

Discovering...

High School

# Engineering: Rockets, Robots, and Race Cars



Students will explore engineering, technology, and applied science, and learn about the various engineering disciplines—chemical, civil, electrical/computer, mechanical, and nuclear—through hands-on activities and projects. The camp will emphasize the role of engineers as inventors and developers of new products and processes for the benefit of society. Participants will also learn how best to prepare in high school to major in engineering in college.

## CAMP INSTRUCTORS

Penn State Berks faculty and staff members coordinate this camp and lead the campers through the week's planned activities.

Participants have a choice of a commuter or residential option. The camp starts promptly at 8:30 a.m. and concludes at 4:00 p.m. As a commuter participant, lunch is included in the enrollment fee. Residential campers will arrive Sunday afternoon and stay in the campus dorms. All meals and transportation are provided including lunch on Friday. There will be an additional fee for evening activities. Residential camp details will be sent in early June.

**JULY 9-13**

**FEE: \$625/Residential, \$350/Commuter**

**Camp runs Monday–Friday, 8:30 a.m.–4:00 p.m.**

## CAMP OVERVIEW

### Monday–July 9

- Welcome/tour of the campus
- Robotics demonstration—robots and tankbots
- Student competition

### Tuesday–July 10

- Robot driving systems/finish robot activities
- Race cars: intro to vehicle stability
- Remote control vehicle demonstration and competition

\*The camp activities shown are based on last year's camp and are subject to change at the instructor's discretion.



### Wednesday–July 11

- Case study in engineering design/mini baja suspension
- Mag-Lev car fabrication
- Compressed air dragster fabrication and competition

### Thursday–July 12

- Introduction to rocketry
- Rocket design and construction

### Friday–July 13

- Rocket engine and stability basics, stability testing
- Launch safety and launch of video rocket
- Camp wrap-up/certificates

To sign up, go to: [berks.psu.edu/summercamps](http://berks.psu.edu/summercamps)