

Camp Instructors and Staff

Aida Bermudez, STEM Camp Director

Dr. Michelle Smith - How does probability impact our daily lives?

Dr. Ni Wang - How do robotic arms function?

Mr. Robert Pace - How Can 3D Printers be used in science?

Dr. Cindy Tran - What happened here?

Dr. Shuangteng Zhang - How can you use a suspect's computer to recover important clues for solving a crime?

Dr. Jason Fry - How can we see particles and sound?

Dr. Sally Chambers – What methods are used to monitor and maintain records of plant species?

Ms. Destiny Cornett - Can we solve a natural dilemma?



For more information, visit our website

go.eku.edu/stemcamp

or email us at

stem@eku.edu

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STEM SUMMER CAMP

June 2nd - 7th

EKU

COLLEGE OF SCIENCE, TECHNOLOGY,
ENGINEERING, & MATHEMATICS

Eastern Kentucky University

521 Lancaster Ave.

Science Building 1228

Richmond, KY 40475

859-622-1405

go.eku.edu/stemcamp

STEM

Summer Camp
June 2 – 7, 2024

Our residential STEM Summer Camp is designed to provide our campers with a preview of what it would be like to be a college student. They will participate in STEM hands-on activities, talk to different offices in the University, and be part of fun team-building activities.

- 5-day residential camp at Eastern Kentucky University's Richmond Campus. Open to all **rising high school juniors and seniors**.
- Camp sessions will be held in the Science Building and Whalin Technology Complex.
- Apply online for **free** until April 1, 2024. Applications require a short essay and teacher/counselor recommendation.
<https://application.eku.edu/register/stemcamp24>
- \$60 registration fee if accepted. Scholarships covering remaining camp costs are provided for all who are accepted.
- In addition to the STEM activities, information sessions on college majors, the application process, and financial aid/scholarships will be offered.
- Fun team building activities in the evening!

For more information about our **STEM Summer Camp**, including registration information, visit go.eku.edu/stemcamp.



TOPICS, ACTIVITIES, SESSIONS

Can we solve a natural dilemma? Have you ever wanted to help solve issues occurring in our natural habitats to better our lives and wildlife? Now you can be a part of a community solving hypothetical natural dilemmas. Come portray a community leader deciding on a deer issue and land-use issue, as we figure out the best solution for these problems!

How do we study biodiversity? Learn what it's like to be a field botanist seeking to quantify and examine patterns of biodiversity. After all, plants are important for human and environmental health! Students will learn how to identify, collect, and document botanical diversity. They will also receive a tour of our preserved collections, which represent Kentucky's flora.

How do robotic arms function? Industry robotic arms will be adopted to introduce the robotic system and operation. Work in the lab to program/operate the robotic arm. Computer-aided design will be introduced, and you will create a model and a simulation.

How can you use a suspect's computer to recover important clues for solving a crime? Computers often hold many secrets that a suspect would not want law enforcement to know during an investigation. Many criminals think they are protected from their secrets being exposed if they simply delete the data or encrypt it. Find out how FBI and local law enforcement alike can expose all the secrets criminals think they have successfully destroyed or hidden.

How Can 3D Printers be used in science? There is a myriad of ways that 3D printing technology can be used to create 3D models that are beneficial to science education specifically in biology, chemistry, and geography.

What happened here? Physical evidence such as fingerprints, fibers, broken glass, blood stains, and controlled substances can all be used to reconstruct a crime scene. Students will collect evidence from a crime scene and then analyze this evidence using microscopic, chemical, and instrumental techniques to draw conclusions about the possible presence of multiple suspects at a crime scene.

How does probability impact our daily lives? Probability impacts our daily lives. From making weather forecasts to setting insurance rates to playing our favorite games, probability helps us understand the random events in the world around us. Join us as we use probability-based strategies to see if we can help you win at casino-style games. Can you beat Vegas or are the odds truly stacked against you?

How can we see particles and sound? Particles from the cosmos are flying through our planet every moment, but we never see them. We will see cosmic particles swirl through clouds created with the help of very cold dry ice. We will observe muons and neutrinos as they pass through materials that produce light. Finally, we will be able to enjoy the sounds of music not only by hearing it but seeing the vibrations it makes through air with lasers.