Innovation Academy for Engineering, Environmental & Marine Science

Foy H. Moody High School Science & Health Center
Overview

- Established 2007 with assistance from THSP/TEA T-STEM Grant
- Grades 9-12
- School within a School/Magnet School Drawing from all CCISD
- State Designated STEM (Science, Technology, Engineering & Mathematics) School
- Teachers utilize Inquiry/Project Based Learning methodology
- Activities focus on Engineering, Environmental & Marine Science (with emphasis on socio-dynamics of Gulf of Mexico)
- Nationally Certified Project Lead the Way Engineering School
Current Demographics

- Approximately 305 students in grades 9 – 12
- 96 % Hispanic
- 88 % Low SES
- 86% First Generation College-Goer
- 48% Female – 52% Male
- Most grade 9 students enter with deficits in Math/Science
- TAKS scores consistently outperform CCISD average
- Exit Level TAKS – 100% passing in all areas
- Students selected based on interest only
Purpose of the Innovation Academy

- Prepare students for college programs and careers in the fields of Science, Technology, Engineering, and Math.

- To expose students to exciting activities that involve math and science.
Innovation Academy Pathway

- All Innovation Academy students follow a 4 – Year pathway

- Specialized courses include:
  - Aquatic Science
  - Digital Electronics*
  - Introduction to Engineering Design*
  - Principles of Engineering*
  - Aerospace Engineering*
  - Biotechnical Engineering*
  - Civil/Architectural Engineering*
  - Environmental Science*
  - Earth & Space Science
  - Research, Design & Development (senior research project)*
  - AVID (Achievement Via Individual Determination)
  - AVID Tutor (Independent Study in ELA)*

*Courses in RED are weighted honors courses.
Business/Industry/Post-Secondary Partnerships

- CITGO (major partnership)
- TAMUCC (scholarships)
- Harte Research Institute
- UT Marine Science Institute
- Various Coastal Bend Engineering Firms (ACE Mentors)
- Coastal Bend Bays & Estuaries Foundation
- Gulf of Mexico Foundation
- Texas State Aquarium
- Flint Hills
- Valero
- Young Eagles
Hands On Science
Field Research
Environmental Parameters of Corpus Christi Bay
Sea Grass Marsh Planting
Introduction to Kayak Certification
Traveling to the LM Field Station
Aerospace/Young Eagles
Egg Drop Engineering
College Visits
ROV – Remote Operating Vehicle
Testing Underwater Robots
Engineering Olympics Medal Winners
BEST Robotics
BEST Robotics Pilots
FIRST Robotics
STEA Engineering Competition
SCUBA
Summer Bridge Programs

- Freshmen Orientation
- GATE – TAMUCC future science/math teachers
- MATE Underwater Robotics
- Kayak Camp
- Introduction to SCUBA
- GEMS – TAMUK girls engineering
- YESTexas – TAMUK engineering
- TexPREP – Del Mar engineering
- United States Naval Academy – STEM Summer Camp
- National Marine Fisheries Summer Internship Program
- MIT MITES/UT MITES
- TAMU Unplugged (Computer Science/Engineering)
- TAMU College of Veterinary Medicine