Kansas State University receives seven Top 10 rankings in national student survey

Kansas State University's student-centered approach to higher education shines in The Princeton Review's 2020 edition of "Best 385 Colleges" publication.

The national student survey showcases 13% of the nation's best four-year colleges by reviewing more than 140,000 student's responses and ranking colleges in 62 categories. The Princeton Review ranked the university No. 2 in the nation for best quality of life, great relationship with the surrounding town and best health services; No. 3 for happiest students and students love these colleges; and No. 7 for best run colleges and best athletic facilities. According to the survey comments, Kansas State University students said the atmosphere is "very personable and really focused on the student" and instructors "go above and beyond" for students.

"K-State has an average 18-to-one student-to-teacher ratio and is known for its student-centered approach to higher education," said Thomas Lane, vice president for student life and dean of students. "Countless rankings like The Princeton Review's show that the university is providing an enriching and career-focused college experience for the best value in the state and one of the best among all the nation's higher education institutions."

For the fifth year in a row, Kansas State University was also named the best educational value in Kansas by SmartAsset, a financial technology company. The finding is based on tuition, living costs, average scholarships and grants, starting salary after graduation and retention rates.

"Ninety-six percent of K-State graduates are employed or are pursuing further education within six months of graduation," Lane said. "The university has an 84% retention rate and our graduates have the highest average starting salary in the state - a direct result of an exemplary K-State education and caring faculty and staff."

As part of The Princeton Review survey, students reported that professors across all disciplines truly care about teaching, are engaging and provide stimulating discussion and work by encouraging class participation. In addition, student comments mentioned the helpful, polite and friendly nature of the student body as well as the diverse campus life activities. The university also is ranked No. 12 for most active student government, No. 13 for best career services and No. 16 for best college residence halls.

Industrial hemp test plots flourishing across the state

The distinctive smell of hemp now wafts through certain test plots at multiple K-State Research and Extension sites across Kansas.

The first test crops of industrial hemp have been growing for about two months at the John C. Pair Horticulture Center in Haysville near Wichita, the Olathe Horticulture Research and Extension Center in the Kansas City metro area, and the Northwest Research-Extension Center in Colby.

K-State researchers are seeking answers to many questions, including whether to grow hemp for grain, fiber or CBD (cannabidiol) oil. One can hardly look at a drugstore shelf without seeing CBD as an ingredient in a wide range of products based on its reported health value.

"Right now, the revenue generation is definitely in CBD production, so that's getting a lot of excitement," said Jason Griffin, director of the John C. Pair Horticulture Center. But growing hemp for grain, fiber or both, through dual-purpose production, offers what Griffin calls a mind-boggling variety of options.

While some people might think of hemp only in terms of rope, Griffin said hemp uses have expanded far beyond
mere ropes. From paper products to flooring materials and even hempcrete - concrete reinforced with hemp fiber to strengthen it - "the uses for industrial hemp are almost limited only by the imagination," he said.

With all those uses, it's easy for people to get excited about the prospects of growing hemp. But Griffin recommends caution. "It's going to be an alternative crop to work in with your corn or with your wheat, where you can seed - maybe apply some irrigation, maybe not - but that's part of the reason we're doing research to see if dryland industrial hemp will produce as well as irrigated."

K-State Research and Extension is testing several different production techniques, fertilizer treatments, and looking for pests and diseases. In many cases, the test crops are modeled on what Colorado growers have done, including using trellis supports. The Pair Center is testing 17 different varieties, while the Olathe center planted one variety to observe how multiple environments affect growth.

Different kinds of cannabis plants have different uses depending on how much of the chemical compound THC is present. Marijuana has significant levels of THC, which is what produces a high. Industrial hemp, on the other hand, is low in THC which allows for its myriad of uses.

It's all closely controlled: When test programs launched this year, researchers and independent growers in Kansas had to be licensed by the Kansas Department of Agriculture, which included undergoing a criminal background check and making their fingerprints accessible to the FBI.

The 2018 Farm Bill made all of this possible. Industrial hemp now can be grown in pilot programs under the U.S. Department of Agriculture and state departments of agriculture.

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Research team awarded $2.8M DOE grant to enhance solar energy capabilities, resiliency of power grid

Kansas State University announced that it received a three-year, $2.8 million research award from the U.S. Department of Energy Solar Energy Technologies Office to advance solar energy's role in strengthening the resilience of the U.S. electricity grid. This project will enhance utility operators' awareness of and resilience to cyberattacks.

The existing U.S. power grid was designed to deliver power to customers from a central generator. As more solar and other distributed energy resources are added to the grid, utility operators must develop new tools that will allow them to integrate diverse energy resources, detect and mitigate disturbances, and provide strong protection against physical and cyber risks. However, the need for data sharing between the photovoltaic system, operational tools and the electric grid has led to increased vulnerability to cyberattack.

This project, led by Bala Natarajan, the Clair N. Palmer and Sara M. Palmer professor in the Mike Wiegers Department of Electrical and Computer Engineering, will develop cyber-smart photovoltaic inverter technologies, system-level coordinated cyberattack detection methods, robust state estimation strategies, and unique modeling and analysis methods to enhance utility operators' awareness of and resilience to cyberattacks.

A record-breaking year: Donors contribute $212 million in fiscal year 2019 for K-State

Donations to Kansas State University reached an all-time high in the fiscal year ending June 30, 2019, with more than $212 million in private gifts through the Kansas State University Foundation.

"This was the most successful fundraising year in K-State history," said Greg Willems, president and CEO of the KSU Foundation. "These exceptional fundraising results are fueled by the extraordinary commitment of our donors, whose generosity grows with each passing year."

Of the $212 million raised in fiscal year 2019, donors gave 53% of those dollars through endowed gifts, pledges and deferred gifts, which ensure the long-term prosperity of the university. Giving to the university's endowment was the highest in five years, and the value of K-State's long-term investment pool grew to $613.4 million. Endowment growth is key to K-State's goal of becoming a top 50 public research university by the year 2025, as it directly correlates to the university's capacity to serve future generations of K-Staters.

"It is an honor to thank all of our donors - alumni, friends, corporate partners, faculty, staff and students - who expressed their support of K-State so generously this year," K-State President Richard Myers said. "This new milestone in fundraising will
control capabilities.

"Taken together, these technologies combine to enable measurements from solar inverters and grid sensors to be gathered and processed into actionable and visualized status updates for grid operators," Natarajan said. "These tools and algorithms will enable utilities to better manage and use data from distributed energy devices and enhance operations."

The project is one of 10 selected nationwide in the Advanced Systems Integration for Solar Technologies program to develop grid management tools and models that show how solar situational awareness will enhance power system resilience, especially at critical infrastructure sites.

K-State named Top 10 school for bachelor's degree in media communication

The A.Q. Miller School of Journalism and Mass Communications is among the best programs in America for receiving a degree in media communications, according to the Bachelor's Degree Center, a website dedicated to helping prospective students find programs best suited to their career interests in terms of their financial, educational and personal interests.

The center's site ranked the 25 best bachelor's programs for media communications degree programs in 2019, citing the basic selection criteria as programs that offer a focus "beyond the simpler days of radio, television and publishing." In that regard, the A.Q. Miller School ranks ninth, and was the only media program among Big 12 schools to make the list. The center first chose its schools based on their status as nationally accredited programs, then data was collected on such factors as alumni salary information, graduation rates, job placement, student reviews and tuition costs.

The main benchmark cited by the center, however, was the A.Q. Miller School's recent curriculum overhaul, which was developed over three years beginning in 2015 and inaugurated last fall. The curriculum, which features concentrated study in Journalism or Strategic Communications - a sequence that encompasses advertising and public relations - was designed to give freshmen basic exposure to media writing and production skills from their first day of classes at K-State, allowing them to more quickly develop skills sets and learn professional standards. The center's selection team was impressed with the fact that the A.Q. Miller School "radically renovated its curriculum with an emphasis on cross-media communication... emphasizing experiential learning for production skills." Students are allowed to freely pick and choose skills building courses as they advance in the program, while honing their skills at award-winning campus media operations, including the Collegian, Manhappenin' and Update magazines, KSDB-FM 91.9 and KKSU-TV Channel 21. Each of those media outlets has companion web and social media platforms, and a multimedia news desk gathers information for distribution across those channels.

"We're thrilled to be on a list of such prominent names in media education," said Steve Smethers, the interim director of the A.Q. Miller School. "Our faculty worked have a great impact on students, faculty and facilities at K-State. There's no question that this level of support from the K-State family will help advance the university this year and for many years to come."

Other key philanthropic achievement for the 2019 fiscal year included:

- Donors established 208 new scholarships, up from 170 the previous year. A total of $47.7 million was raised for scholarships and student success overall, up from $37 million from the previous year.
- A record 39 gifts and commitments of $1 million or more were made, totaling more than $129 million.
- More than $156 million was raised for academic purposes.
- Gift commitment through estate planning, including wills, trusts and annuities reached $72 million.
- Fundraising for the Innovation and Inspiration Campaign exceeded the fundraising target of $1.4 billion. The campaign, which surpassed its original $1 billion goal in April 2017, will continue to raise funds for K-State priorities until its scheduled end on June 30, 2020.

New $2.7 million NIH grant extends researcher's work on tick-borne disease

The clock could be ticking for ticks. Roman Ganta, Kansas State University professor and director of the Center of Excellence for Vector-Borne Diseases in the College of Veterinary Medicine, recently secured a new grant of $2.7 million from the National Institutes of Health to continue his lifelong work on tick-borne disease.

Previously, Ganta's research team has received grants from the NIH's Research Project Grant Program of $1.8 million, $1.825 million and $1.687 million in 2014, 2007 and 2002 respectively. The target of Ganta's research is human monocytic ehrlichiosis, which is caused by the tick-transmitted pathogen Ehrlichia chaffeensis.

" Tick-borne diseases remain a growing public health concern for more than four decades in the U.S. and many other parts of the world," said Ganta. "My team's prior studies have demonstrated that this pathogen, which also infects dogs, changes many of its expressed proteins as per its growth in a vertebrate host and in the tick host. We have also been active in studying the immune response required to protect a host from the disease. Substantial progress made during the prior five-year funded cycle is the key to landing another five years of support from the NIH."

Funded by the NIH since 2002, Ganta said his team's research has aided in the development of novel genetic methods useful in understanding pathogenesis and vaccine development. With an additional five years of support through the new grant, his tick-borne disease research program will mark 22 years of continuous NIH funding.

Ganta plans to continue investigating how Ehrlichia chaffeensis regulates its gene expression in response to host cell environmental signals and how it develops strategies to evade host response for its continued
hard to develop a curriculum that enhances basic skills and professional standards, while stressing modern trends in media technology, management and changing consumer tastes.

As examples, Smethers cited the A.Q. Miller School's status as one of five programs nationally to feature drone photography and video technology, the addition of courses in social media as a tool of both journalism and strategic communication message dissemination and new courses based on media analytics as tools of audience analysis and strategic campaign development.

**DID YOU KNOW?**
The Carl Ice College of Engineering's Fountain Wars Design Team brought home first-place honors in a recent international competition. For the ninth time in the past 10 years, a team from K-State has finished in the top three in the Fountain Wars Competition, a segment of the G.B. Gunlogson Student Environmental Design Competition.

"We have goals set for the next five years to investigate how the pathogen changes its protein expression by investigating gene regulation at the molecular level," Ganta said. "This mechanism defines the functional significance of proteins that have been identified as essential for E. chaffeensis growth in animals and ticks. We will perform numerous protein function disruption experiments aimed at understanding the critical determinants of the bacterium that causes the disease in people and animals from the bite of an infected lone star tick."

Moving forward, Ganta anticipates making substantial progress toward understanding how this and other tick-borne diseases are successful in causing persistent infections in animals and people. He said that his team is also focused on the development of effective vaccines to prevent the spread of human monocytic ehrlichiosis and other important tick-borne diseases impacting the health of people, companion animals and agricultural animals.