



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Sustainable WaSH Infrastructure for Developing Rural Communities

CIVILEN 5610.01

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Graduate (5000-8000 level)

Course Components:

Lecture

Course Description:

Working effectively with developing rural communities to identify and acquire their basic infrastructure needs demands a combination of community development and engineering expertise. This series of courses will, at an introductory level, bridge the gap between these two disciplines. It will provide the engineer with the knowledge of how to design sustainable infrastructure systems.

Prerequisites and Co-requisites:

Prereq: Permission of instructor.

Course Goals / Objectives:

- Students will have the basic skills and understanding to work with and in a community development context. Students will have introductory knowledge of the framework for participatory community development.
 - Students will understand how to identify appropriate technology for water, sanitation, and hygiene systems. Students will understand the design concepts for sustainable water supply, sanitation, and hygiene systems and be able to apply those concepts
 - on rural development projects.
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Course Topics:

- The use of language and terminology to build shared understandings for effective development. Foundational models of participatory, asset-based community development. Communication skills for working with communities,
 - including strategies to embrace diversity and manage difference. Understanding communities within their social, political and historical context. Processes for negotiating needs assessments and engaging participation.
 - Fundamental concepts of appropriate technology selection for infrastructure in developing communities. Design concepts for sustainable water supply systems in developing communities. Design concepts for sustainable sanitation systems in developing
 - communities. Design concepts for sustainable hygiene systems in developing communities. Evaluating effectiveness and developing manageable exit strategies.
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Designation:

Elective