

CIVIL AND ENVIRONMENTAL ENGINEERING GRADUATE SEMINAR SERIES

Restoring Urban Streams, What is Natural?

The presentation discusses the difficulties in restoring healthy ecosystems in streams impacted by urban development. The presentation will include an overview of history of the stream restoration practice, now a \$5 billion industry. It will follow with some of the on-going research at the University of Tennessee to improve on urban stream restoration design methodologies integrating principles of fluvial geomorphology, engineering hydraulics, and aquatic ecology. Results from a case study on Beaver Creek, Knox County will be demonstrated high-lighting design difficulties in urban settings, and defining what is considering a successful stream restoration project.

Dr. John Schwartz is the Associate Department Head for Undergraduate Studies and Professor in the Department of Civil and Environmental Engineering at the University of Tennessee-Knoxville. His academic history includes a PhD in Environmental Engineering from the University of Illinois at Urbana-Champaign (2002), a MS in Fisheries Science from Oregon State University (1991), and a BS in Civil Engineering from the University of Missouri-Columbia (1982). My research program in water resources over the past 15 years at the



University of Tennessee has focused on the study of stressed natural systems, investigating how adjustments in physical, chemical, and biological processes lead to degradation of water quality and stream ecosystems. Dr. Schwartz teaches courses in water resources engineering, river mechanics, and stream restoration. Between degrees, he has worked for both the public and private sectors, including the US Environmental Protection Agency and engineering consulting firms.

**John
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**The Associate
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Civil &
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Knoxville**

FRIDAY

Oct. 5, 2018

3:30 p.m.

**Prescott
Hall 215**



Civil & Environmental Engineering
TENNESSEE TECH