

EEE 47200 COMMUNITY-ENGAGED ENGINEERING DESIGN M/W, 4:00-5:15 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 partnership with Wabash River Enhancement Corporation have collaborated with community partners to increase the health of the Wabash River. One hundred urban water projects (e.g., rain gardens, rain barrels, and native savannas), over 40,000 plants and trees have been installed at 25 community partner sites engaging nearly 1,000 community members and over 200 Purdue students supported by over \$400,000 in funding. Collectively, these projects divert over 7,400,000 gallons of stormwater, 400 pounds of nitrogen, 35 pounds of phosphorus, and over 26,000 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 up-to-date resume and email including 1-2 paragraphs about their interest in the course and how it fits with their future career plans--be specific and be thoughtful--to Dr. Payne at paynel@purdue.edu no later than November 6, 5:00 PM for consideration.