

Academy of Engineering

Career Pathway: Science, Technology, Engineering & Mathematics

Program Strand: Engineering Technology

Students who choose a career in Engineering Technology have diversified engineering skills in order to work on a variety of projects. Many employees may specialize with a specific area of engineering such as: electrical, computer, manufacturing, civil, environmental, mechanical, or architectural.

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 th grade—Middle Moves 7 th grade—Career Preparation Requirement 8 th 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 |
| | 9 th Grade Transition | Foreign Language or Other Elective | Foreign Language or Other Elective | Foreign Language or Other Elective |
| | Engineering Technology 1 860057001 | Engineering Technology 2 860067001 or Engineering Technology 2 860067002 (H) | Engineering Technology 3 860177001 (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, 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 |
|---|---|---|
| <ul style="list-style-type: none"> • Internship • Cooperative Education • Job Shadowing • School-Based Enterprise • Service Learning • Dual Enrollment • Portal to CEO | <ul style="list-style-type: none"> • Junior Engineering and Technical Society • SECME • Technology Student Association (TSA) • U.S. FIRST Robotics League | <ul style="list-style-type: none"> • Industry Title & FLDOE OCP's correlated to the individual areas. • 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: http://www.floridastudentfinancialaid.org/ssfad/factsheets/BF.htm. • For more information on advanced standing at local public and private post secondary institutions as established per articulation agreements please contact a guidance counselor. |

POSTSECONDARY OPTIONS

| Certification Programs | Community College (A.A./A.S.) or Proprietary Programs | Four-Year College and University Programs |
|---|---|--|
| <ul style="list-style-type: none"> • Engineering Technology • Associate Engineering Technologist • Certified Engineering Technician - Fire Alarm Systems • Miami Dade College School of Computers and Engineering | <ul style="list-style-type: none"> • Manufacturing Engineering Technology • Engineering Technology • Drafting • Pre-engineering • Miami Dade College School of Computers and Engineering | <ul style="list-style-type: none"> • Civil Engineering • Electrical Engineering Technology • Biomedical Engineering • Robotics & Mechatronics Technology • Environmental Engineering • Florida International University College of Engineering and Computing • Univ. of South Florida College of Engineering • Univ. of Central Florida Mechanical, Materials and Aerospace Engineering Dept. • Florida A & M University and Florida State University College of Engineering • Univ. of Florida College of Engineering |

CAREER OPTIONS

| Entry Level | After Post-Secondary Education |
|--|--|
| <ul style="list-style-type: none"> • Engineering Assistant • Telecommunications Technician • Computer Network Systems Assistant • Digital Equipment Technician • Computerized Programmable Controller • Audio Technician | <ul style="list-style-type: none"> • Civil Engineer • Architectural Engineer • Engineering and Science Manager • Network Systems Analyst • Industrial Engineer • Science Technician • Geoscientist • Physicist |