



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# Capstone Design

## ISE 4900

**Credit Hours:**

4.00

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**Course Levels:**

Undergraduate (1000-5000 level)

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**Course Components:**

Lecture  
Recitation  
Lab

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**Course Description:**

In-depth systems design project for industrial engineering. Exploration and selection of design alternatives; justification, recommendation, and presentation of problems and potential solutions.

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**Prerequisites and Co-requisites:**

Prereq: 2040, 2400, 2500, 3200, 3210, 3400, 3600, 3700, 3800, 4100, and 4120, and enrollment in ISE major.

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**Course Goals / Objectives:**

- Give students experience in solving real world systems engineering problems
  - Integrate relevant material from their other courses (IE and other areas)
  - Learn how to manage projects, effect change in industrial organizations, and resolve conflicts
  - Further develop skills in making oral technical presentations
  - Further develop professional report writing skills including the ability to appropriately reference and build upon refereed published research
  - Further develop group problem-solving and inter-personal skills
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**Course Topics:**

- Course Administration, Team Assignments, Overview of Requirements, Major Milestones and Grading
  - Professional and Ethical Conduct, Meetings, Presentations, Reports, Searching Research Literature, Project Assignments and Discussion
  - Discussion of First Meetings With Sponsors and Problem Solving Review
  - Background and problem definition
  - Preliminary analysis and design
  - Final analysis and design.
  - Project work with sponsor/faculty mentor/teammates
  - Project management overview
  - Organizational behavior/Change management
  - Time management/Conflict resolution
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**Designation:**

Required