# **Academy of Engineering**

# Career Pathway: Science, Technology, Engineering & Mathematics

**Program Strand: Technology Studies**Students who choose a career in Technology Studies understand the role of technology in everyday life along with the broad range of technology skills which are involved within the fields of engineering, design, invention, construction, information technology, and innovation.

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
6th grade—Middle Moves 7th grade—Career Preparation Requirement 8th grade—Transition Tools  MJ Wheel 8600020015 Introduction to Technology 860001001 Exploring Technology 860002012 Exploration of Production Technology 860005001 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
	9th Grade Transition	Foreign Language	Foreign Language	Foreign Language
	Technology Studies 1 860051001	Technology Studies 2 860061001	Technology Studies 3 860071001 (H)	Advanced Technology Applications 860190001 (H)
	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 Drafting/Illustrative Design Technology 1-3 Power & Energy, 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

Internship Opportunities	Student Organizations / Clubs	Earn Upon Completion
Internship Cooperative Education Job Shadowing School-Based Enterprise Service Learning Dual Enrollment Portal to CEO	<ul> <li>Technology Student Association (TSA)</li> <li>U.S. FIRST Robotics League</li> <li>SECME</li> <li>Junior Engineering and Technical Society</li> </ul>	<ul> <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	
Engineering Technology     Associate Engineering Technologist     Certified Engineering Technician - Fire Alarm Systems     Miami Dade College School of Computers and Engineering	Manufacturing Engineering     Technology     Engineering Technology     Drafting     Pre-engineering     Miami Dade College School of Computers and Engineering	<ul> <li>Civil Engineering</li> <li>Electrical Engineering Technology</li> <li>Biomedical Engineering</li> <li>Robotics &amp; Mechatronics Technology</li> <li>Environmental Engineering</li> <li>Univ. of South Florida College of Engineering</li> <li>Univ. of Central Florida Mechanical, Materials and Aerospace Engineering</li> <li>Dept.</li> <li>Florida A &amp; M University and Florida State University College of Engineering</li> <li>Univ. of Florida College of Engineering</li> <li>Univ. of Florida College of Engineering</li> <li>Univ. of Florida College of Engineering</li> </ul>	

### CAREER OPTIONS

Entry Level		After Post-Secondary Education	
<ul> <li>Engineering Assistant</li> <li>Telecommunications Technician</li> <li>Computer Network Systems Assistant</li> </ul>	<ul> <li>Digital Equipment Technician</li> <li>Computerized Programmable Controller</li> <li>Audio Technician</li> </ul>	Network Engineer/Administrator     Technical Support Specialist     Systems Engineer/Administrator	<ul> <li>Industrial Research Scientist</li> <li>Digital Communications Administrator</li> <li>Consultant</li> <li>Inventor</li> </ul>