

★ College of Technology Partnering with K-12 Educators



PURDUE
UNIVERSITY



COLLEGE OF TECHNOLOGY

Mission:

The College of Technology educates professional practitioners and managers of science and engineering-based technologies, accelerates technology transfer to business and industry, and develops innovations in the application of emerging technology through learning, engagement, and discovery.

Vision:

The College of Technology will be nationally recognized as the benchmark institution for the education of technology professionals and advancement of the technological economy through engagement and discovery through partnerships with business, industry, and government.



Partner with the College of Technology

Whether it is creating games that help students learn or partnering with schools to increase their ability to deliver pre-engineering education, the College of Technology is well equipped to participate in partnerships that enhance the educational landscape in Indiana.

The College of Technology has created a variety of activities to reach out to students and teachers at all grade levels to showcase the value of an education based in science, technology, engineering, and math (STEM). With our resources — research, faculty, and students — we are able to offer opportunities to be active and to learn within a welcoming STEM community. In the process, we hope to encourage students to consider careers in technology fields.

As the third largest college at Purdue with 10 additional locations across the state, the College of Technology's faculty expertise and physical proximity can regionally assist schools and educators in strengthening STEM disciplines by demonstrating how mathematics and science can be used to better understand technology and engineering.



Project Lead The Way Teachers

Engaging K-12 students on campus

In addition to educating the world's next generation of scientists, educators, leaders, and artists, Purdue University reaches out to younger students to create excitement about college-level education. Within the College of Technology, several camps offered during the academic year and in the summer months provide appealing experiences to demonstrate that education can be fun and worthwhile. These camps also serve to recruit students from all backgrounds.

The camps can focus on the college as a whole or an individual department. From programming robots to building bridges, students of all ages can learn how technology subjects are applied to the world around them.

Project Lead The Way

College of Technology leaders administer Indiana's **Project Lead The Way** program in partnership with Indiana's Departments of Workforce Development and Economic Development.

"Building an exceptional engineering and engineering technology workforce will strengthen Indiana's economic development infrastructure. **PLTW** will continue to play a key role in preparing middle and high school students for success in these critical areas," says France A Córdoba, president of Purdue University.

Project Lead the Way is a pre-engineering/engineering technology program for high school students. It offers a four-year sequence of engineering/technology education courses which, when combined with college preparatory mathematics and science courses in high school, introduces students to the discipline of engineering and engineering technology prior to entering college.

In addition, **Project Lead The Way** teachers are invited to workshops to provide guidance in teaching **Project Lead The Way** courses.

Project Lead The Way also provides a hands-on, middle-level technology education program. This exploratory curriculum focuses on design, electronics, automation, and engineering mechanics.

Purdue engineering/technology teacher education graduates are certified as **Project Lead The Way** teachers in Indiana.

Project Lead The Way is offered in more than 2,300 schools in all 50 states. In 2006, Indiana became the state with the largest number of participating schools as the pre-engineering and engineering technology program grew from 159 to 234 schools, a 47 percent increase. Growth is attributed to the working partnership with the Indiana Departments of Education and Workforce Development, increased awareness of the program and its benefits, and new funding sources. For more information, visit www.tech.purdue.edu/pltw.

Engaging K-12 students across Indiana

Across the state, College of Technology faculty and students are connecting with young students and educators to help generate interest and improve achievements in science, technology, engineering, and math (STEM) education.

At several of the locations across the state, a "Day in College" program affords high school juniors and seniors a sneak peek at the college experience. Counselors from area high schools nominate students for the program. The students and their parents visit for a full day and take a class in each program offered by the location.

In Lafayette, students and faculty in the mechanical engineering technology program sponsor and coach the Sunnyside Middle School ToyChallenge teams. This program, encourages

middle school students (especially females) to use technology to create new toys. Lafayette teams have qualified for the national competition twice.

In Columbus, the college was the host site for the FIRST Lego League qualifying competition. Twelve teams of students, ages 9 – 14, from cities around Indiana gathered to match their programmed Lego robots against each other.

In Richmond, the location provided a free, computer graphics technology day camp. Competitions are also a way to reach out to potential students. The locations in Anderson and Muncie help sponsor an annual Egg Launch competition that challenges students to hurl eggs 25 feet without breaking them.

Each of the College of Technology locations is interested in connecting with area K-12 students and their teachers. Partnerships can help both parties: participating students remain excited about their educational goals, and the College of Technology is able to showcase opportunities to potential students.

For more information about the college's involvement with K-12 education, visit www.tech.purdue.edu/engagement or contact the College of Technology location nearest you.

"Education in science, technology, engineering, and mathematics is critically important as our society grows to rely more and more on them in our daily lives," reports William Walker, director of outreach for Purdue's Office of Engagement. "Strong education that builds STEM literacy will prepare today's students for tomorrow's life decisions and workforce."



For more information about working with Purdue University's College of Technology, visit www.tech.purdue.edu/engagement or contact the location nearest you. If you are not close to a statewide location or are outside of Indiana, contact the West Lafayette location.



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