Carl R. Ice College of Engineering remains top choice for engineers in Kansas in 2021

The Carl R. Ice College of Engineering at Kansas State University remains the top choice in Kansas for future engineers, boasting the largest number of graduates and currently enrolled students of any engineering school in the state in 2021.

The college finished 2021 with 674 graduates, well above the institution's goal set by the University Engineering Initiative Act, or UEIA, enacted by the Kansas Legislature in 2011 to increase the number of engineering graduates from the state's three engineering schools to 1,365 students per year by 2021. Kansas lawmakers chose to renew the UEIA for an additional 10 years, extending the program and its support of engineering schools with an additional focus on retaining engineering talent to work and live in Kansas after graduation.

In addition to attending the largest engineering school in Kansas, K-State engineers continue to be in high demand, both in Kansas and across the nation, with a 97% career placement rate and the state's highest internship rate. K-State engineering graduates also have the highest average starting salary among engineering schools in the state.

"We continue to hear from employers across the state that our graduates leave K-State prepared for success as engineers in the modern workforce," said Matt O'Keefe, dean of engineering and LeRoy C. and Aileen H. Paslay chair in engineering at K-State. "We are grateful to have so many strong relationships with industry partners across Kansas that see the value of bringing K-State engineers into their organizations, whether as student interns or as full-time employees. With the UEIA renewal, we are focused on increasing and strengthening those relationships."

The UEIA renewal offers additional opportunities for the College of Engineering to support students, both academically while they're in school and with jobs and internships after their time at K-State comes to an end.

K-State researchers receive international award in biomedicine

Three researchers from Kansas State University have received the BIAL Award in Biomedicine for a publication focused on mRNA technology, which is now used in the two vaccines approved by the Food and Drug Administration to prevent COVID-19.

The award recognizes the work of a team including Stephen Higgs, associate vice president for research and director of the Biosecurity Research Institute; and Yan-Jang "Scott" Huang, research assistant professor of arbovirology and Dana Vanlandingham, professor of arbovirology, both in the College of Veterinary Medicine at K-State. The team was comprised of 36 co-authors, including researchers from Duke University, Harvard Medical School, National Institutes of Health and several private companies.

"It is a tremendous honor for the three of us at K-State to share this award that exemplifies the power and importance of collaborative research by so many researchers at so many institutes," Higgs said.

The winning work was chosen from 47 papers nominated among the most important research reports in the last 10 years in biomedicine. Applications included basic research studies, clinical trials, work in
neurodegenerative disorders, cancer and infectious diseases. The award is worth $339,522 and aims to distinguish a work in biomedicine of exceptional quality and scientific relevance.

The award recognizes an important breakthrough of a technology for vaccine creation, published in Nature in 2017 in the research report "Zika virus protection by a single low-dose nucleoside-modified mRNA vaccination." The paper describes the complex work to engineer an mRNA vaccine to treat a disease and demonstrates its efficacy.

While traditional vaccines often use a modified virus to provoke a reaction in the immune system, the technology investigated by the award-winning team uses a synthetic mRNA to allow the body to prepare itself against the disease. To do so, it uses an mRNA that makes the body's own cells synthesize a viral protein that stimulates the body's immune response.

The pandemic caused by SARS-CoV-2 has accelerated research in this area, but this work paves the way for a new generation of vaccines with the potential to revolutionize the treatment of many diseases.

K-State Salina's annual Scholarship Patrol event awards over $7.5 million to incoming students

The Kansas State University Salina Aerospace and Technology Campus Scholarship Patrol has awarded over $7.5 million in scholarship money to first-year and transfer students.

The campus's admissions department staff knocked on the doors of incoming first-year students for the fall 2022 semester, making more than 30 stops around the state of Kansas, spanning more than 16 hours and 450 miles traveled as part of the event.

Scholarship Patrol is organized by the admissions department at K-State Salina. The patrol travels to future students' homes and surprises them with scholarships. Kris Grinter, director of admissions at K-State Salina, said the time spent preparing for the event and the long travel are worth it to see the students' excitement.

"This is my favorite time of year," Grinter said. "We work with the parents or guardians of students to let them know we are coming. Often, the students' grandparents or other extended family are there to see the moment and celebrate when they receive a scholarship. We've even seen neighbors come over to congratulate the student."

While the admissions department congratulates the students within driving distance, they still have a special surprise for the students who live farther away. As part of Scholarship Patrol, K-State Salina also sends out decorated K-State-themed boxes to out-of-state students receiving a scholarship. In 2022, the campus has sent out 283 packages to students from 29 different states to help with funding their education.

K-State leadership communication team assists in $17M planning project for Reno County

Students and faculty from Kansas State University's leadership communication doctoral program assisted Reno County, Kansas, with the American Rescue Plan Act: Reno County Resident Engagement. More than $17 million was available to the community from the COVID-relief bill, and the residents of Reno County were guided through an inclusive, high-quality facilitated process that engaged 553 residents.

The leadership communication team designed, implemented, and trained facilitators for the engagement process. They gathered data from the meetings, synthesized the findings into a report, and presented the results to the task force and community leaders.

The data from the plan is available to the public, along with a video presentation at rallyreno.org.

"Community-engaged scholarship is core to our programs' teaching, learning, and research approach," said Kerry Priest, Ph.D., associate professor and director of the leadership communication program. "Students in our interdisciplinary program have the opportunity to study, collaborate, and impact the complex, real-world challenges facing communities."

The leadership communication faculty and students partner with campus entities, government, non-profit organizations and businesses that are working to advance civic capacity, leading change and enhancing leadership learning and development.

K-State research helping protect zoo animals from SARS-CoV-2 spread

Testing done by Kansas State University's Center of Excellence for Emerging and Zoonotic Animal Diseases is helping protect more than 100 mammalian species of animals in zoos around the
Scholarship Patrol is made possible by donors who support K-State Salina and Kansas State University as a whole.

**Student construction chapter spends winter break time volunteering on service trip**

The Associated General Contractors of Kansas Student Chapter at Kansas State University in the GE Johnson Department of Architectural Engineering and Construction Science took 14 students and two faculty advisors on its annual winter break service project.

This year’s trip was to Hammond, Louisiana, for five days in January, serving local residents left with damage in the wake of Hurricane Ida.

Chapter members from K-State have organized and participated in these service work trips over the winter break for more than a decade, with the majority of previous trips coordinated through Habitat for Humanity’s Collegiate Challenge program.

"This trip was very rewarding for our group," said Shannon Casebeer, assistant professor, Jim and Carolyn Grier construction science chair and faculty adviser for the Associated General Contractors of Kansas Student Chapter. "The opportunity to serve others while gaining hands-on experience on a variety of projects is great for everyone involved."

The group had the opportunity to work with vinyl siding, rough carpentry framing, flooring, ADA ramps and electrical rough-ins. Students from freshmen to seniors participated this year, all gaining industry-related experience while helping a community still struggling to recover from Ida.

**DID YOU KNOW?**

K-State’s College of Health and Human Sciences’ interior design program was ranked #4 in the nation by collegerank.net.

Zoo animals are receiving the experimental vaccine developed by leading animal health company Zoetis. The U.S. Department of Agriculture authorized use of the experimental vaccine on a case-by-case basis to help protect mammals living in zoos. Zoetis has donated the vaccine to the zoos, which have been using it since summer 2021.

A team at K-State’s Center for Excellence For Emerging and Zoonotic Animal Diseases, or CEEZAD, led by Jürgen A. Richt, tested the vaccine for safety and efficacy against SARS-CoV-2 infection. Richt is director of CEEZAD and the Regents distinguished professor in the university’s College of Veterinary Medicine.

"This developmental work on a COVID-19 vaccine for animals is an important step to protect susceptible animal species against SARS-CoV-2 because research has shown that SARS-CoV-2 can be a threat to segments of the pet, wildlife and zoo animal populations," Richt said. "We know that domestic and large cats and many zoo animals are highly susceptible to SARS-CoV-2, probably acquiring the virus from their handlers."

Zoetis initially began its work on a COVID vaccine for animals in February 2020 when the first dog was confirmed to be infected with SARS-CoV-2 in Hong Kong. Global animal health authorities have thus far determined there is no need for a COVID vaccine for household pets.

Richt said doing these studies was both a great opportunity and a serious responsibility.

"These types of vaccines can be of significant assistance in combatting the disease and the spread of the SARS-CoV-2 among susceptible animal populations, including endangered animal species," Richt said. "Members of my laboratory were delighted to be given the opportunity to play such an important role in the evaluation of this vaccine and contribute to saving endangered animals worldwide."

Vaccine testing at K-State took place at the university's Biosecurity Research Institute, a biocontainment research and education facility.