

How do
engineers
invent new
things?

Is engineering a good
career choice for me?

Why do bridges fail?

Can I use math to
solve real problems?



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Johns Hopkins
University

Whiting School
of Engineering

A Summer Course
for High School
Students



Engineering Innovation

What is Engineering Innovation?

Engineering Innovation, or EI, is an intensive summer course that offers you the opportunity to learn to think and problem-solve like an engineer. You'll apply your knowledge of math and science to practical projects, and see concepts you've learned in high school classrooms come alive. Through lab work, group projects, lectures and assignments, you'll learn how engineers approach real-world problems.

You'll meet other students with similar interests and collaborate on testing theories and finding solutions to engineering problems. You'll compete with other teams to design, build and test the strongest bridge—using only spaghetti and glue.

As you complete EI projects on materials, structures, chemical processes, circuit design and other topics, you'll gain insights into which engineering fields best match your abilities and interests.



What's included?

EI is an intensive multidisciplinary engineering course developed by Johns Hopkins University.

Highlights include:

- College-level lectures
- Hands-on labs
- Individual and team projects/competitions
- Guest talks by engineers working in a variety of fields
- Practical application of math, science and engineering concepts
- Student-teacher ratio: 12-1 or less
- Instructors appointed by Johns Hopkins University
- Opportunity to earn college credit at Johns Hopkins University (see Web site for details)

Where is the course offered?

Engineering Innovation is offered at the Johns Hopkins University's Homewood campus in Baltimore, and several other sites across the country. Residential options are available at the JHU Homewood campus and at a limited number of other locations. Program length is four to five weeks, depending on the site. Please visit our website for the complete list of locations.



How do engineers make the world a better place?



Prerequisites:

- Successful completion of Algebra II and knowledge of Trigonometry.
- Successful completion of Biology, Chemistry or Physics.
- Knowledge of a spreadsheet application, such as Excel.

How do I apply?

Application forms and deadlines, site information, schedule and more details about EI can be found at <http://engineering-innovation.jhu.edu>.

Need-based scholarships are available!