EEE 47200 COMMUNITY-ENGAGED ENGINEERING DESIGN

M/W, 4:30-5:45 PM

Utilizing a transdisciplinary approach in a real-world, client-based service-learning design experience, students will lead the design and implementation of community-based urban water projects integrating not only their discipline-specific knowledge, but community partner and local stakeholder knowledge as well. The complex and dynamic relationships between social, economic, environmental, and political sectors in such community-based projects will be investigated.

COURSE OUTCOMES

Since 2013, EEE students in partnerships with Wabash River Enhancement Corporation have collaborated with community partners to increase the health of the Wabash River. Eighty-nine urban water projects (e.g., rain gardens, rain barrels, and native savannas), over 31,000 plants, and 46 trees have been installed at 20 community partner sites engaging over 760 community members and 150 Purdue students supported by over $375,000 in funding. Collectively, these projects divert over 4,900,000 gallons of water, 370 pounds of nitrogen, 33 pounds of phosphorus, and over 24,000 pounds of sediment from the Wabash River annually.

REGISTRATION REQUIREMENTS

Instructor approval is required and space is limited. Sophomores, juniors, and seniors are eligible. No prerequisites. Those interested in the class must send an email regarding their interest, with an up-to-date resume, to Dr. Lindsey Payne at paynel@purdue.edu no later than November 16, 5:00 PM for consideration.

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