

FVL STEM Academy Community Partnership Executive Summary



The Challenge

In the new global economy, Wisconsin and the Fox Valley region need a workforce of problem solvers, innovators, and inventors who are self-reliant and able to think logically. A key to developing this innovative capacity is strengthening science, technology, engineering, and math (STEM) competencies in all students.

A 2009 study reported that in Wisconsin the jobs most in demand over the next decade will require STEM skills and knowledge, including post-secondary degrees in those fields. STEM related occupations are also among the fastest growing in the state. Despite these increasing demands, the pool of qualified graduates in STEM fields does not meet current needs.

The Role of FVL

As a provider of Christian education in the Fox Valley for over fifty years, Fox Valley Lutheran High School (FVL) recognizes the need to provide students with opportunities to pursue careers well-represented in the region, especially those built on STEM related skills. With this in mind, FVL is excited to introduce its new *STEM Academy*. In partnership with the national organization Project Lead the Way® (PLTW), FVL seeks to provide students with the opportunity to enroll in specialized STEM courses, as well as rigorous general education courses, providing graduates with the greatest opportunity for success in a post-secondary STEM program.

Project Lead the Way

PLTW is a national non-profit STEM education initiative that seeks to provide high schools with rigorous, relevant STEM education. Through an engaging, hands-on curriculum, PLTW encourages the development of a new generation of leaders with problem solving and critical thinking skills, creative and innovative reasoning, and a love of learning. PLTW gives students a brighter future by providing them with a foundation and proven path to college and career success in STEM-related fields.

The PLTW Pathway to Engineering (PTE) high school curriculum is designed as a four-year high school sequence of courses which includes exposing students to the design process, research and analysis, teamwork and communication, engineering standards and technical documentation, among other topics. PLTW students consistently achieve significantly higher scores in reading, mathematics, and science. PLTW graduates earn higher GPAs as college freshmen and are 5 to 10 times more likely to study engineering and technology at the post-secondary level.

Community Partnership Team

An important component of the success and long-term sustainability of the FVL *STEM Academy* is its *Community Partnership Team*. The Community Partnership Team is a way to infuse educators and students with the collective wisdom that is available in the private sector including business and industry, post-secondary, labor, parents, and students.

Participation in the Community Partnership Team will provide many opportunities to assist FVL in its mission to promote STEM education in the Fox Valley:

- Contribute to curriculum development
- Mentors, role models
- Tours and field trips
- Class presentations
- Provide financial/material resources
- Assist in service-learning projects
- Work with teachers
- Job shadowing and internships

Thank you for considering the opportunity to join the STEM Academy Community Partnership Team.