

### ***Outreach Mission***

*IPFW Outreach Programs offer informal educational opportunities that:*

- ▶ **Engage**
- ▶ **Challenge**
- ▶ **Build Self-Confidence**

through hands-on activities fostering awareness and interest in STEM subjects (science, technology, engineering, and math).



*Future City team members answer questions about their model for a final round judge.*



### **Franklin Electric**

Franklin Electric provides generous support for the administrative staff of the IPFW College of Engineering, Technology, and Computer Science outreach office, making possible a series of competitions, special events, and educational support to local schools.



**Outreach Programs**  
College of Engineering, Technology, and Computer Science  
Indiana University—Purdue University Fort Wayne  
2101 E. Coliseum Blvd.  
Fort Wayne, IN 46805-1499



# Outreach Programs



**College of Engineering,  
Technology, and  
Computer Science**

[www.etcs.ipfw.edu](http://www.etcs.ipfw.edu)

# Outreach Vision

## Can you have fun...

- ▶ *programming a robot?*
- ▶ *designing and building a city?*
- ▶ *researching science and engineering concepts?*
- ▶ *transforming a jumble of Popsicle sticks into a bridge?*

You can and you will! IPFW Outreach Programs are designed to engage students in fun activities and challenging workshops. All of the Outreach Programs have been initiated by faculty members who have a vision for the future of our technology community.

Through competitions, seminars, and workshops, students will be introduced to the world of engineering and technology. Awards and recognition are a key component of the competitive events, recognizing excellence and effort as they reinforce the students' self-confidence. All programs challenge students to think on their feet, solve problems, use their classroom learning, and look to the future.

## Summer Exploration Camps

### Exploration in Leadership

#### GLO Girls Leading Others

**June:** This weeklong program for 7th–12th grade girls develops leadership skills within the context of an all-girl environment and is offered by the Division of Organizational Leadership and Supervision. The camp encourages participants to consider new models of leadership as they develop abilities for exercising leadership in their lives.

### Explorations in Computer Science

#### SPICE Summer Program in Intensive Computer Education

**July:** Two-week computer training for 8th–12th grade students emphasizes computer technologies and a variety of computer languages, as students play games and learn graphic interface. The Department of Computer Science offers the program.

### Explorations in Engineering

#### VEX® Robotics

Two-week program for 8th–12th graders that explores engineering through the design, construction, and programming of a VEX® robot and is offered by the Department of Engineering. Students work in teams as they prepare for a mini-competition and explore a technology-based theme that changes annually.

## Outreach Programs

Contact the College of Engineering, Technology, and Computer Science for this year's specific dates at 260-481-6905.

### FIRST Lego® League Championship Tournament

**December:** Robotic teams of 9- to 14-year-olds explore a yearly theme on this 2–3 month project and then compete with LEGO® robots that must accomplish a number of missions. The project includes research, creativity, programming, and teamwork. Teams advance to this exciting sports-like tournament from qualifying tournaments around the state.

### Indiana Regional Future City Competition

**January:** Seventh and eighth grade teams expand knowledge and skills as they work on a cross-disciplinary project with an engineer mentor. Teams create a computer-designed city, write an essay on a yearly theme, build a city model, and present their project to judges. Winners go to Washington, D.C., for the nationals with all expenses paid.

### MATHCOUNTS

**February:** Students learn complex math skills in algebra, probability, and statistics and then compete against other “mathletes.” The top team goes on to the state competition.

### Sci-Tech-Engineering Challenges

**Various evenings throughout the year:** A series of hands-on team challenges lead by faculty members for middle and high school students designed to introduce STEM careers while involving youth in fun, competitive problem solving challenges. Three to four challenges are scheduled throughout the year.

### High School Career Day

**February:** Offered by ETCS Student Services and Admissions, Career Day is an opportunity for students to explore career options in the engineering and technology fields. Faculty and community presenters offer demonstrations.

### High School Bridge Building Contest

**February:** This Engineer's Week event awards cash prizes to the students who can build the strongest bridge from Popsicle sticks and glue. Students can also enter the bridge drawing contest to win prizes.

### Northeast Regional Science and Engineering Fair

**March:** IPFW hosts K–12 students from an eight county area to showcase their research projects. Students from the junior and senior divisions will advance to the Hoosier State Fair and/or the International Science and Engineering Fair.

### Middle School Career Days

**Two dates in the spring:** Students rotate through a series of demonstrations, introducing topics related to careers in computer science, engineering, and technology.



## Interest Form

Please indicate if you are interested in receiving more information about these programs or sponsoring an event.

Activity	Send Information	Will Sponsor
ETCS Outreach Programs	<input type="checkbox"/>	<input type="checkbox"/>
FIRST LEGO® League Championship	<input type="checkbox"/>	<input type="checkbox"/>
Indiana Regional Future City Competition	<input type="checkbox"/>	<input type="checkbox"/>
MATHCOUNTS	<input type="checkbox"/>	<input type="checkbox"/>
SciTech–Engineering Challenges	<input type="checkbox"/>	<input type="checkbox"/>
HS Career Day	<input type="checkbox"/>	<input type="checkbox"/>
HS Bridge Building	<input type="checkbox"/>	<input type="checkbox"/>
Science and Engineering Fair	<input type="checkbox"/>	<input type="checkbox"/>
MS Career Days	<input type="checkbox"/>	<input type="checkbox"/>
VEX® Robotics	<input type="checkbox"/>	<input type="checkbox"/>
SPICE	<input type="checkbox"/>	<input type="checkbox"/>
GLO	<input type="checkbox"/>	<input type="checkbox"/>

Parent Name: \_\_\_\_\_

Student Name: \_\_\_\_\_

Home Address: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Age: \_\_\_\_\_

E-mail: \_\_\_\_\_

School: \_\_\_\_\_

**Mail to: IPFW**  
**ETCS Outreach Director**  
 2101 E. Coliseum Blvd.  
 Fort Wayne, IN 46805-1499

**Contact: ETCS Director of Outreach Programs**  
 Phone: 260-481-6905  
 E-mail: [dostal@ipfw.edu](mailto:dostal@ipfw.edu)  
 Fax: 260-481-5734