

Keeping an eye on the environment at SIUE

Segue • SIUE



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The need for intuitive, and highly trained environmental scientists and specialists is heightened due to interest in the hazards facing the environment, as well as the increasing demands placed on the environment by population growth.

To meet that need, the Southern Illinois University Edwardsville College of Arts and Sciences (CAS) began offering a new bachelor in environmental sciences degree and a cooperative PhD program with SIU Carbondale in fall 2016 through the College's environmental sciences program and the Graduate School.

After recognizing the program's exponential growth and degree offerings in undergraduate, master and doctoral studies, the program was officially recognized as its own distinct department within CAS by the Illinois Board of Higher of

Higher Education (IBHE) during summer 2017.

On this week's episode of Segue, SIUE's premier radio show that discusses the ideas and issues on campus and beyond, Greg Budzban, PhD, CAS dean, discusses the Department of Environmental Sciences' growth with its outgoing chair, Zhi-Qing Lin, PhD, and the incoming chair, Nicholas Guehlstorf, PhD. The episode will air at 9 a.m. on Sunday, Nov. 19 on WSIE 88.7 FM The Sound.

A professor in the Departments of Environmental Sciences and Biological Sciences, Lin was awarded his doctorate from McGill University in 1996. Prior to coming to SIUE in 2002, he was a postdoctoral research fellow at the University of California at Berkeley.

Shortly after Guehlstorf was awarded his doctorate in political science from Purdue University in 2002, he arrived on the SIUE campus and has taught environmental sciences courses. He is also a professor in the Department of Political Science.

The transition to offering degree majors, in addition to an environmental science minor and graduate degree programs, is something that faculty members had always wanted.

"It was always a vision of the previous program director, Kevin Johnson, that the environmental sciences program would become a full-fledged department and offer degree majors," Guehlstorf says. "The master's program has existed for nearly 35 years, and we've had a minor program for about a decade or so."

Not only is SIUE a resource for a leading-edge education in high-demand fields like environmental sciences, but the University community is a vibrant resource for insight into some of the problems that affect the population, both locally and worldwide.

"Looking at how human behavior affects our environment has been a focus of our culture," Budzban says. "The department's initiatives are front-and-center in addressing important problems in our society. It shows that we are hoping to move forward and provide solutions."

"Often times, our department receives calls from local residents who are concerned about certain pesticides and chemicals," Lin says. "The first thing we have to find out is the number of chemicals and the chemical forms as they currently exist in the environment, and show the potential impacts on human health."

“Most new chemical compounds or products should be biodegradable, according to governmental regulation, but for compounds like DDT, those pollutants stay around in the environment for a long time.”

With the implementation of the bachelor’s program and cooperative PhD program with SIUC, the Department of Environmental Sciences’ approval by the IBHE, and with around 35 declared environmental sciences and 20 minor declarations, the interdisciplinary professors are excited to watch the department thrive.

“As we continue to grow, we hope to maintain the same quality education that we have offered for some time now,” Guehlstorf says. “In the future, we also intend to hire an environmental chemist to our faculty, so we can offer our students more of those interesting practices.

“It would also be great to embrace and integrate more technology into our curricula, like using drones for geographic information systems learning, or data analytics and mass spectrometry for our toxicology classes. These offerings would certainly help our students become more marketable in the workforce.

“Use of technology across disciplines is incredibly important, and your goals are certainly achievable,” Budzban says. “I hope to be able to help you along the way in growing the Department of Environmental Sciences.”

To listen to Lin, Guehlstorf and Budzban’s entire conversation, tune in at 9 a.m. on Sunday, Nov. 19 to WSIE 88.7 FM The Sound.

By Madelaine Gerard, SIUE Marketing & Communications