



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

ME Capstone Design I: Humanitarian Projects

MECHENG 4904.01

Credit Hours:

2.50

Course Levels:

Undergraduate (1000-5000 level)

Course Components:

Lecture

Course Description:

First course of 2-semester capstone sequence. Students work on design problems that have a humanitarian focus. Emphasis on problem definition, requirements, and design proposal.

Prerequisites and Co-requisites:

Prereq: 3360, 3671, and 3870. Prereq or concur: 4510, and enrollment as a MechEng-BS Student, or permission of instructor.

Course Goals / Objectives:

- Student will understand design as a process.
 - Students will apply core engineering skills to the design process.
 - Students will appreciate the challenges and complexity of the design process.
 - Students will appreciate design as a process for taking an idea or need from concept to realization of a deliverable (component, system, process).
 - Students develop key professional and project management related skills and understand their relationship to the design process.
 - Students appreciate design as the culminating ability and skill arising from their studies.
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Course Topics:

- Definition of problem and design specifications for humanitarian projects
 - Professional codes and standards applicable to design problems defined
 - Analysis of literature germane to topics chosen
 - Breaking design down into manageable subsystems
 - Report requirements and general communications
 - Topics specific to humanitarian projects
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Designation:

Required