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UAMS to Host Health Care Technology, Data Science Summer Camp for 10th Graders in Northwest Arkansas

FAYETTEVILLE — The University of Arkansas for Medical Sciences (UAMS) is hosting a two-week summer day camp for rising 10th grade students in Northwest Arkansas who are interested in learning about STEM and data science as it relates to the health care field.

The Arkansas Technology and Data Science in Health & Medicine (AR Tech DaSH) camp will be held June 3-14 on the UAMS Northwest Regional Campus in Fayetteville. Spots are limited to 25 students, and the deadline to register is April 12. Registration is available online at https://medicine.uams.edu/neurobiology/outreach/ar-tech-dash/.

The free, 10-day summer camp incorporates imaging technologies and a data science curriculum focused on health and medicine. Students who complete the AR Tech DaSH camp will be designated as STEM Ambassadors and will be expected to participate in limited community outreach activities during off-school hours during the next academic year. Program staff will also provide a short series of college preparation sessions for the STEM Ambassadors.

The first week of camp is focused on providing students with hands-on activities, including: medical-related skills, anatomical basis of disease, clinician-patient simulations and research on various diseases. Students will learn how to use stethoscopes, blood pressure devices and hand-held ultrasound devices, as well as learning about suturing, taking a patient history, and learning about electroencephalogram (EEG), electromyography (EMG) and electrocardiogram (EKG) procedures. Students will dissect pig hearts, inspect plastinated human cadaveric specimens and embalmed human brains, and learn about computerized tomography (CT) imaging. UAMS medical students will serve as mentors during the first week.

The second week of camp focuses on providing students with an introduction to data science and data analytics using large data sets. Students will learn how infographics are used to inform the public about relevant disease information, explore population bases’
disease statistics, use software to examine summary statistics for large data sets, use the graphical user interface software program Orange for data exploration, learn about summary stats and visualization of data sets, and use Orange to learn about machine learning. University of Arkansas at Fayetteville undergraduate students will serve as mentors during the second week.

“The goal is to get students excited about STEM and data science careers so that the future workforce in these fields better reflects the diverse population in the U.S.,” said camp organizer Kevin D. Phelan, Ph.D., a professor in the Department of Neurobiology and Developmental Sciences in the UAMS College of Medicine. “While there are no specific course requirements for attendance at the camp, we are looking for highly motivated students.”

The UAMS Northwest Regional Campus includes 356 medical, pharmacy, nursing and health professions students, 76 medical and pharmacy residents, and two sports medicine fellows. The campus has 13 clinics including internal and family medicine, a student-led clinic, orthopaedics and sports medicine, behavioral health/psychiatry, geriatrics, genetics counseling, transplant follow-up, and physical, occupational and speech therapy. Faculty conduct research to reduce health disparities.

UAMS is the state’s only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; a hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a statewide network of regional campuses; and eight institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute, Institute for Digital Health & Innovation and the Institute for Community Health Innovation. UAMS includes UAMS Health, a statewide health system that encompasses all of UAMS’ clinical enterprise. UAMS is the only adult Level 1 trauma center in the state. UAMS has 3,275 students, 890 medical residents and fellows, and five dental residents. It is the state’s largest public employer with more than 12,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children’s, the VA Medical Center and Baptist Health. Visit www.uams.edu or www.uamshealth.com. Find us on Facebook, X (formerly Twitter), YouTube or Instagram.