

MECH 4808 - Mechanical Systems Design 1

Fall 2026 Syllabus, Section 01, CRN 40788,

Credit hours: 2

Instructor

Hazel Marie

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Public Instructor Information

Instructor Title: Hazel Marie, Ph.D., P.E.

Instructor Professional Qualifications:

Professional Engineers License PE.73282

Ph.D., Mechanical Engineering, University of Akron

M.S., Mechanical Engineering, Youngstown State University

B.S., Mechanical Engineering, University of Texas - Austin

Instructor Office Location: Moser 2515

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Course Description

4808. Mechanical Systems Design 1. Detailed design of a mechanical engineering system utilizing expertise expected of a new graduate in an industry setting. Design methodology, case studies, oral presentations, and written reports prepare the student to function as part of a design team on a capstone project. MECH 4809 must be taken at the next offering after completing 4808. Grading in MECH 4808 is Traditional/PR. Two hours lecture per week. Prereq.: MECH 3708, MECH 3725, MECH 3742, and MECH 3762. 2 s.h.

Course Readings

Group	Title	Author	ISBN
Optional	Engineering Design, 6th ed.	Dieter and Schmidt	9781260113297

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Tentative Schedule of Topics and Assignments

Week of	Proposed Topic	Due/To Prepare for Class
8/24	Introduction to Capstone Courses	Safety Training Acknowledgement
8/31	Project Management Lecture Series	Working Style Assessment
9/7	Project Management Lecture Series	Resume/Cover letter Assignment
9/14	Project Management Lecture Series	House of Quality Project Goals/Engineering Requirements
9/21	Project Management Lecture Series	Project Charter
9/28	Project Management Lecture Series	Codes and Standards
10/5	Presentation: Project Management	Risk Assessment - Risk Identification
10/12	Project Management Lecture Series	Individual and Group Tuckman Assessment
10/19	Project Management Lecture Series	Group Report 1
10/26	Project Concept Essentials	Project Management Self and Peer Evaluation
11/2	Project Concept Essentials	Report Organization
11/9	Project Concept Essentials	Individual Design Loop Assessment
11/16	Project Concept Essentials	Individual Design Loop Remaining Plan



11/23 Project Concept Essentials

11/30 Presentation: Project Solution Concepts

Group Report 2

12/7

Individual Technical Report

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.