# **Approved EITC Programs**



Preserving Excellence, Building a Dream

## Project Lead the Way Pre-Engineering Program

Project Lead the Way (PLTW) has become the top high school STEM (Science, Technology, Engineering and Math) program in the country and Parkland has participated in the program since 2002. Through this initiative, we offer our students a quality STEM program with a strong emphasis on promoting careers in Engineering. The Project Lead the Way National Engineering curriculum and are heavily used in the following classes:

Introduction to Engineering Design Principles of Engineering Computer Integrated Manufacturing Digital Electronics Engineering Design & Development Biotechnical Engineering Civil Engineering & Architecture Aerospace Engineering Production Materials and Processes Manufacturing Systems Innovation and Invention

#### After School Science Enrichment Program

The science enrichment program is a ten-session program designed to enhance the fourth and fifth grade science curriculum as well as promote further interest in science. This program was developed by science teachers and is taught by the Science Fair Club students from the high school – essentially providing the opportunity for students to mentor younger students. It gives students interested in science a chance to advance their science skills and knowledge through hands on, interactive, innovative experiments and labs. Funds would be used for the cost of materials and labs in the program as well as to pay for the development of the curriculum by a certified teacher.

#### **Robotics Program**

The Robotics Program is designed to promote students' interest in science and technology in the high school. Using the FIRST (For Inspiration and Recognition of Science and Technology) program as its fundamental base, the program will involve students in the FIRST Vex Robotics Challenge, offering them a new and exciting platform for learning about science, computer programming, mechanical engineering, math and physics along with teamwork, project management and problem solving in groups. Since its inception, the Robotics Club has won many local and national awards.

#### **Summer Acceleration Courses in Algebra II and Geometry**

The Foundation would use EITC funds to offset costs incurred to offer courses for acceleration in Algebra II and Geometry during the summer. Students must be entering grades 9 - 12 in order to enroll and must be residents of

Parkland School District. The course is designed for children who are able to learn at an accelerated pace and would like to advance to the next level of math in September. Students who wish to enter the Honors level of the next course will need to score a minimum course and exit test grade of 85%. Students who score between a 70% and 84% can move on to the next level at either the regular or gifted/high potential level.

## **AP Course Titles**

Supporting one of the largest high schools in Pennsylvania, serving 3,200 students annually, the Foundation supports the following Advanced Placement courses that continuously challenge our student body and offers instruction that provides credits at 2-year and 4-year colleges and universities authorized by the Department of Education:

- English 4
- World History
- Economics
- Government and Politics
- Psychology
- Statistics
- Computer Science
- Biology
- Environmental Science
- Chemistry
- Physics
- Spanish 5
- French 5
- German 5
- Art History

## The Parkland High School Broadcasting Program

Each semester approximately 75 students participate directly in the Parkland High School T.V. studio by taking broadcasting courses, producing morning and mid-day news programs aired throughout the school and community via our community access channels on Service Electric and RCN, and creating special content packages benefiting the school district and the community.

Students learn all aspects of reporting, script writing, editing, and production. This program integrates English, physics, and math components of the core curriculum. Courses emphasize strong writing and communication skills. Students are required to learn advanced computer and technical skills. Many students coming through this program have gone on to study journalism in college or pursue careers in broadcasting.

Each student learns to use every piece of equipment in the studio. The technology and equipment is similar to that found in college and commercial broadcasting studios. Students learn how to operate studio and hand-held cameras, microphones, audio mixers, teleprompters, lighting equipment, the switcher, editing programs, and the video router. Students gain further technical expertise by teaching each other how to use the equipment.

Funds generated will be used to upgrade the broadcasting equipment and keep technology current with industry standards.

## Maker Space Program

The Maker Space program was piloted at Fogelsville Elementary School during the 2015-2016 school year. This program was approved for EITC funding in the spring of 2016, and as a result, the program expanded to include all eight Elementary Schools in the District in the fall of 2016. The program then grew to the middle and high school level during the 2017-18 year. The Maker Space is a part of the school's Media Center/Library that is focused on innovation, engineering and design. In this designated area, students interact with robots, 3D printers, write computer code, and more. The Maker Spaces include books on these topics, as well as books that foster a desire for innovation starting at the kindergarten level. The Maker Space is a result of the DIY Movement that is sweeping our country. By introducing students to the idea of creating and "tinkering", they are exposed to high-demand professions at an earlier age. They also build the skills to adapt to professions that may not even be created yet, or invent them themselves!

#### **Summary**

The above descriptions only list a small percentage of the many benefits to enhance and add value to the science, math, and language arts curriculum. The full impact of such programs to the Parkland School District and the surrounding community cannot be grasped. In order to advance the programs, funding needs to be provided. The positive return on these educational programs will far outweigh the dollars invested into it.