

Girls' Adventures in Math, Engineering and Science 2012

Bioengineering Camp

For rising 9th—11th graders

Bioengineering campers will focus on the diverse applications of this dynamic field. Campers will engage with a wide variety of activities, including cell and tissue engineering, human physiology, genetics, biomechanics, and the kinetics behind reactions.

Environmental Engineering Camp

For rising 9th-12th graders

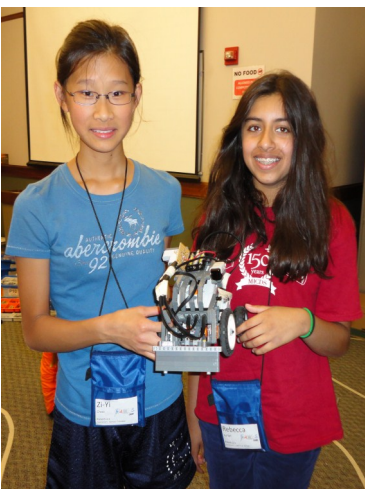
Environmental Engineering campers will explore sustainability and how the environment, culture, society, and economics are all linked. They will study different kinds of pollutants and the cycles they follow as they move through the air, water, and soil and. They will also learn what environmental engineers do to help protect human health and the planet.

Campers will design, build and test pollutant cleaning devices; enjoy field trips to environmental monitoring sites, and participate in other interactive activities.

Girls Learning Electrical Engineering (GLEE Camp)

For rising 10th-12th graders

Technology and electronics are all around us! At this camp, young women will have the opportunity to explore electronic devices through the eyes of an innovator-engineer by designing and building their own cell phone and light emitting calculator. Campers will also explore how electrical engineering is used to address socially relevant issues.



Chemical Engineering Camp

For rising 9th—11th graders

Chemical Engineering camp gives young women the opportunity to explore how alternative sources of energy are discovered, harnessed and used as economically as possible, with the least damaging impacts on our environment. Throughout the week campers will perform lab exercises while learning how Chemical Engineers impact the world.

Robotics Camp

For rising 9th-10th graders

Harness the power of computer technology and bring robotic creations to life by building, programming, and controlling autonomous robots! Campers will participate in exciting computer labs, hands-on robotic development and computer programming using the LEGO Mindstorm NXT system, and other activities that focus on group problem-solving and creativity to address issues facing society today.



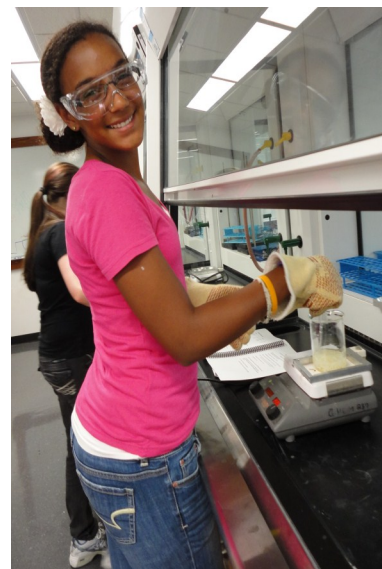
Aerospace Camp

For rising 9th-12th graders

The Aerospace summer camp gives young women the opportunity to explore aerospace engineering and aviation through many hands-on activities. Through individual and team activities, participants will explore flight mechanics, aerodynamics, astrodynamics, orbits, propulsion, and aeronautical and astronautical design.

Campers will investigate:

- How does it fly?
- What do we need to launch into space and live there?
- Is traveling in a straight line always the most efficient and shortest path?



Girls Learning About Materials (GLAM Camp)

For rising 10th—12th graders who have had a Chemistry class with a lab component.

Materials define the technologies of our world, from the stone, bronze, and iron ages to today. Materials scientists and engineers develop new materials that make modern technology possible. Participants will examine and build materials down to the atomic scale, and learn how the materials in our modern lives work, from smartphones, to solar cells, to lightweight composites. We'll also see how materials can deliver drugs, heal themselves, and store energy, all while using state-of-the-art facilities at Illinois!

APPLY NOW!

Applications will be accepted and spots filled on a rolling basis until all camps are full. For financial aid, the **early application deadline of April 13, 2012** must be met.

For information on the camps, fees, and application forms, visit:

<http://go.illinois.edu/games>