

# Academy of Engineering

## Career Pathway: Science, Technology, Engineering & Mathematics

### Program Strand: Aerospace Technology

Students who choose a career in Aerospace Technology work with or operate a variety of aircraft or spacecraft systems. They may use traditional tools, as well as electronic and computerized equipment to diagnose, service, and repair prop planes, jets, gliders or spacecraft. Employees may also repair or design a variety of technology systems aboard aircraft, such as avionics, electrical, and pneumatic systems, etc.

#### Secondary Career Academy Development Timetable Academy classes are listed in bold type.

Pre-Academy Grades 6 – 8	Grade 9	Grade 10	Grade 11	Grade 12
6 <sup>th</sup> grade—Middle Moves 7 <sup>th</sup> grade—Career Preparation Requirement* 8 <sup>th</sup> grade—Transition Tools  MJ Wheel 8600020015 Introduction to Technology 860001001 Exploring Technology 860002012 Exploration of Aerospace Technology 860005001 Exploration of Transportation Technology 860024002 Exploration of Power & Energy Technology 860025002	English I	English II	English III	English IV
	Algebra or higher	Geometry or higher	Algebra II or higher	Pre-calculus or Other Mathematics Course
	Earth & Space Science or Biology	Biology or Chemistry	Chemistry or Physics or Physical Science	Science Elective or Other Elective
	World History	Elective	American History	American Government / Economics
	9 <sup>th</sup> Grade Transition	Foreign Language or Other Elective	Foreign Language or Other Elective	Foreign Language or Other Elective
	<b>Aerospace Technology 1 860058001</b>	<b>Aerospace Technology 2 860068001</b>	<b>Aerospace Technology 3 860178001 (Honors)</b>	<b>Advanced Technology Applications 860190001 (Honors)</b>
	Elective	Elective	Elective	Elective
	Elective	Elective	Elective	Elective

#### Suggested Electives:

- Students may in their Junior or Senior year opt to participate in the Career Experience Opportunity (CEO) internship program using the following course numbers: Workplace Essentials – 83003101A (Honors .5) and CEO internship – 0500330CE (Honors .5).
- Students may complete more than one program within the Academy of Engineering providing courses are offered at the school site.
- In addition, students can choose to enroll in Engineering Technology, Drafting/Illustrative Design Technology, Power & Energy Technology, or Electronics Technology classes to enhance their marketability.

To find a Miami-Dade County Public High School with this Program Strand, please link to [http://ssr.dadeschools.net/acad\\_tally\\_schls.pdf](http://ssr.dadeschools.net/acad_tally_schls.pdf)

Internship Opportunities	Student Organizations / Clubs	Earn Upon Completion
<ul style="list-style-type: none"> <li>• Internship</li> <li>• Cooperative Education</li> <li>• Job Shadowing</li> <li>• School-Based Enterprise</li> <li>• Service Learning</li> <li>• Dual Enrollment</li> <li>• <a href="#">Portal to CEO</a></li> </ul>	<ul style="list-style-type: none"> <li>• Junior Engineering and Technical Society</li> <li>• U.S. FIRST Robotics League</li> <li>• Technology Student Association (TSA)</li> <li>• SECME</li> </ul>	<ul style="list-style-type: none"> <li>• Industry Title &amp; FLDOE OCP's correlated to the individual areas.</li> <li>• For more information on the Florida Department of Education Bright Futures Scholarship Programs: Florida Academic Scholars Award (FAS), Florida Medallion Scholars Award (FMS), and Florida Gold Seal Vocational Scholars Award (GSV) please contact a guidance counselor or visit: <a href="http://www.floridastudentfinancialaid.org/ssfad/factsheets/BF.htm">http://www.floridastudentfinancialaid.org/ssfad/factsheets/BF.htm</a>.</li> <li>• For more information on advanced standing at local public and private post secondary institutions as established per articulation agreements please contact a guidance counselor.</li> </ul>

#### POSTSECONDARY OPTIONS

Certification Programs	Community College (A.A./A.S.) or Proprietary Programs	Four-Year College and University Programs	Other
<ul style="list-style-type: none"> <li>• FAA Aircraft Mechanic</li> <li>• Aircraft Pilot License</li> <li>• Aircraft Engine Specialist</li> <li>• RADAR Electronics Technician</li> <li>• FAA Aviation Maintenance Technician</li> <li>• <a href="#">George T. Baker Aviation</a></li> </ul>	<ul style="list-style-type: none"> <li>• Aeronautical Science</li> <li>• Air Traffic Management</li> <li>• Aircraft Piloting</li> <li>• Aviation Maintenance Technician</li> <li>• <a href="#">Miami Dade College</a></li> </ul>	<ul style="list-style-type: none"> <li>• Mechanical Engineering</li> <li>• Aeronautical Science</li> <li>• Avionics Engineering</li> <li>• Applied Meteorology</li> <li>• <a href="#">Florida Memorial University</a></li> <li>• <a href="#">Embry Riddle University</a></li> <li>• <a href="#">Univ. of Central Florida Mechanical, Materials and Aerospace Engineering</a></li> </ul>	<ul style="list-style-type: none"> <li>• On the job training</li> <li>• Apprenticeship</li> </ul>

#### CAREER OPTIONS

Entry Level	After Post-Secondary Education
<ul style="list-style-type: none"> <li>• Aircraft Maintenance Worker</li> <li>• Cargo and Freight Agents</li> <li>• Avionics Technician Assistant</li> <li>• Airline Mechanic Assistant</li> <li>• Sheet Metal Mechanic</li> <li>• Engine Assembler</li> </ul>	<ul style="list-style-type: none"> <li>• Commercial Airline Pilot</li> <li>• Aircraft Designer</li> <li>• Passenger Aircraft Interior Designer</li> <li>• Avionics Technician</li> <li>• Air Traffic Controller</li> <li>• Aircraft Mechanical Safety Inspector</li> <li>• Aerospace Engineer</li> <li>• Astronaut</li> </ul>

