

WSU News

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Wichita State establishes new School of Computing

By WSU Strategic Communications

The Kansas Board of Regents has approved the creation of the newest department at Wichita State University's College of Engineering – the School of Computing. Dean Dennis Livesay called the establishment of the new school a significant marker of the university's commitment to producing digital-skilled workforce needed by industry.

"Computing and data are ubiquitous in modern society and together are transforming every discipline," Livesay said. "In order to better prepare our students and lead in this transformation, we are integrating all of our computing academic programs and faculty. This high visibility change and the associated new degree programs prepare us to be a major player in computing and data science going forward."

In addition to their academic work, the school will support the university's planned National Institute of Data Transformation (NIDT) that will be housed in a new 30,000-square-foot facility on the Innovation Campus. The NIDT will house research and industry partnerships, bringing together faculty and students from many different WSU departments across the university for the sole purpose of developing a broad range of economic sectors, including the high-tech, health, manufacturing, defense and logistics.

The Innovation Campus already hosts NetApp, a tech company that specializes in cloud data services and data management, and the Deloitte Smart Factory @ Wichita is currently under construction.

"The goal is to align the curriculum across the university to technology that allows students more opportunities to work in fields using data such as aviation, manufacturing, health care, digital advertising, image recognition and gaming, to name a few," said Rick Muma, interim president of Wichita State.

The School of Computing will offer undergraduate degree programs in computer science and applied computing, master's degree programs in computer science, computing, and data science and continue offering a Ph.D.

"We already have excellent programs in applied computing, cybersecurity and computer science, and they have the potential to become stronger and more relevant to industry relevant after we bring them

under the same umbrella,” explained Dr. Gary Brooking, chair of the Department of Engineering Technology, where applied computing is housed currently.

The computing master’s program is designed for mid-career professions who don’t have an undergraduate degree in computer science but need advanced computing skills.

“It’s the cornerstone of our efforts to expand educational opportunities in computing. The program is the result of an official renaming and broadening of scope for our old computer networking master’s degree. The reimagined program features stackable certificates in subfields of cybersecurity, software engineering, data science, and computer networking,” said Dr. Gergely Záruba, the current chair of the Department of Electrical Engineering and Computer Science and the inaugural interim director of the School of Computing.

Similarly, the new MS in Data Science is another key element in the college’s efforts to support digital transformation.

“Most of our recent hires have been in the areas of machine learning and data science that, along with existing faculty, have created a solid core of expertise,” Livesay said.

“Realizing that data science is disrupting all disciplines, one of the most unique aspects of this program is that it is actually just one of three new programs being created at Wichita State,” said Dr. Dukka KC, associate professor and director of data science efforts.

The others are a master’s degree in mathematical foundations of data analysis, and a master’s degree in business analytics, offered by the Fairmount College of Arts and Sciences and the Barton College of Business, respectively.

“This unique coordination between the College of Liberal Arts and Sciences, the Barton School of Business, and the College of Engineering ensures that Wichita State is prepared to support all aspects of data science and analytics,” he said.

These advances are in addition to a series of other recent high-profile announcements related to WSU’s growing presence in computing, including designation last year by the U.S. Department of Homeland Security as a National Center of Academic Excellence in Cyber Defense Education, and a founding member of the National Science Foundation’s AI Institute for the Foundations of Machine Learning, announced in August.