Creative Decisions and Design

Last Updated: Wed, 12/17/2025

Course prefix: ME

Course number: 2110

Section: A

CRN
27113

Instructor first name: Martin

Instructor last name: Jacobson

Semester: Spring

Academic year: 2026

Course description:

ME2110: Creative Decisions and Design is a hands-on course focused on design, prototyping, and testing of solutions to complex problems. Students work in teams to build autonomous robots for a competitive design challenge, applying principles of design thinking, prototyping, sensing and controls. The course emphasizes iterative development, system integration, and root cause analysis, supported by CAD modeling, technical report writing, and rapid prototyping. Students learn to plan experiments, analyze data, and communicate the value of design decisions under multiple constraints. The course builds creativity supported by technical rigor and teamwork skills to prepare students for Capstone and engineering practice.

Academic honesty/integrity statement:

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy.

- LLMs such as ChatGPT, Grok, Claude, Copilot, Gemini, etc. can be excellent tools to generate ideas, stress-test reasoning, and identify gaps in analysis. They are not substitutes for doing the engineering work (modeling, measurement, testing, and justification).
- Do not copy LLM text into deliverables. Treat LLM output like any web source. Verify facts with authoritative references and cite those, not the LLM.
- Unacceptable use of LLM's include:
    - Copy-pasting blocks of LLM text into your report or slides.

- Using LLMs to fabricate data, citations, specifications, or test results.
- Presenting LLM output as authoritative without independent verification.
- Asking LLMs to write your analysis or conclusions for you.