system, autopsy of a compressor used in chilled water systems, and standard safety procedures. Upon completion of this course, students should be able to properly size and install chilled water piping systems, and be able to apply the proper start-up and preventative maintenance procedures for chilled water systems.

**MTH115 BASIC MATHEMATICS**

3.0 CREDIT HOURS
35 CLOCK HOURS: 25 LECTURE HOURS / 10 LAB HOURS
PREREQUISITE: NONE
This course covers basic mathematics as related to the HVAC field. Topics include the four operations on whole numbers, fractions, decimals, and real numbers, using percents, and applying basic formulas such as area, perimeter, and volume. Upon completion of this course, students should be able to solve problems using basic mathematical operations.

**PHY118 PHYSICAL SCIENCE**

4.5 CREDIT HOURS / 35 LECTURE HOURS / 20 LAB HOURS
PREREQUISITE: NONE
This course stresses the fundamental behaviors of energy and matter. Topics to be discussed include phases of matter, force and motion, work, simple machines, conservation and transformation of energy, heat, waves, sound, light and magnetism. Upon completion of this course, students should be able to discuss the fundamental behaviors of matter and energy and be able to apply their knowledge to everyday situations.

**PP131 RECIPROCATING ENGINE THEORY**

150 CLOCK HOURS: 55.5 LECTURE HOURS / 94.5 LAB HOURS
PREREQUISITES: GN111, GN112, GN113
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. The 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: 68 LECTURE HOURS / 82 LAB HOURS
PREREQUISITES: GN111, GN112, GN113, PP131
In this course, reciprocating engine ignition systems, including magneto, 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: 94 LECTURE HOURS / 56 LAB HOURS
PREREQUISITES: GN111, GN112, GN113, PP131
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: 76 LECTURE HOURS / 74 LAB HOURS
PREREQUISITES: GN111, GN112, GN113
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 are a study of turbine engine exhaust and reverser systems, and unducted fans. The 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: 63.5 LECTURE HOURS / 86.5 LAB HOURS
PREREQUISITES: GN111, GN112, GN113, PP134
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 troubleshooting turbine engine lubrication, fuel metering, ignition and starting, engine instruments, as well as auxiliary power units, and engine fire protection systems.

**SOC110 CUSTOMER RELATIONS**

3.0 CREDIT HOURS
30 CLOCK HOURS: 30 LECTURE HOURS / 0 LAB HOURS
PREREQUISITE: NONE
This class focuses on customer relations concepts and their impact on the HVAC industry. Topics include basic customer relations concepts, problem solving and handling of difficult customers, telephone and internet techniques, communication do’s and don’ts, and best ideas and techniques. Upon completion of this course, students should be able to demonstrate proper customer relations concepts and be able to solve various customer related problems.

**SOC118 HUMAN/CUSTOMER RELATIONS**

4.5 CREDIT HOURS / 35 LECTURE HOURS / 20 LAB HOURS
PREREQUISITE: NONE
This class focuses on customer relations concepts and the development of a customer service culture. Topics include basic customer relations concepts, verbal and non-verbal communication skills, effective listening techniques, problem solving and handling of difficult customers, telephone and internet techniques, communication do’s and don’ts, and best ideas and techniques. Upon completion of this course, students should be able to demonstrate proper customer relations concepts and be able to solve various customer related problems.
TR140 INSPECTION, TEST AND REVIEW
150 CLOCK HOURS: 105 LECTURE HOURS / 45 LAB HOURS
PREREQUISITES: AF111, AF112, AF113, AF114, AF115, GN111, GN112, GN113, PP131, PP132, PP133, PP134, PP135
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 percent on each test.

WN121 INTRODUCTION TO WIND ENERGY
3.0 CREDIT HOURS / 25 LECTURE HOURS / 10 LAB HOURS
PREREQUISITES: NONE
This course covers the history of wind energy conversion devices and the current state of the wind energy industry. Students will learn about the physics of wind energy and the comparative value and performance of wind energy versus other forms of energy production. Students will also be introduced to systems and physical units of measurement in both English and metric systems. Students will complete broad first aid training and be certified by American Red Cross to properly deliver that first aid to an injured person. Upon successful completion of this course students will understand the energy industry and be familiar with all aspects of the wind energy industry and relevant public policy. Students will also understand the physics of wind energy conversion and wind energy resources.

WN122 WIND TURBINE DESIGN
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: NONE
Course covers an introduction to the wind turbine major components including blades and rotors, rotor hubs, blade pitch mechanisms, drive train and support structure, electrical system, gearboxes, nacelles, and towers. Students will learn the fundamental physics applied to all wind turbine systems and energy conversion systems. Topics include pitch systems, yaw systems, power conversion systems, drive trains, basic aerodynamics, and turbine control systems. Upon successful completion of this course, students should be able to discuss all major components of wind turbines and be able to perform simple calculations regarding work and energy, turbine performance and power available in the wind.

WN123 WIND TURBINE STRUCTURES
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: WN121, WN122
This course focuses on the design, repair, and physical properties of wind turbine structures including blade composition and repair, nacelles, towers, composite theory, and structural inspection. Students will learn a variety of techniques in composite structure manufacturing, field repairs, and the underlying physics behind these design and repair techniques. Class also includes an in-depth discussion of metallurgy, strength of materials and fasteners, and the fundamentals of crane and rigging systems for wind turbines. Upon successful completion of this course, students should be able to explain all structural components of wind turbines and how to inspect and repair composite structures. Students will also become familiar with properties of metals used in fasteners and turbine structures, the physics of structural vibrations and damping, and typical methods used in rigging and transporting structural components.

WN124 WIND TURBINE MAINTENANCE
6.0 CREDIT HOURS / 40 LECTURE HOURS / 40 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, WN121, WN122, WN123
This course covers the general maintenance requirements of turbines including an understanding of SCADA basics, a detailed description of maintenance operations, documentation requirements including service reports, scheduled and unscheduled maintenance, and inspection requirements. Also covered is a detailed discussion of cranes and rigging, stressing safety requirements. Course provides training on fasteners and torque systems and a certificate is provided. Upon successful completion of this course, students should be able to safely perform basic inspections and maintenance, have knowledge of cranes and rigging, and be able to comply with manufacturer's fastener and torque requirements.

WN125 WIND TURBINE SYSTEMS AND COMPONENTS I
6.0 CREDIT HOURS / 30 LECTURE HOURS / 60 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, ET123, ET124, WN121, WN122, WN123
Course includes demonstration of wind turbine systems and components including AC and DC motors, rotor brakes, heating and cooling systems, hydraulics, bearings, and lubrication. Upon successful completion of this course, students should be able to explain in detail the normal operation and inspection of all these systems and be able to demonstrate typical maintenance techniques. Students will also be able to demonstrate a strong knowledge of the underlying physics of these systems and be able to perform detailed calculations regarding the system performance metrics of brake systems, hydraulic systems, and electric motor systems.

WN126 WIND TURBINE SYSTEMS AND COMPONENTS II
6.0 CREDIT HOURS / 30 LECTURE HOURS / 60 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, EL124, ET124, WN121, WN122, WN123, WN124, WN125
This course builds upon previous systems and troubleshooting courses to develop a deeper understanding of wind turbine systems and components. Advanced topics include pitch systems, yaw systems, generator systems, control systems, hydraulic systems, electric motors and drives, gearboxes, shaft couplings, and shaft alignment methods. Students will focus on how component performance and compatibility within these systems affects system level performance. Upon successful completion of this course, students should be able to explain in detail the function and underlying physics of all these systems in a variety of manufacturer's configurations. Students will also be able to demonstrate generator shaft alignment on a full scale turbine generator using both manual and laser based systems.

WN127 ADVANCED WIND TURBINE TROUBLESHOOTING
6.0 CREDIT HOURS / 30 LECTURE HOURS / 60 LAB HOURS
PREREQUISITES: EL121, EL122, EL123, ET123, ET124, WN121, WN122, WN123, WN124, WN125
This course is an advanced wind turbine troubleshooting course. Students will apply all concepts from the entire program and troubleshoot live turbines at full control power levels. Emphasis is on safety and critical thinking skills in troubleshooting all turbine subsystems. Upon successful completion of this course students will be able to safely enter a wind turbine work environment and perform routine maintenance in accordance with all typical industry safety and maintenance procedures. In addition, students will be able to diagnose multiple turbine fault conditions and perform repairs as necessary to restore the turbine to operational condition. Completion of this course requires passing a comprehensive written test covering material from entire curriculum as well as a practical exam demonstrating readiness for fieldwork.
ADVANCED ELECTRONICS TECHNOLOGY (AET)*

ASSOCIATE OF OCCUPATIONAL STUDIES
DAY SESSION: 15 months (six terms)
EVENING SESSION: Not offered
CREDIT HOURS: 96.0
CLOCK HOURS: 1,500

COURSE REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>36.0</td>
</tr>
<tr>
<td>Area of Emphasis</td>
<td>42.0</td>
</tr>
<tr>
<td>Applied General Education</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>96.0</td>
</tr>
</tbody>
</table>

PROGRAM DESCRIPTION
The college’s Advanced Electronics Technology program is 15 months long and includes 1,500 hours of instruction. The curriculum is divided into 16 classes over six terms. Each class covers a specific concept of electronics or avionics maintenance and repair. The first six classes in the program cover principles vital for entry into any electronics-related field. The last six classes focus on the advanced electronics and avionics systems found in the aviation industry. Instruction in the program consists of theory of electronic components, use of specialized equipment, advanced troubleshooting, along with soldering skills. The program also includes component-level troubleshooting, avionics system troubleshooting, and advanced wiring techniques. Students will complete four applied general education courses to complete their program.

PROGRAM OUTCOMES
Upon successful completion of the program, students should be able to:

- Use advanced wiring tools and techniques
- Test, analyze, and calibrate VOR, ILS, and ADF systems
- Understand and troubleshoot flight control and autopilot systems
- Be familiar with advanced avionics systems and analyze aircraft schematics and wiring diagrams

LABORATORIES AND EQUIPMENT
Labs and equipment used in the AV program have been selected from companies that set the standards in their field, including HP, Honeywell, Collins, King, Pace, IFR, Aspen, Dynon, and Barfield. To teach fundamentals, the program uses electronic trainers from BK Precision, Lab-Volt, Heathkit, Tektronix, Garmin, Michel, and Linaire.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL111</td>
<td>DC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL112</td>
<td>AC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL113</td>
<td>Solid State Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL114</td>
<td>Transducers and Wiring Diagrams</td>
<td>6.0</td>
</tr>
<tr>
<td>EL115</td>
<td>Digital Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL116</td>
<td>Troubleshooting Techniques</td>
<td>6.0</td>
</tr>
<tr>
<td>AV111</td>
<td>Communication Theory</td>
<td>6.0</td>
</tr>
<tr>
<td>AV112</td>
<td>Wiring I</td>
<td>6.0</td>
</tr>
<tr>
<td>AV113</td>
<td>Wiring II</td>
<td>6.0</td>
</tr>
<tr>
<td>AV114</td>
<td>Communication and Navigation Systems</td>
<td>9.0</td>
</tr>
<tr>
<td>AV115</td>
<td>Gyrosopes and Autopilot Systems</td>
<td>6.0</td>
</tr>
<tr>
<td>AV116</td>
<td>Pulse Microwave Systems</td>
<td>9.0</td>
</tr>
</tbody>
</table>

APPLIED GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG108</td>
<td>Business Writing</td>
<td>4.5</td>
</tr>
<tr>
<td>SOC108</td>
<td>Human/Customer Relations</td>
<td>4.5</td>
</tr>
<tr>
<td>MTH108</td>
<td>Applied Mathematics</td>
<td>4.5</td>
</tr>
<tr>
<td>PHY108</td>
<td>Physical Science</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 96.0

Note: Courses may be taught in a sequence that differs from the order represented above.

Due to current FAA regulations, Redstone College cannot guarantee transferability of credits between the Airframe and Powerplant and the Advanced Electronics Technology programs.

*This program is offered at the Redstone College – Denver East campus only.
WIND ENERGY TECHNOLOGY (WET)*

ASSOCIATE OF OCCUPATIONAL STUDIES
DAY SESSION: 15 months (six terms)
EVENING SESSION: Not offered
CREDIT HOURS: 96.0
CLOCK HOURS: 1,510

COURSE REQUIREMENTS FOR GRADUATION

<table>
<thead>
<tr>
<th>Course Area</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td>39.0</td>
</tr>
<tr>
<td>Area of Emphasis</td>
<td>39.0</td>
</tr>
<tr>
<td>Applied General Education</td>
<td>18.0</td>
</tr>
<tr>
<td>Total</td>
<td>96.0</td>
</tr>
</tbody>
</table>

PROGRAM DESCRIPTION
The college’s Wind Energy Technology program is 15 months long and includes 1,510 hours of instruction. The curriculum is divided into 16 classes taken over six terms. The first two classes in the program cover an introduction and basic design of wind turbines. The next three classes focus on the basic concepts of electronics, including DC and AC circuits, and solid state theory. The remaining classes focus on detailed principles, systems, and concepts of wind turbines, including the many safety requirements of the wind turbine industry. Students will complete four applied general education courses to complete their program.

PROGRAM OUTCOMES
Upon successful completion of the Wind Energy Technology program, students should be able to:

- Demonstrate detailed knowledge of wind turbine structures and major wind turbine sub-systems, including pitch systems, yaw systems, generatory systems, hydraulic systems, and all components comprising these systems
- Understand the electronic and communications systems that are unique to wind turbines, including lightning protection, PLCs, SCADA basics, sensors, transformers, sub-stations, and characteristics of the power grid
- Apply sophisticated troubleshooting techniques to all wind turbine systems and identify faults, root causes, and appropriate corrective actions for safe turbine repair

LABORATORIES AND EQUIPMENT
Labs and equipment used in the Wind Energy Technology program have been selected to enable students to effectively learn the concepts necessary for entry-level technicians. The school has all of the major components for a Vestas V27 wind turbine to provide the most complete training.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL111</td>
<td>DC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL112</td>
<td>AC Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>EL113</td>
<td>Solid State Electronics</td>
<td>6.0</td>
</tr>
<tr>
<td>WN111</td>
<td>Introduction to Wind</td>
<td>6.0</td>
</tr>
<tr>
<td>WN112</td>
<td>Wind Turbine Design</td>
<td>6.0</td>
</tr>
<tr>
<td>WN113</td>
<td>Wind Turbine Structures</td>
<td>9.0</td>
</tr>
<tr>
<td>WN114</td>
<td>Wind Turbine Electrical Systems</td>
<td>6.0</td>
</tr>
<tr>
<td>WN115</td>
<td>Wind Turbine Systems and Components I</td>
<td>6.0</td>
</tr>
<tr>
<td>WN116</td>
<td>Wind Turbine Communication Systems</td>
<td>6.0</td>
</tr>
<tr>
<td>WN117</td>
<td>Wind Turbine Maintenance and Troubleshooting</td>
<td>6.0</td>
</tr>
<tr>
<td>WN118</td>
<td>Wind Turbine Systems and Components II</td>
<td>6.0</td>
</tr>
<tr>
<td>WN119</td>
<td>Advanced Wind Turbine Troubleshooting</td>
<td>9.0</td>
</tr>
</tbody>
</table>

APPLIED GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Quarter Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG108</td>
<td>Business Writing</td>
<td>4.5</td>
</tr>
<tr>
<td>SOC108</td>
<td>Human/Customer Relations</td>
<td>4.5</td>
</tr>
<tr>
<td>MTH108</td>
<td>Applied Mathematics</td>
<td>4.5</td>
</tr>
<tr>
<td>PHY108</td>
<td>Physical Science</td>
<td>4.5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDIT HOURS 96.0

Note: Courses may be taught in a sequence that differs from the order represented above.

*This program is offered at the Redstone College – Denver East campus only.
Redstone uses an alpha numeric course coding system in which the first several characters represent the subject area and the digits represent the level of the course offering. Applied general education courses start with ENG, MTH, PHY, and SOC. Redstone reserves the right to change prerequisite courses when it determines it is in the best interest of the student and delivery of its programs.

AV111 COMMUNICATION THEORY
6.0 CREDIT HOURS
100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS
PREREQUISITES: EL111, EL112, EL113, EL114, EL115, EL116
This course explores the use of electronic circuits for the purpose of communication via RF signals, which include AM, FM and Phase Modulation. Circuits studied include oscillators, modulators, mixers, buffers, and filters, the building blocks for receivers and transmitters for most communication systems. The course also offers an introduction to fiber optics, radio wave propagation and antenna theory. Soldering skills are reinforced by building an AM/FM radio. Upon successful completion of this course, students should be able to exhibit basic knowledge and skills in communication and fiber optic theory and possess an understanding of the operation of transmitter and receiver circuitry.

AV112 WIRING I
6.0 CREDIT HOURS
100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS
PREREQUISITES: EL111
This course will introduce students to basic wiring concepts. Wiring diagrams, types of connectors, installation tools and common materials, as well as installation procedures and techniques, will be covered. Students will fabricate a basic wiring harness. The course includes the study of avionics installation practices, with the main emphasis on wiring techniques using a wide range of specialized crimpers and the use of installation manuals. Aircraft systems, including batteries, electrical power generation, and aircraft data buses, are introduced. The rules and regulations of the aviation industry, including Federal Aviation Regulations, Air Transport Association codes, manufacturer’s manuals, and industry documentation requirements, are also discussed. Upon successful completion of this course, students should have basic understanding of wiring concepts, know the power-producing systems of aircraft, and have basic knowledge of documents and manuals in the aviation industry.

AV113 WIRING II
6.0 CREDIT HOURS
100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS
PREREQUISITES: EL111, AV112
This course builds on the basic wiring concepts presented in Wiring I. Advanced install practices and techniques, as well as detailed workmanship criteria, are presented. Very detailed lab projects include the building of a complete wiring harness for multiple units utilizing a complex schematic. The course also includes instruction on manual usage, component installation manuals, aircraft wiring diagrams, plans and preparation of complex wiring projects, continuity and power-on checks, troubleshooting, and documentation requirements. Upon completion of this course, students should be able to construct a complex wire harness build-up from initial planning to final completion of documentation.

AV114 COMMUNICATION AND NAVIGATION SYSTEMS
9.0 CREDIT HOURS
140 CLOCK HOURS: 40 LECTURE HOURS / 100 LAB HOURS
PREREQUISITES: EL111, EL112, EL113, AV111
This course includes material covering VHF, HF, and SatCom forms of communication and aviation navigation systems to include the ILS system components, VOR, and GPS. Also presented in the class will be an overview of various cockpit display systems and enhanced vision systems to include Synthetic Vision systems. Lab exercises will simulate real world shop repair experience by requiring students to evaluate, troubleshoot, and identify equipment failure to the component level utilizing schematics and industry standard test equipment and procedures on actual aircraft avionics equipment. Upon completion of this course, the student should be able to demonstrate a basic understanding of the various communication and navigation systems presented in class at both the theoretical and application level, as well as practically displaying skills utilizing the necessary resources to troubleshoot aviation electronic equipment to the component level.
This course will include the study of basic theory of flight, flight controls, gyroscopes and gyroscopic systems, INS/IRS, AHRS, and FMS utilized in modern aircraft Flight Director/Autopilot systems. Time will also be spent discussing RVSM principles and system concepts and requirements, including the ADC and pitot/static system. Upon successful completion of this course, students should be able to explain the fundamental theory of flight and aerodynamics related to life and flight control. The student should also possess a basic knowledge of the various motion/position sensing and command/control systems studied and be able to describe and explain the interconnection between the various aircraft systems comprising the modern aircraft autopilot to include the different modes of autopilot system operation available to the pilot.

**AV116 Pulse Microwave Systems**

**9.0 CREDIT HOURS**

140 CLOCK HOURS: 40 LECTURE HOURS / 100 LAB HOURS

**PREREQUISITES: EL111, EL112, EL113, EL114, EL115, EL116, AV111, AV114**

This course includes the study of basic microwave principles and theory as a basis for understanding radar and microwave devices and systems. Specific aircraft systems covered to include Transponders, DME, and microwave devices and systems. Specific aircraft systems covered include Transponders, DME, TCAS I and II, ADS-B/Next Gen systems, WX Radar, and TAWS/EGPWS. Lab exercises will simulate real world shop repair experience by requiring students to evaluate, troubleshoot, and identify equipment failure to the component level utilizing schematics and industry standard test equipment and procedures on actual aircraft equipment. Upon course completion, the student should be able to display a fundamental understanding of the theory, operation, and practical usage of the various systems studied and their relationship to safe flight in aviation. Additionally, the student should display practical skills utilizing the necessary resources to troubleshoot aviation electronic equipment to the component level.

**EL111 DC Electronics**

**6.0 CREDIT HOURS**

100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS

**PREREQUISITES: NONE**

This course is an introduction to basic DC electronics. Students are introduced to the concepts of voltage, current, and resistance, and to components including conductors, semiconductors, insulators, resistors, and capacitors, along with their characteristics in circuits. The course also covers the application of these concepts and components in series, parallel, and series-parallel circuits. Upon completion of this class, students should understand the concepts of voltage, current, and resistance, and should be able to describe digital electronic concepts and be able to apply these concepts in a series of lab projects.

**AV115 Gyroscopes and Autopilot Systems**

**6.0 CREDIT HOURS**

100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS

**PREREQUISITES: EL111, EL112, EL113, EL114, EL115, EL116, AV114**

This course will include the study of basic theory of flight, flight controls, gyroscopes and gyroscopic systems, INS/IRS, AHRS, and FMS utilized in modern aircraft Flight Director/Autopilot systems. Time will also be spent discussing RVSM principles and system concepts and requirements, including the ADC and pitot/static system. Upon successful completion of this course, students should be able to explain the fundamental theory of flight and aerodynamics related to life and flight control. The student should also possess a basic knowledge of the various motion/position sensing and command/control systems studied and be able to describe and explain the interconnection between the various aircraft systems comprising the modern aircraft autopilot to include the different modes of autopilot system operation available to the pilot.

**EL112 AC Electronics**

**6.0 CREDIT HOURS**

100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS

**PREREQUISITES: NONE**

This course is an introduction to basic AC electronics. Students are introduced to the concepts of voltage, current, and resistance, and to components including conductors, semiconductors, insulators, resistors, insulators, and capacitors, along with their characteristics in AC circuits. The course also covers the application of these concepts and components in series, parallel, and series-parallel circuits. Students are also introduced to a digital multimeter and an oscilloscope. Upon completion of this class, students should understand the concepts of voltage, current, and resistance, various circuit components, and how these components react in series, parallel, and series-parallel circuits.

**EL113 Solid State Electronics**

**6.0 CREDIT HOURS**

100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS

**PREREQUISITES: EL111, EL112**

This course is a study of amplifiers, operational amplifiers, transistors, capacitors, and oscillators. The course includes decibel conversions, gain calculations, amplifier construction, transistor configuration, as well as signal injection. Students will troubleshoot solid state electronic equipment utilizing common test equipment. Upon successful completion of this course, students should be able to describe the basic concepts of solid state theory and how to troubleshoot solid state electronics using common test equipment.

**EL114 Transducers and Wiring Diagrams**

**6.0 CREDIT HOURS**

100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS

**PREREQUISITES: EL111, EL112**

This course provides instruction in switches, many types of sensors, relays, motors and generators. The course shows application of analog devices for aircraft. The subject of servomechanism and common synchros are also discussed. Basic soldering techniques are taught. Students are introduced to wiring diagrams. Upon completion of this course, students should be able to describe the various components in an analog circuit and be able to read a basic wiring diagram.

**EL115 Digital Electronics**

**6.0 CREDIT HOURS**

100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS

**PREREQUISITES: EL111, EL112**

This course starts with a discussion of digital concepts, including number conversion, gates, flip/flops, and counters. Shift registers and light microprocessor theory are taught, along with common digital circuits. Upon successful completion of this course, students should be able to describe digital electronic concepts and be able to apply these concepts in a series of lab projects.

**EL116 Troubleshooting Techniques**

**6.0 CREDIT HOURS**

100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS

**PREREQUISITES: EL111, EL112, EL113**

This course consists of instruction in troubleshooting techniques and how to logically approach problems using extensive practice in interpreting schematic diagrams and lab work. The course includes troubleshooting of small circuits using standard test equipment and a logical approach to problem solving. Voltage regulators and power supplies are introduced to the students. Upon successful completion of this course, students should be able to describe the principles of troubleshooting electrical circuits and be able to apply this knowledge to various circuits.

**ENG108 Business Writing**

**4.5 CREDIT HOURS**

55 CLOCK HOURS: 35 LECTURE HOURS / 20 LAB HOURS

**PREREQUISITES: NONE**

The emphasis of this course is to prepare students to apply the writing process to the documents and situations students will encounter in the workplace. Upon completion of this course, students should be able to prepare well-constructed correspondence, reports, proposals, instructions, presentations, and elements of research, email, and use of technology for visual presentations.
Upon successful completion of this course, students should be able to physics applied to all wind turbine systems and energy conversion gearboxes, nacelles, and towers. Students will learn the fundamental components, including blades and rotors, rotor hubs, blade pitch, tower, perform a rescue operation and provide a broad range of first and will be qualified to enter a turbine workplace, safely climb the tower, simple machines, conservation and transformation of energy, heat, waves, sound, light and magnetism. Upon completion of this course, students should be able to discuss the fundamental behaviors of matter and energy and be able to apply their knowledge to everyday situations.

This course stresses the fundamental behaviors of energy and matter. Topics to be discussed include phases of matter, force and motion, work, simple machines, conservation and transformation of energy, heat, waves, sound, light and magnetism. Upon completion of this course, students should be able to discuss the fundamental behaviors of matter and energy and be able to apply their knowledge to everyday situations.

This course focuses on industrial system controls and the special knowledge of power conversion systems and control systems used in wind turbine systems. Upon successful completion of this course, students should be able to explain in detail all structural components of wind turbines and how to inspect and repair composite structures. Students will also be familiar with properties of metals used in fasteners and turbine structures, the physics of structural vibrations and damping, and typical methods used in rigging and transporting structural components.

This course focuses on power conversion systems and industrial control systems with specific wind turbine applications, including PMG conversion systems, full conversion systems, and DFIG conversion systems. Students will study comparative performance of these systems and how sensors, instruments, and relay circuits are used in control systems. Topics include basic physics of motors and generators, proximity sensors, encoder systems, control systems, three-phase power systems, and solid state electronics as used in wind turbine systems. Upon successful completion, students will have an overall knowledge of power conversion systems and control systems used in commercial turbines and will be familiar with these systems at the component level.

This course covers an introduction to the wind turbine major components, including blades and rotors, rotor hubs, blade pitch mechanisms, drive train and support structure, electrical system, gearboxes, nacelles, and towers. Students will learn the fundamental physics applied to all wind turbine systems and energy conversion systems. Topics include pitch systems, yaw systems, power conversion systems, drive trains, basic aerodynamics, and turbine control systems. Upon successful completion of this course, students should be able to discuss all major components of wind turbines and be able to perform simple calculations regarding work and energy, turbine performance and power available in the wind.

This course stresses basic mathematic concepts needed for understanding of electronics. Topics include addition, subtraction, multiplication, division, fractions, decimals, exponents, percentages, signed numbers, as well as simple algebra and introductory trigonometry. Students will complete a series of worksheets designed to stress not only the mathematical concept desired, but how the concept applies to electronics. Upon completion of this course, students should be able to apply basic mathematical concepts to electronics.

This course focuses on customer relations concepts and the development of a customer service culture. Topics include basic customer relations concepts, verbal and non-verbal communication skills, effective listening techniques, problem solving and handling of difficult customers, telephone and internet techniques, communication do's and don'ts, and best ideas and techniques. Upon completion of this course, students should be able to demonstrate proper customer relations concepts and be able to solve various customer-related problems.

This course covers the history of wind energy conversion devices and broad safety training required to safely access wind turbines. Students will learn about the physics of wind energy and the fundamentals of energy conversion systems. Students will complete 10-hour OSHA, Red Cross AED, Red Cross Adult First Aid, Red Cross CPR, and work at height safety training courses. Upon successful completion of this course, students will be able to describe the development of wind turbines, and will be qualified to enter a turbine workplace, safely climb the tower, perform a rescue operation and provide a broad range of first aid to an injured person.

This course includes a demonstration of wind turbine systems and components, including AC and DC motors, rotor brakes, heating and cooling systems, hydraulics, bearings, and lubrication. Upon successful completion of this course, students should be able to explain in detail the normal operation and inspection of all these systems and be able to demonstrate typical maintenance techniques. Students will also be able to demonstrate a strong knowledge of the underlying physics of these systems and be able to perform detailed calculations regarding the system performance metrics of brake systems, hydraulic systems, and electric motor systems.

This course covers an introduction to the wind turbine major components, including blades and rotors, rotor hubs, blade pitch mechanisms, drive train and support structure, electrical system, gearboxes, nacelles, and towers. Students will learn the fundamental physics applied to all wind turbine systems and energy conversion systems. Topics include pitch systems, yaw systems, power conversion systems, drive trains, basic aerodynamics, and turbine control systems. Upon successful completion of this course, students should be able to interface with typical control systems at multiple control levels, including sensor and I/O level, PLC turbine control, and SCADA system.
control of wind farms. Students will also be able to demonstrate basic electrical wiring skills, evaluate the performance of a fiber optic transmission system, and install and repair fiber optic lines and connectors.

WN117 WIND TURBINE MAINTENANCE AND TROUBLESHOOTING
6.0 CREDIT HOURS
100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS
PREREQUISITES: EL111, EL112, EL113, WN111, WN112, WN113, WN114, WN115
This class ties together all concepts learned in the Wind Energy Technology program and applies this knowledge to practice routing inspection and maintenance procedures. In-depth lectures and labs demonstrate inspection and troubleshooting of electrical and mechanical systems, using test equipment and troubleshooting techniques. The course provides training on fasteners and torque systems and a certificate if provided. Upon successful completion of this course, students should be able to safely perform basic inspections and maintenance, and troubleshoot a wind turbine system for typical problems. The course will also include the 30-hour OSHA Construction Safety training and certificate.

WN118 WIND TURBINE SYSTEMS AND COMPONENTS II
6.0 CREDIT HOURS
100 CLOCK HOURS: 20 LECTURE HOURS / 80 LAB HOURS
PREREQUISITES: EL111, EL112, EL113, WN111, WN112, WN113, WN114, WN115, WN117
This course builds upon previous systems and troubleshooting courses to develop a deeper understanding of wind turbine systems and components. Advanced topics include pitch systems, yaw systems, generator systems, control systems, hydraulic systems, electric motors and drives, gearboxes, shaft couplings, and shaft alignment methods. Students will focus on how component performance and compatibility within these systems affects system-level performance. Upon successful completion of this course, students should be able to explain in detail the functions and underlying physics of all these systems in a variety of manufacturer’s configurations. Students will be able to demonstrate generator shaft alignment on a full-scale turbine generator using both manual and laser-based systems.

WN119 ADVANCED WIND TURBINE TROUBLESHOOTING
9.0 CREDIT HOURS
145 CLOCK HOURS: 35 LECTURE HOURS / 110 LAB HOURS
PREREQUISITES: EL111, EL112, EL113, WN111, WN112, WN113, WN114, WN115, WN116, WN117
This course is an advanced wind turbine troubleshooting course. Students will apply all concepts from the entire program and troubleshoot live turbines at full control power levels. Emphasis is on safety and critical thinking skills in troubleshooting all turbine subsystems. Upon successful completion of this course, students will be able to safely enter a wind turbine work environment and perform routine maintenance in accordance with all typical industry safety and maintenance procedures. In addition, students will be able to diagnose multiple turbine fault conditions and perform repairs as necessary to restore the turbine to operational condition. Completion of this course requires passing a comprehensive written test covering material from the entire curriculum, as well as a practical exam demonstrating readiness for fieldwork.