## Science, Technology, Engineering, and Mathematics Academy
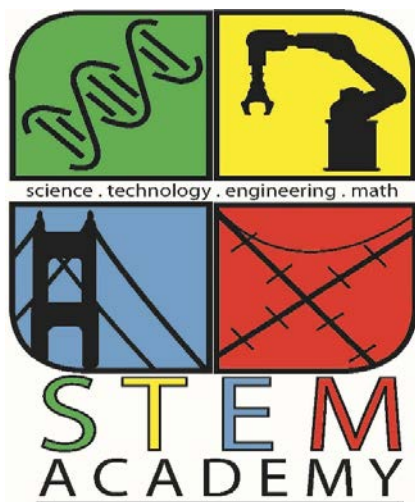
Boyertown Area Senior High is excited to announce a new STEM academy. The Boyertown STEM Academy provides rigorous educational opportunities in science, technology, engineering, and mathematics while developing strong interpersonal, communication, research, analytical, and technical skills. Project-based experiences with community connections and engaged learning will prepare our STEM students for global success.

## STEM Academy
### Graduation Requirements

| Subject | Minimum Credit Requirement - 28 | |
|---|---|---|
| English | 4 | 9th Eng; 10th Eng; 11th Eng; and 12th Eng; Choice based on program |
| Social Studies | 4 | 9th US; 10th MW; 11th Civics; 12th Choice based on program |
| Math | 4 | 9th Geo; 10th Alg. II; 11th Pre-calc.; 12th Choice based on program |
| Science | 3.34 | 9th Bio; 10th Chem.; 11th Physics |
| Health and Physical Education | 2.66 | • 9th and 10th Health/Physical Education – 1.66 credit<br>• Physical Education – 1 credit |
| World Language | 0.5 - 1 | One planned course ** |
| Required STEM Courses | 5 | At least one STEM elective is required per year. |
| Required Choice Electives | 4- 4.5 | Students may choose from either a STEM or a non-STEM field of study to fulfill the CHOICE ELECTIVE credits. |

*Mentorships/Internships/Externships/work experiences opportunities for credit*

** most colleges/universities recommend at least two years

## STEM Academy Requirements

**1. Senior collaborative research & design project that focuses on a specific field of STEM**
Students will work with their senior presentation project Advisor, and a local STEM professional from our list of partners to complete their Career portfolio project. This portfolio will be presented as part of the senior research project.

**2. Participate in career fair and student showcase**
The Career fair will be held on the BASH campus and will focus on educating and inspiring our students to further their studies in STEM related fields. Students will be expected to create a working relationship with one of the presenters who will then serve as a mentor for their senior research project. A student showcase will be held at the conclusion of each school year and will focus on exhibiting student work. Local Academy specific professionals will also be involved to provide feedback and expertise to students.

**3. Digital portfolio**
Students will create a digital portfolio showcasing all work created and skills learned throughout the program. The digital portfolio will highlight the work throughout your high school career and include a personal reflection.

**4. Guest Lecture Series and Academy Sponsored / Approved Events**
All students will be required to attend a certain number of guest lecture series, academy sponsored events, and/or other academy approved events each year. Scheduled events will be posted and approved by the high school administration. Speakers will include local scholars and/or business leaders who promote high academic achievement. Academy Events or Approved Events may be on and off campus. It is suggested that students attend 4 of these events per year. A minimum of 12 total sessions over the course of grades 10-12 will be required. A reflective response is required to receive credit for attending each event and will be added to their digital portfolios.