



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Water Resources Engineering

CIVILEN 3160

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Course Components:

Lecture

Course Description:

Pipe systems, introduction to open channel flow, basic hydrology, demographic studies, water supply, and wastewater flows.

Prerequisites and Co-requisites:

Prereq: 3130 (413) or EnvEng 413; and CSE 1221 (205) or 1222 (202) or EnGraph 167 or Engr 1221 or 1222 or 1281H or Engineer; and enrollment in CivilEn or EnvEng major.

Course Goals / Objectives:

- Acquire a broad understanding of water resources engineering principles that include closed conduit hydraulics, open channel hydraulics, surface water hydrology, and groundwater hydrology
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Course Topics:

- Closed conduit flow- pipes, pumps, and design of water distribution systems
 - Open channel flow- hydraulics, hydraulic structures, channel design and wastewater systems
 - Surface water hydrology - rainfall, runoff, routing, flooding, design of stormwater systems
 - Groundwater hydrology - hydraulics, wells, and design of wells
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Designation:

Elective