

Engineering

LEVEL ONE

Principles of Engineering*

LEVEL TWO

Engineering Design I

LEVEL THREE

Engineering Design II*

LEVEL FOUR

Engineering Practicum, WBL or AP Physics

ABOUT THE PROGRAM OF STUDY

The Engineering program of study designed for students interested in the various disciplines of engineering and engineering technology. Course content is arranged around four sequenced courses that provide students with the opportunity to develop **critical thinking** skills and understanding of **engineering concepts**. Students then apply these skills in conjunction with the multi-step engineering design process to solve real-world problems using **Solid Modeling**, **3D Printing**, and **digital electronics**. The capstone Engineering Practicum course has students complete a design project, report the results, and present their project. Students have the option to complete AP Physics or Work-Based Learning as an alternative to the Engineering Practicum course.

NATIONAL INDUSTRY

CERTIFICATION

*Denotes an NIC course



LEARNING THAT WORKS.™

ASSOCIATE
Mechanical
Design

SOLIDWORKS

What's the deal with NIC?

Courses that are aligned to state-approved **National Industry Certifications** are labeled as “NIC” courses. Students who participate in CTE courses with the “NIC” label and may be eligible for additional quality points and final-grade percentage points based upon the Knox County Board of Education’s Uniform Grading Policy (I-341). **The same weight as an AP course.**

One (1) quality point shall be added to the numerical quality point value corresponding to the letter grade received in an early postsecondary course. Advanced Placement, International Baccalaureate, industry certification, Statewide Dual Credit or Dual Enrollment: A=5, B=4, C=3, D=2, F=1.

Percentage points are additional points added on to a student’s final grade after he/she sits for the culminating exam(s).

Four (4) percentage points shall be added to the grades used to calculate the semester average for Statewide Dual Credit Courses and Industry Certification Courses.

Robotics Team #4576, Red Nation Robotics

All skill levels are welcomed and needed, technical or non-technical. Teams need all kinds of skills to succeed, so what are you good at? We have a job for you. And we’ll probably teach you a few new ones while you’re with us.