

CAPSTONE DESIGN

Senior Project sponsorship

The **MIME Capstone Design** experience puts the final polish on our students' track to become professional engineers.

Contact us!
if you have a project idea that is:



Product-Focused

- You **have an idea** or need for a new mechanical or electro-mechanical device or process, but don't have the time, resources or facilities to do it yourself.
- You'd like to **improve the efficiency** or ergonomics of machinery on your manufacturing floor.
- You need help **solving a problem** with an existing mechanical/electro-mechanical device or process.
- You'd like a custom software application designed to **improve decision-making or recordkeeping** in your manufacturing or service operations.

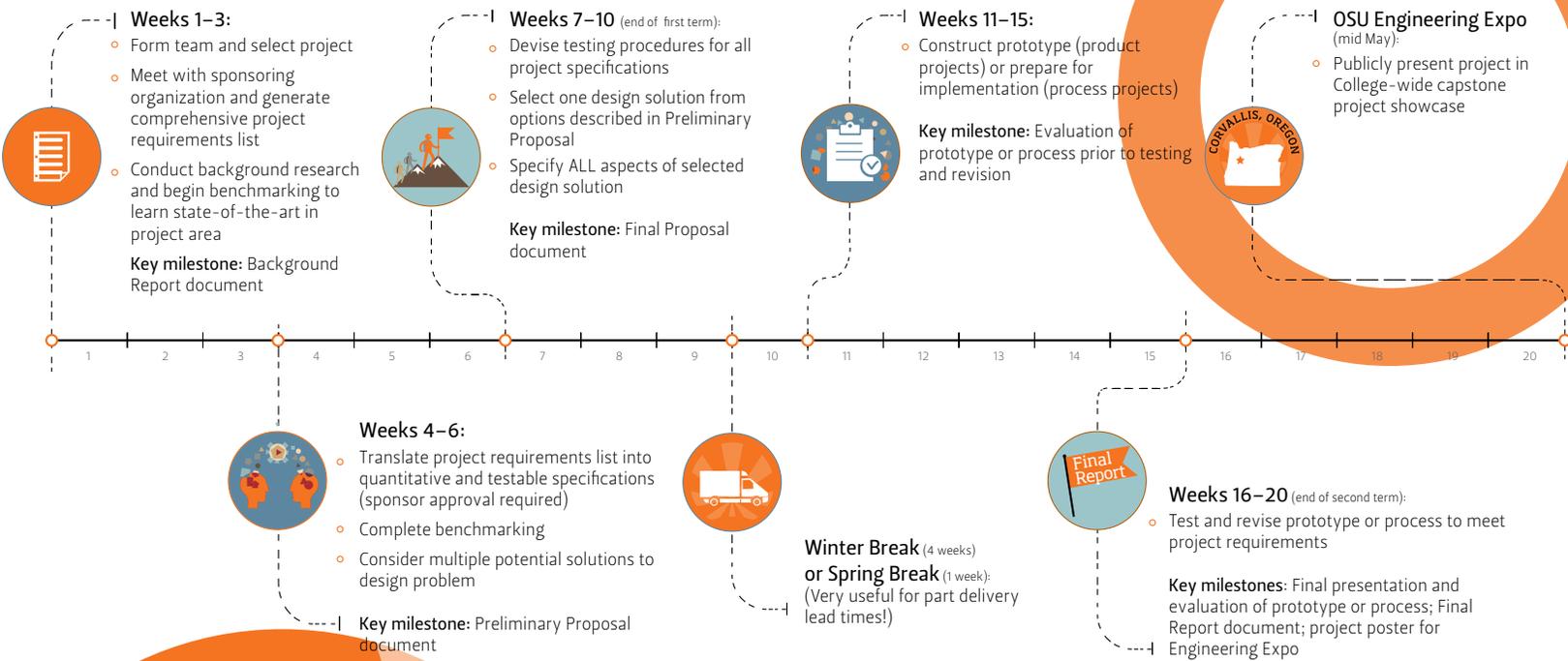
Process-Focused

- You see manufacturing or service processes that could be **improved for greater effectiveness**, efficiency, and/or safety.
- You see that your operations are hampered by **poor facilities layout**.
- Your workstations could be improved through ergonomic **analysis and re-engineering**.
- You'd like to analyze, optimize, and **clearly document work procedures** to reduce process and product variability

Key to Great Projects

1. Projects must address a technical issue or problem in the area(s) of mechanical, industrial, manufacturing and/or energy systems engineering.
2. Project completion must involve interaction with the project sponsor to:
 - Fully define design specifications;
 - Consider multiple design alternatives;
 - Implement, test, and revise the design.
3. The project scope must be suitable for:
 - Development of a complete paper or conceptual solution in 10 weeks;
 - Implementation, testing, and revision of the solution in the following 10 weeks.

How MIME Capstone Design Projects Work – Course Timeline and Project Milestones



Benefits to Students

The MIME Capstone Design experience brings our students' education full circle with a "real-world" assignment. Students are responsible for all aspects of their project, including:

- Working with the project sponsor to fully define project requirements and design specifications.
- Analyzing and benchmarking "state-of-the-art" solutions and current systems in the project area.
- Identifying multiple design solutions.
- Spec'ing a complete design including, as needed, component sizing, sourcing, and budget.
- Implementing and testing the design, and revising it to meet requirements.
- Meeting project deadlines.

Benefits to Industry

MIME Capstone Design project sponsorship is a two-way relationship that promises significant returns for your participation:

- A relatively small investment of time and money provides a solution to a design problem.
- Sponsorship provides a "no-obligation" opportunity to work with and train potential future hires.
- It raises your organization's visibility at Oregon State University (and beyond) and leads to stronger working relationships with OSU MIME faculty.
- Project sponsorship is a tool with which you can help shape and influence our next generation of engineers — in Oregon and the Pacific Northwest, and around the world.

Sponsorship – The Fine Print

Proposal Submission

Your MIME capstone project proposal should include a descriptive title, brief summary of problem, and concise listing of project requirements and constraints. (The student team will work with your company to finalize the requirements.)

Project Mentor Involvement

The project mentor serves as the project team's technical consultant and point person, and reviews and approves project milestones. This individual typically makes several trips to

campus and also may host the team for onsite visits.

Team Interaction Expectations

Project sponsor–student team interactions are extremely important and should occur regularly throughout the project. The project mentor must approve the documentation generated at each project milestone. These documents serve as contracts for what the project team must accomplish.

Intellectual Property (IP)

By default, any IP created by the student team during the project belongs to the students. However, other IP arrangements also may be negotiated.

Project Funding and Sustaining Donation

Project sponsors are expected to provide funding and/or materials for prototype construction and process implementation. We also request a \$5,000 sustaining donation in support of the MIME Capstone Design program.