

Program Goal

The overall goal of The Grassfield High School Governor's STEM Academy is to provide students with STEM enriched 21st-century technological skill and knowledge necessary to succeed in postsecondary education and the work force.

Three major career pathways - engineering and technology, programming and software development, and marketing management - comprise the program of study. The following courses will serve as the core STEM academy curriculum.

Engineering and Technology - *Project Lead the Way Curriculum*

Introduction to Engineering- **9th grade course** (weighted .025)

Principles of Engineering (weighted .025)

Digital Electronics (weighted .05)

Aerospace Engineering (weighted .05)

Civil Engineering and Architecture (weighted .05)

Engineering Design and Development (weighted .05)



Programming and Software Development

IT Fundamentals - **9th grade course**

Programming

Advanced Programming (weighted .025)

Database Design/Management

Advanced Database Design/Management (weighted .025)

Marketing Management

Leadership and Entrepreneurship Education - **9th grade course**

Leadership Development

Global Marketing and Commerce

Advanced Global Marketing and Commerce (weighted .025)

Sports Entertainment and Recreation Marketing

Advanced Sports, Entertainment, and Recreation Marketing (weighted .025)

The courses listed are only offered at Grassfield High School. Additional Chesapeake Public Schools courses are available for STEM Academy credit.

Note: A technical writing component will be incorporated into the curriculum of each STEM Academy course.

The academy's three career pathways will offer choices to the students. Academy students will be required to take at least one academy course per year in order to remain in the program. Students will elect courses of interest from one career pathway only or from more than one career pathway according to their individual talents, needs, and interests as long as all prerequisites have been met. Furthermore, academy students will be required to work toward earning one of the academy certificates outlined below.

GOLD CERTIFICATE

The student must:

- &☞ Pass at least six STEM Academy courses.
- &☞ Complete a minimum of two state completer sequences.
- &☞ Earn at least two industry certifications.
- &☞ Complete an exit portfolio.
- &☞ Participate in at least 15-20 hours of approved job shadowing, internship, and/or mentorship activities.
- &☞ Maintain a minimum 3.0 weighted GPA overall.

SILVER CERTIFICATE

The student must:

- &☞ Pass at least four STEM Academy courses.
- &☞ Complete a minimum of one state completer sequence.
- &☞ Earn at least one industry certification.
- &☞ Complete an exit portfolio.
- &☞ Participate in at least 15-20 hours of approved job shadowing, internship, and/or mentorship activities.
- &☞ Maintain a minimum 2.0 weighted GPA overall.