

UNI ENRICHMENT CAMP

University Laboratory High School
2014 Summer Enrichment Camp
(Camp Program Descriptions)

June 9-13, 2014
9:00 A.M. to 3:00 P.M.

ROBOTICS

9:00 A.M. – 11:45 A.M. (June 9-13, 2014)

Location: Teachers: Charlie Newman-Johnson & Neil Tewksbury

Description:

Build and program robots in this session. Work with Lego Mindstorm kits and laptops to discover the possibilities and limits of robots, and NXT robots in particular. Learn how to improve the operation of NXT robots to allow them to run more accurately, especially for competitions such as FLL. Explore mathematical concepts that underlie the science of robots and computer programming. Go on mini-fieldtrips to visit top labs and scientists in the University of Illinois campus who work with and on robots every day.

ORIGAMI IN ART & ENGINEERING*

9:00 A.M. – 11:45 A.M. and 12:15 P.M. – 3:00 P.M. (June 9-13, 2014)

Location: Teacher: Eric Shaffer

Description:

We will explore the ancient art of paper-folding and its surprising applications in modern engineering. In this hands-on camp, participants will learn how to make basic and traditional origami models. In addition, we will discuss the mathematical rules that underly origami and see how computational tools have revolutionized modern origami and enabled people to create origami sculptures of amazing complexity. Finally we will look at how origami principles are used in engineering to help design airbags, space telescopes, and more.

* Sponsored by the UIUC Computational Science and Engineering Program

EXPLORING MATHEMATICS

9:00 A.M. – 11:45 A.M. (June 9-13, 2014)

Location: Teacher: Rachel Tyson

Description:

Mathematics is so much more than being able to calculate quickly. Come explore some of the other aspects of mathematics. We will look at the many different ways that mathematicians tell stories. We will also read stories that teach about mathematics aloud and we might even work on writing some of our own stories. We will explore open ended problems which can be solved in many different ways. We will look at pictures and videos for the mathematics that might be hidden in the pictures. We will play video games that teach math, but you might have to work to figure out why they are math. In the end we will have a much better understanding of the beautifully entwined and deceptively simple mathematics.

SPORTS & FITNESS

9:00 A.M. – 11:45 A.M. (June 9-13, 2014)

Location: Teacher: Talisa Rhea

Description:

Participate in a variety of sports and physical activities. Each day will be an opportunity to be active, improve physical fitness and have fun playing sports such as basketball, soccer, kickball, and dodge ball to name a few. Learn more about the rules and strategies of each sport as well as the basic fundamental skills. Having fun and learning about sports will be the perfect start to your day!

ARCHITECTURAL DRAWING**9:00 A.M. – 11:45 A.M. (June 9-13, 2014)****Location:****Teacher: Lisa Evans****Description:**

Learn to make dynamic architectural drawings while studying the world-class architecture on the U of I campus. This workshop will involve daily sketching trips to campus sites to enjoy the visual language of architecture plus in classroom instruction on how to achieve realistic three-dimensional effects using perspective, value and proportion. We will explore pencil, ink and watercolor painting. Whether you want to be an architect or just learn to draw better, you'll improve your art skills while enjoying the great outdoors.

PAINTING & PRINTMAKING**12:15 P.M. – 3:00 P.M. (June 9-13, 2014)****Location:****Teacher: Lisa Evans****Description:**

Enjoy the great outdoors by creating art inspired by the natural world. We will explore the textures, patterns and shapes we find in nature and use these observations to create prints and paintings of our own. We will also investigate how artists work with nature as subject matter and take field trips to campus resources to explore connections between nature and art.

NARRATIVE WRITING**12:15 P.M. – 3:00 P.M. (June 9-13, 2014)****Location:****Teacher: Sushma Bridgemohan****Description:**

Students will create a digital narrative of a short biographical event in their lives. We will use scanners and computers along with pictures and Microsoft Photostory to share and create a lasting artifact of their biographical event.

LEARNING SPANISH THROUGH COOKING**12:15 P.M. – 3:00 P.M. (June 9-13, 2014)****Location:****Teacher: Nadia Garcia-Crespo****Description:**

A beginners' Spanish course using cooking as a tool for language learning. Students will learn basic Spanish grammar while making appetizers, entre and dessert from Latin America and Spain. Students will learn how to ask for directions and information, make menu selections, and engage with sellers. An open mind and palate are a must.

SCRIPTWRITING, DIRECTING, & ACTING**12:15 P.M. – 3:00 P.M. (June 9-13, 2014)****Location:****Teacher: Marcos Cerdeira****Description:**

Have a story to tell? Want to have help from your friends in making your story come alive? Why not the stage? This class will focus on helping kids write scripts collaboratively. Students will read, write and put on a play. Students will participate in warm-up exercises and games designed to inspire the creative process. The course is designed to teach students the basics of scripts (Acts, scenes, story structures etc.). Furthermore, the class is designed to make plays more accessible to students by showing them that a play is fundamentally a collaborative effort.