

JOIN THE SOCIETY OF EXPLORATION THROUGH HANDS-ON LEARNING. WE PROVIDE OPPORTUNITIES FOR 7-12TH GRADERS TO DISCOVER MORE ABOUT ELEMENTS OF NATURAL SCIENCE AND SOCIAL BEHAVIOR.

PRESENTED BY THE UNK COLLEGE OF NATURAL AND SOCIAL SCIENCES

Science is all around us. How we act, the environments in which we live, the laws that govern us, and the physiological, psychological, and pragmatic elements that impact our lives are studied here at University of Nebraska at Kearney.

You can discover more about the Natural and Social Sciences through new UNK Summer Academic Camps.

These camps give you a glimpse of university life, the chance to learn more about topics you are interested in, and exposure to ideas and concepts that may be new to you. Learning and working alongside UNK faculty, on campus, in a fun and scholarly environment with likeminded students, will open doors to new interests, ideas, and careers in science, biotechnology, math, cybersecurity, health care, engineering, advocacy, and social justice.

UNK camps are offered in residential and commuter options and for varying grade levels.

REGISTRATION INFORMATION

This summer camp series is an officially sponsored event organized and operated by the University of Nebraska at Kearney College of Natural & Social Sciences

HOW TO SIGN UP:

Visit the official UNK Science Summer Camp website at **unk.edu/ScienceandSocietyCamps** to fill out the secure online registration form.

WHAT'S THE DIFFERENCE BETWEEN RESIDENTIAL AND COMMUTER CAMPS?

Residential camps will allow students to stay on campus in one of our safe and secure residence halls. Extra social activities and evening events will be planned to limit downtime for campers.

Commuter camps are designed to allow students to go home at the end of each day. This is ideal for campers who live within driving distance of the UNK campus.

SPECIAL INFO FOR RESIDENTIAL CAMPS:

There will be an official UNK representative with campers at all times. Our camp counselors are trained to handle the needs of the students. If a camper requires special accommodations for any reason, please let us know in advance.

CYBERCAMP

JUNE 6-10

FORMAT: RESIDENTIAL

GRADES: FOR YOUTH ENTERING GRADES 7, 8, 9, 10

CAMPERS: MINIMUM OF 50

CAMP DIRECTOR: DR. MATT MILLER (DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY)

Explore a new field – cyber security, by learning these technology basics and how they work:

- Networking concepts and computer programming
- Problem-solving through introduction to computer engineering
- Critical-thinking skills to address and solve problems
- Computer architecture and embedded systems hardware

During down time, you will meet new friends, enjoy movies and game nights, and hang out in the UNK residence halls. The finale: Share with your family what you have learned at the camp showcase.

Tuition: \$250 for residential campers and \$200 for commuters

STRATEGIES FOR SOCIAL CHANGE

JUNE 7-10

FORMAT: RESIDENTIAL

GRADES: FOR YOUTH ENTERING GRADES 10, 11, 12

CAMPERS: MINIMUM OF 15

CAMP DIRECTORS: DR. DIANE DUFFIN (POLITICAL SCIENCE DEPARTMENT) AND DR. SUZANNE MAUGHAN

(SOCIOLOGY DEPARTMENT)

If your goal is to make a difference in your community, this camp gives practical, how-to instructions for leading social change. Learn the techniques professional activists use to define social problems, identify solutions, mobilize followers, and communicate with policymakers, media, and the public.

By the end of camp, you'll have an action plan to take home and implement in your community.

Tuition: \$350 or \$325 if registered before May 15

AGRICULTURAL BIOTECHNOLOGY: ROOTING FOR THE FUTURE

JUNE 11-16

FORMAT: RESIDENTIAL OR COMMUTER

GRADES: FOR YOUTH ENTERING GRADES 7, 8

CAMPERS: MINIMUM OF 24

CAMP DIRECTORS: DR. PAUL TWIGG AND DR. JULIE SHAFFER (BIOLOGY DEPARTMENT)

This camp uses fun hands-on activities and outings to help you understand the importance of plants and soils in agriculture. You will examine soil composition and microbes, plant reactions to the environment, genetically modified plants, and other topics.

Tuition: \$300 for residential campers and \$250 for commuters

THE MATH OF CHAOS AND COMPETITION

JUNE 11-14

FORMAT: RESIDENTIAL

GRADES: FOR YOUTH ENTERING GRADES 10, 11, 12

CAMPERS: MINIMUM OF 15

CAMP DIRECTORS: DR. DEREK BOECKNER

AND DR. GERARD KOFFI

(DEPARTMENT OF MATHEMATICS AND STATISTICS)

Google "fractals" and you see beautiful images and vibrant colors, but these art constructs are actually also mathematical constructs. They are objects that live between dimensions; they are neither 1D, 2D, or 3D objects but have fractional dimension (hence "fractal").

During this camp, you will look at some of the basic fractals like the Cantor set and the Sierpinski triangle and see how something completely random and chaotic like rolling a die can eventually become very ordered if looked at in the right context.

Game theory is a branch of mathematics focusing on the application of mathematical reasoning to competitive behavior. You will learn how to use game theory to solve questions of social competition and analyze social networks of different populations while learning how to be skillful mathematicians and good strategists.

Day 1 of this camp will cover fractals, Day 2 will cover game theory, and you will wrap things up the last half day.

Tuition: \$250 or \$235 if registered before May 15



CRIME SCENE INVESTIGATION CAMP

JUNE 12-14

FORMAT: COMMUTER

GRADES: FOR YOUTH ENTERING GRADES 9, 10

CAMPERS: MINIMUM OF 15

CAMP DIRECTOR: SGT. KYLE HARSHBARGER

(KEARNEY POLICE DEPARMENT AND DEPARTMENT OF

CRIMINAL JUSTICE)

Today, everyone knows what "CSI" is. In this camp, you will learn the basic principles of criminal investigation, and be introduced to forensic evidence collection and analysis techniques — like fingerprints, impression evidence, microscopic evidence, and alternative light sources.

You will even investigate a mock crime scene on the final day of the camp. This camp is a partnership between the University of Nebraska at Kearney and the Kearney Police Department.

Tuition: \$85 or \$80 if registered before May 15

MOVERS, SHAKERS AND DIFFERENCE MAKERS



JUNE 14-16

FORMAT: COMMUTER

GRADES: FOR YOUTH ENTERING GRADES 7, 8, 9

CAMPERS: MINIMUM OF 20

CAMP DIRECTORS: DR. BEN MALCYZK (SOCIAL WORK DEPARTMENT), DR. SUZANNE MAUGHAN (SOCIOLOGY

DEPARTMENT), DR. JULIE CAMPBELL (CRIMINAL

JUSTICE DEPARTMENT)

Do YOU want to make a difference in the world? Do you want to be involved in making our society more just? This summer camp is about more than changing your life, it's about helping you make the world a better place. You can be a social justice warrior!

This camp will provide students with tools and ideas on how they can make a difference in the world. YOUth have the power to make the world great.

Tuition: \$200 or \$190 if registered before May 15

PHYSICS, ASTRONOMY AND ENGINEERING CAMP

JUNE 14-17

FORMAT: RESIDENTIAL

GRADES: FOR YOUTH ENTERING GRADES 7, 8, 9, 10

CAMPERS: MINIMUM OF 20

CAMP DIRECTORS: DR. TIM REECE

AND DR. DIGANTA DUTTA

(DEPARTMENT OF PHYSICS AND ASTRONOMY)

In this camp you will gain hands-on experience and problem-solving skills in Physics, Astronomy and Engineering. Learn about the Aug. 21, 2017 total solar eclipse, analyze electric circuits, study the physics of energy and motion, test material properties using a universal testing machine, and create 3D virtual structures with Computer Aid Design (CAD) software.

Fun social activities include an evening telescope-viewing sessions.

Tuition: \$285 or \$270 if registered before May 15

HEALTH SCIENCES DAY CAMP

JUNE 16

FORMAT: COMMUTER

GRADES: FOR YOUTH ENTERING GRADES 11, 12

CAMPERS: MINIMUM OF 15

CAMP DIRECTORS: DIRECTOR PEGGY ABELS AND SARAH JONES (HEALTH SCIENCES PROGRAM)

This is an exciting day of learning about health sciences and careers in healthcare. You will learn about circulation and dissect a cow heart, spend time in a lab setting, tour the Health Science Education complex, and participate in simulations and case studies.

This camp will also be an opportunity to hear from healthcare professionals in a variety of fields and learn about Health Sciences at UNK. If you are interested in a career in healthcare, this is a great opportunity.

Tuition: \$85 or \$80 if registered before May 15



MEET THE CAMP DIRECTORS

- Dr. Tedd Rupnow | Mathematics and Statistics, Asst. Professor
- Dr. Derek Boeckner | Mathematics and Statistics, Asst. Professor
- Dr. Gerard Koffi | Mathematics and Statistics, Asst. Professor
- Dr. Kaye Sorensen | Mathematics and Statistics, Senior Lecturer
- Paul Bonk | Mathematics and Statistics, Lecturer
- Peg Abels | Director of Health Sciences
- Liz Stout | Asst. Director of Health Sciences
- Sarah Jones | Advisor of Health Sciences Programs
- Dr. Paul Twigg | Biology, Professor
- Dr. Julie Shaffer | Biology, Professor
- Dr. Matt Miller | Computer Science & I.T., Asst. Professor
- Dr. Ben Malcyzk | Social Work, Asst. Professor
- Dr. Suzanne Maughan | Sociology Chair, Assoc. Professor
- Dr. Julie Campbell | Criminal Justice Chair, Assoc. Professor
- Sgt. Kyle Harshbarger | Kearney Police Dept.
- Dr. Tim Reece | Physics and Astronomy Assoc. Professor
- Dr. Diganta Dutta | Physics and Astronomy, Asst. Professor
- Dr. Diane Duffin | Political Science Chair, Assoc. Professor

CONTACT US

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