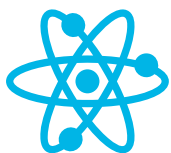




STEM (Science, Technology, Engineering, Mathematics) Program Guide

STEM programs introduce students to planning, managing, and providing scientific research and professional and technical services, including laboratory and testing services, and research and development services.



Start In High School. Follow *Your* Perfect Path.

High Schools

By participating in high school CTAE programs, students can create opportunities to continue their studies in college, pursue an entry-level job, or serve in a related field in the military. (See back for a full list of programs.)

TSA

The Technology Student Association is the Career & Technical Student Organization (CTSO) that gives students an opportunity to participate in career-related competitions across the state and nation, and gain leadership experience.

Certifications

After completing a CTAE pathway, students prepare for NOCTI, Autodesk, AutoCAD certification exams, at CTAE expense, that may qualify them for entry-level jobs and/or college credit.

Work-Based Learning

Students have the opportunity to be released early from school to work in positions related to their CTAE pathways.

Direct-to-Work

Rigorous high school programs prepare students for STEM careers upon graduation.



Sample Entry-Level Positions

Mechanical Drafters	\$55,920
Civil Engineering	\$77,560
Electronics Engineering	\$91,410
Computer Hardware Engineers	\$95,567

Data source for the above information: GDOL Labor Market Explorer/EducatingEngineers.com

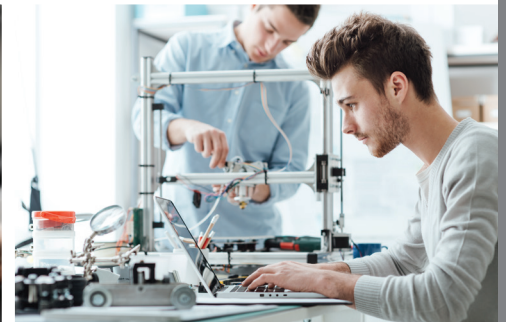
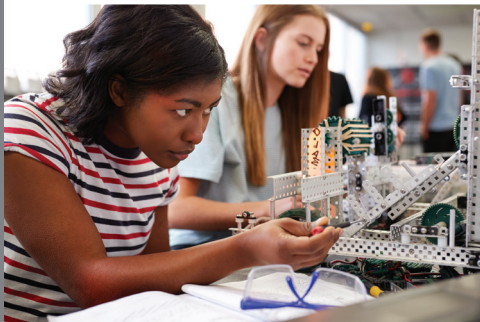
Desired Aptitudes & Skills

- Interacting with Computers
- Evaluating Information
- Making Decisions and Solving Problems
- Communication
- Analyzing Data Sources

MCS D STEM Programs

Engineering Drafting & Design: This pathway provides an introduction to the techniques for creating solid models of engineering designs. Topics include three-dimensional modeling of parts and assemblies, visualization, orthographic and isometric free-hand sketching, and computer-generated design documentation. Students will examine elements of the design process including the history of innovation and invention and application concepts of design. Students will demonstrate and apply the design process by designing and/or altering a system, product or service. *(Jordan)*

Engineering & Technology: In this pathway, students will combine hands on projects that lead to careers in architectural, biomedical, chemical, civil, computer, science, electrical, environmental, industrial, manufacturing, materials, mechanical, nuclear engineering, and engineering technology. Students build solid technical writing, comprehension, calculation, problem-solving, and technical skills. *(Northside)*



For more information, contact your school counselor, CTAE Supervisor, or visit the Muscogee County CTAE website by scanning the QR code on this document.



Non-discrimination statement

The MCS D CTAE Department does not discriminate on the basis of race, color, sex (including pregnancy and related conditions), religion, national origin, age, military status, disability, or any other legally protected status in its educational programs and activities, and provides equal access to the Boy Scouts and other designated youth groups as appropriate. Lack of English language skills will not be a barrier to admission and participation. Equity coordinators are available to address allegations of discrimination. For additional information or referral to the appropriate system coordinator, contact Victoria Thomas, CTAE Director, at 2960 Macon Road, Columbus, Georgia 31906; 706-748-2094.