THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Intermediate Reinforced Concrete Design

CIVILEN 5350

Credit Hours:
3.00 - 3.00

Course Levels:
Undergraduate (1000-5000 level)
Graduate (5000-8000 level)

Course Components:
Lecture

Course Description:
Analysis and design of reinforced concrete systems and components.

Prerequisites and Co-requisites:
Prereq: 4350, or Grad standing in Civil Engineering, or permission of instructor.

Course Goals / Objectives:
- Learn to design, analyze, and detail reinforced concrete members and structures
- Learn both theoretical basis for, and practical applications of reinforced concrete design according to current design standards
- Learn to design continuous beams, two-way slabs, columns and footings
- Design a complete reinforced concrete structure as part of a term project

Course Topics:

- Review of strength design concepts
- Design loads and material properties
- Review of beam and one-way slab design and applications
- Bond, anchorage, and detailing of continuous beams
- Torsion
- Two-way slabs
- Column design and slender columns
- Footings and foundation design
- System design, serviceability and deflection considerations

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Designation:

Elective