

# East Hamilton

*TIE, Tinker, Innovate, Engineer*

*STEM Hybrid*

## The TIE Institute: Tinker, Innovate, Engineer

Pathways: STEM (Science, Technology, Engineering, Math) Hybrid

### Future Ready Institutes Highlights:

- ★ Small Learning Communities - Students will be a member of a smaller learning community, or “school within a school” containing students all with similar career interests. Students will take a battery of ‘hard’ math and science coursework throughout their high school career with an embedded experience in our eLab (FabLab) for the purpose of tinkering, innovating, and engineering. TIE Institute students and their parents are interested in a two (2) or four (4) year Physics, Mathematics, Engineering, Computer Science, or similar field post-secondary experience and desire a rigorous High School experience the a potential large battery of honors, AP (Advanced Placement), Dual Enrollment, or CLEP\* coursework.
- ★ Engaging Learning Opportunities - Students will be engaged in unique project based learning opportunities, hands on learning as well as instruction from an expert staff with real world connections around the career theme. The TIE Institutes’ faculty features researchers, engineers, and offers the only Calculus based AP Physics in the County, either public or private school. Students will complete a capstone project yearly as a exhibit of their learning.
- ★ Business and Community Partnerships - Institutes will be connected to local business and community partners. These partnerships will allow for opportunities for students to learn from successful career professionals.
- ★ Post-Secondary Jumpstart - The institute will allow for students to obtain AP-Advanced Placement and Dual Enrollment opportunities. TIE students will work with a counselor and experts in the field to most appropriately develop a challenging, yet attainable path schedule.

### Sample Student Schedule

#### *Freshman Year*

TIE: History of Science and Technology

STEM Pathway course

Math (Standard or Honors)\*

English (Standard or Honors)\*

Science (Physical World Concepts)\*\*

Social Studies (Standard, Honors, AP)\*

Core/Elective (Standard, Honors, AP)\*

Core/Elective (Standard, Honors, AP)\*

#### *Sophomore Year*

TIE: eLab 1

Math (Standard, Honors, AP)\*

English (Standard or Honors)\*

Science (Standard, Honors, AP)

PE/Personal Finance

STEM II or Coding 1\*

Core/Elective (Standard, Honors, AP)\*

Core/Elective (Standard, Honors, AP)\*

#### *Junior Year*

TIE: eLab 2, Technical Writing, Sc. Res, AP Research/Seminar

Math (Standard or Honors)\*

English (Standard or Honors)\*

Science (Physical World Concepts)\*\*

Social Studies (Standard, Honors, AP)\*

STEM III or Coding II or AP Computer Science\*

Core/Elective (Standard, Honors, AP)\*

Core/Elective (Standard, Honors, AP)\*

#### *Senior Year*

TIE: eLab 3, Technical. Writing, AP, Research/Seminar

Math (Standard, Honors, AP, CLEP or substitute)\*

English (Standard, DE, AP, or Honors)\*

Science (Standard, Honors, AP)\*

Social Studies (Standard, Honors, DE, CLEP)\*

STEM IV or AP Computer Science A\*

Core/Elective (Standard, Honors, AP)\*

Core/Elective (Standard, Honors, AP)\*

\*Advanced Placement, Dual Enrollment or Honors Class courses require input from parents and teachers prior to enrollment.

### Contact Us

ehmhs.hcde.org  
423.893.3535

ehhsfutureready@hcde.org@hcde.org  
@HCSfutureready