

FACULTY/STAFF

Meet CEE's Undergraduate Academic Advisor



In the fall of 2014, Tom Jaworski, P.E., M.ASCE joined the John A. Reif, Jr. Department of Civil and Environmental Engineering as the full-time academic advisor for undergraduate students. Tom brings a broad range of experience to the position from his practice as a bridge design engineer and project manager for domestic and international projects, as well as from his years as an adjunct professor and guest lecturer in NJIT's CEE Department where he began teaching in 2008. He has also served as an industry technical advisor for graduate and post-graduate students and as a project partner at the Advanced Technology for Large Structural Systems (ATLSS) Research Center at Lehigh University. His areas of research at Lehigh included metal fatigue/failure and life-cycle cost analysis. He has also served as a member of a Transportation Research Board of the National Academies structures subcommittee. He has published and presented research papers at the International Bridge Conference in Pittsburgh, Pa., and at the International Structures Conference in the city of Bristol in the U.K.

Tom, who graduated from NJIT in 1985 with a B.S. in civil engineering, is currently a member of the American Society of Civil Engineers (ASCE) and chairman of the ASCE Infrastructure Report Card for New York State Bridges. He is a registered Professional Engineer in the Commonwealth of Massachusetts and is certified by the Structural Engineering Certification Board (SECB).

Charged with the task of incorporating applied engineering concepts into the CE curriculum by linking engineering principles with technology, Tom has expanded Fundamentals in Engineering Design (FED) 101, the design class for first year students to include research projects, mock interviews and resume reviews. He has invited guest speakers from industry to talk about real-world projects. These activities are designed to introduce first-year CEE students to research applications and the experience of working as a member of a team to help them decide what CEE discipline they would like to pursue. To make room for the new format, the Computer-Aided Design (CAD) portion of the class has been moved to a new course, CE 101. "Participating in a research project their first year gives students the opportunity to become familiar with basic research principles, civil

engineering discipline definitions and methods of collecting data, which together helps them become more engaged with their major,” says Jaworski.

The fall 2014 research project studied how the location of bridge infrastructure impacts daily travel commuting within a specific area. The results of this study helped understand the impacts of the need to repair or replace a bridge in an area. A small aerial data collection device and Bluetooth technology was used to collect travel mobility data. “When Professor Jaworski, my FED teacher, told our class about a possible research opportunity, I was the first to sign up because I knew I wanted to do research. Meeting with Professor Jaworski every week gave me new insights into civil engineering. So much of our class was focused on industry which was a nice change of pace to see the academic side of the field,” said first-year civil engineering student Kiera Nissen.