MISSION

The primary mission of ACES is to maintain high school students in the STEM career pipeline and to prepare them for lifelong learning and achievement by focusing on student STEM career interests and pathways at both the occupational and professional levels.

VISION

Students graduating from ACES will be capable, confident lifelong learners who will be prepared for collegiate or advanced level STEM study. They will possess and reflect the desirable qualities of an Oak Ridge High School and Conroe ISD graduate.

CONROE INDEPENDENT SCHOOL DISTRICT

For more information contact:

Dr. Mike Papadimitriou, *Headmaster*
mpapadimitriou@conroeisd.net

ACADEMY FOR CAREERS IN ENGINEERING AND SCIENCE
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936-709-5795 • 936-709-5731
936-709-5842 *(fax)*
website: aces.conroeisd.net
email: aces@conroeisd.net

NCSSS National Consortium of Secondary STEM Schools
ncsss.org

THE ACADEMY FOR CAREERS IN ENGINEERING AND SCIENCE

For 8th grade students at Irons, Knox, McCullough, and York junior high schools.

Applications may be obtained from school counselors at York, Knox, Irons or McCullough junior high schools or online at:
aces.conroeisd.net
Email: aces@conroeisd.net

ACADEMY FOR CAREERS IN ENGINEERING AND SCIENCE

Flexibility of the Program Offerings

ACES exists to prepare students for a range of STEM career pathways by differentiating coursework after core requirements. Beyond these core requirements, students have a number of options for elective coursework. Professional pathways include traditionally established programs for those planning collegiate level undergraduate and graduate study. These pathways are for students planning collegiate study in biology, chemistry, physics, environmental science, mathematics or related careers. Students planning to enter careers in engineering, architecture, medicine, nursing, computer science and other STEM related professional careers should pursue the professional path which includes a strong foundation of preAP and AP coursework. Professional careers include engineering, nursing (BS level), medicine, architecture, computer science, etc.

Occupational pathways include established STEM-related Career and Technology (CTE) programs: agriculture, food and natural resources; architecture and construction; technology and communication; health science; human services; information technology; Education; Law and public safety; manufacturing; biotechnology; electronics; robotics; engineering design; and transportation and logistics. The occupational pathway is designed for students planning to pursue associate degree level study in community college settings or terminal bachelor's degrees. Occupational careers include careers like pharmacy technician, engineering technician, vet technician, nursing (AS degree), etc.

Somewhere in Between

In reality, these two pathways represent extreme choices. Very often, students' interests lie somewhere in between these extremes. As a result ACES attempts to develop a valid and customized plan of study based upon the unique needs of each student.

NCSSS
National Consortium of Secondary STEM Schools
ncsss.org

The Academy for Careers in Engineering and Science
is a member of the
National Consortium of Secondary STEM Schools

ENTRY REQUIREMENTS

- Minimal grades of 85 in math and science
- An overall grade average of B
- Evidence of excellent conduct and attendance with no disciplinary actions
- Mastery of all subtests of the content benchmarks associated with STAAR/EOC
- Evidence of math, problem-solving, and reading aptitude through standardized test scores
- A strong interest in academic pursuits and in science, health, engineering, math, robotics, and/or technology and CTE careers
- Interview—both students and parents
- Standardized test scores will be used as qualifying criteria
- Teacher evaluations considered
- Complete, on-time application
- PSAT 8/9 scores
- Commitment to completion of the four-year program of study
- Interest in career areas offered by program
- Interest in small learning community

COURSES AND REQUIREMENTS

Science Core
(all students)
Biology I Pre-AP
Chemistry I Pre-AP
AP Physics or Physics
AP Science Electives

Mathematics Core
(all students)
Four years of college preparatory mathematics
(at least one year at or beyond pre-calculus)

Technology Core
(by choice, professional, or occupational students)
Computer Science
AP Computer Science
Any CTE track

AP Specialization Sequence
(professional track students)
AP science course in grades 11 and 12
Advanced courses in CTE Track
(Occupations students must complete a formal CTE track)

CTE Specialization Course Sequence
(occupational track students)
State-prescribed sequence of CTE courses
for specialization in an area

Career Explorations
(all students)
Explorations in Occupations and Professions *(14 field trips)*
Internship for local credit or field experience

Independent Projects
(all students)
Research and Problems I, II, III, and IV
for independent, co-curricular projects done
in grades 9, 10, 11, and 12
(e.g., science fair, robotics, skills USA, or appropriate activity or competition associated with specialization)

Community Service
(all students)
Minimum of 100 hours