CAPSTONE DESIGN PROGRAM GUIDE

Capstone Design
College of Engineering
UNIVERSITY OF GEORGIA

CAPSTONE AT A GLANCE

The College of Engineering Capstone Design program provides industry and community partners the unique opportunity to work with a multidisciplinary team of engineering and computing students focused on accomplishing innovative and impactful projects.

Over the course of this two-semester program, students lead engineering design projects from planning to completion. While benefiting the partner, students develop essential leadership and professional skills required of them when entering the workforce, including creative problem-solving and cooperative collaboration.

9 MAJORS

PARTICIPATING DISCIPLINES:

- Agricultural Engineering
- Biochemical Engineering
- Biological Engineering
- Civil Engineering
- Computer Science
- Computer Systems Engineering
- Electrical and Electronics Engineering
- Environmental Engineering
- Mechanical Engineering

500+ STUDENTS

ENGR + CS SENIORS

Capstone Design is a required component of all UGA engineering undergraduate programs. Project partners have the opportunity to engage with over 500 upcoming graduates in engineering and computer science each year.

130+ PROJECTS

PROJECTS COMPLETED FOR PARTNERS

We collaborate with partners across a variety of sectors and industries to complete over 130 projects annually. UGA Capstone Design students deliver innovative solutions and designs that impact organizations and communities across the state of Georgia and beyond.

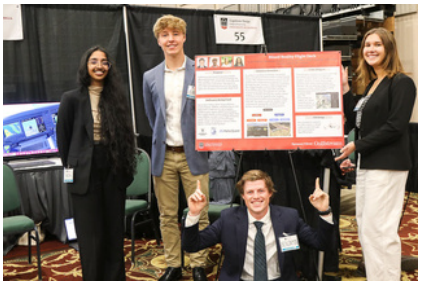
$25K+ IMPACT

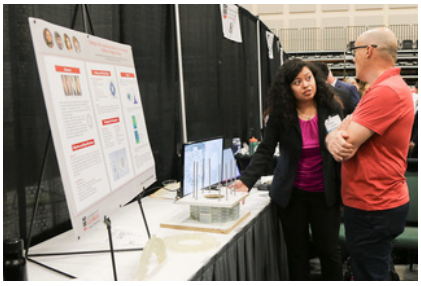
PROJECT FINANCIAL IMPACT

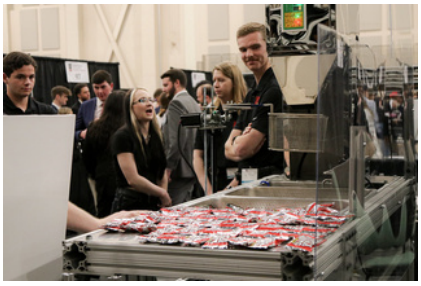
Capstone projects provide tangible value for our project partners. 2024-2025 project partners estimated that their projects had an average financial impact of $25,760 on their organizations or communitiies.

SENIOR DESIGN THE GEORGIA WAY

The Capstone Design Program at UGA strives to create an experience like no other for our partners and students. Our unique program structure provides the necessary support and educational milestones for a successful team, while remaining flexible enough to tailor the experience to specific organization and project needs.







MULTIDISCIPLINARY TEAMS

Our design teams span multiple disciplines, allowing us to create a team custom-made with the skills and backgrounds needed on your project.

FULL ACADEMIC YEAR

Students devote the entire academic year, September - April, to a single project. Students spend the fall semester diving deep into problem indentification, and developing multiple design alternatives. Spring semester is devoted design development with students testing, evaluating, and prototyping the most promising solution.

COLLEGE-WIDE PROJECT SUPPORT

At the College of Engineering, Capstone Design is not siloed across different disciplines or departments. Our program streamlines project proposal, management, and communication to a single platform, EduSourced. Program faculty and staff work together to create a consistant, high-quality experience for all partners.

LEADERSHIP DEVELOPMENT

All Capstone Design students participate in a one-of-a-kind Emerging Engineering Leadership Development Program (EELD), that was created in partnership with the J.W. Fanning Institute for Leadership Development. The EELD program was specifically developed to equip our students with the professional and leadership skills needed for success in their projects and for life after graduation. Program content covers topics such as conflict resolution, stakeholder engagement, and working across generations.

PROJECT TIMELINE

AUGUST

Students assigned to project teams based on interest and rankings, skill assessment, leadership style and preferences of sponsor. Partners notified via email of project status and begin working with student teams in EduSourced platform.

OCT-NOV

Student teams continue to work with partner using EduSourced to research, brainstorm and benchmark potential design alternatives to solve the problem. Students will provide a mid-semester update on their project status.

JANUARY

Prototype, draft, and/or simulate a process, blueprint, or system that can be implemented for advancement. Monthly design reviews with partner.

MARCH

Teams refine their proposed design solution with the partner and faculty mentor for final presentation in April.

MAY

Potential partners may submit project ideas using the EduSourced project management platform beginning in January, with a final deadline of **May 31**.

SEPTEMBER

Student teams begin meeting with partner to define the need/problem and project specifics. This can include a site visit if associated with project sponsorship listed on pg. 4.

DECEMBER

Students schedule meeting with partner to discuss mid-project reports and present their design strategy for spring semester.

FEBRUARY

Teams verify the functionality of the solution and validate that the approach meets the needs of the stakeholder.

APRIL

Students present final project deliverables & outcomes with partner. Teams present at the Design Showcase in late April, displaying their prototypes, designs, and solutions to judges and attendees.

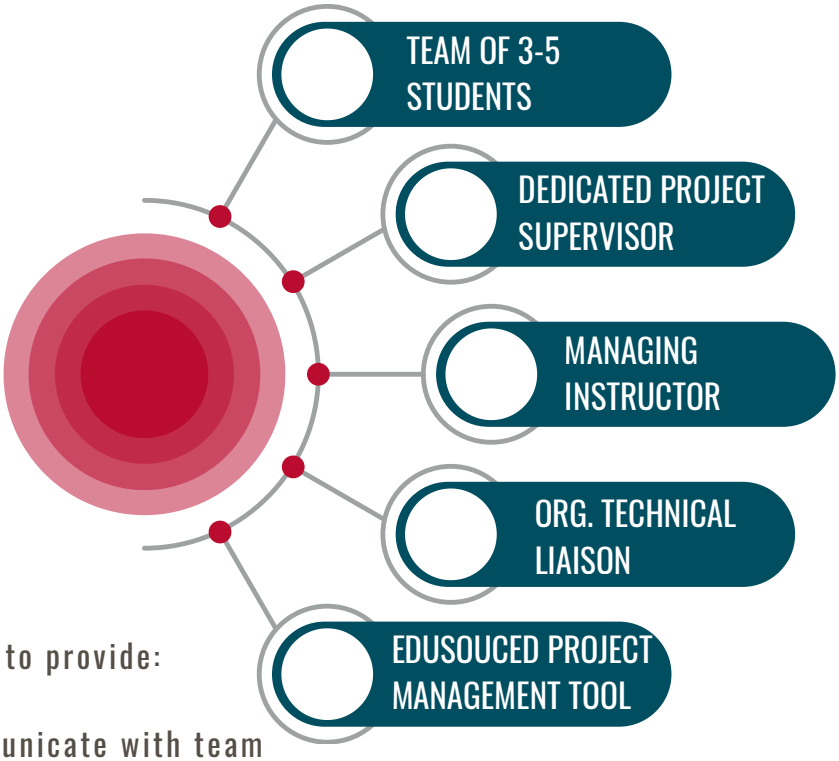
PARTNER ON A PROJECT

PARTNERS CAN EXPECT

Benefits of becoming a project partner include:

- Dedicated project team of students
- Assigned faculty member to serve as project supervisor
- Standard project Deliverables:
  - Detailed project report
  - Final project presentation
- Additional deliverables could include: prototype, design drawings or schematics, etc.

PROJECT SUPPORT NETWORK



WHAT WE ASK

For a successful project, we ask partners to provide:

- A technical liaison or contact person
- 3-5 hours per month to meet or communicate with team
- Access to specialized equipment, facilities when required
- Specific supplies or materials as needed (compnay maintains ownership)

TIPS FOR YOUR PROJECT PROPOSAL

- Plan to include a detailed summary of your project, requested deliverables, and any specific disciplines or skills required in your proposal.
- Include a significant design component- required for all projects to meet capstone educational objectives
- Be as detailed as possible. Projects with measurable goals and tangible impact are most appealing.
- Consider product/process improvement or backburner projects for your organization.
- Evaluate whether IP agreements or NDAs are truly required. This process can take time.
- Consider projects that address high-need areas for our program (mechanical, biological /biochemical, and aerospace). These projects have the greatest chance of being staffed.

Ready to submit your project?
visit ugaengineering.edusourcedapp.com/submit

SPONSORSHIP OPPORTUNITIES

Capstone Design Program sponsorship provides funding to support project materials, leadership development certification, project supervision, software, tools, and other resources to ensure students reach the best outcomes for their clients. Capstone design program participation and sponsorship has been used by many companies and organizations to recruit talented graduates. Contributions from sponsors allow the college to continuously make enhancements to improve the student and client experience, while eliminating financial barriers that could potentially hinder successful project outcomes.

***All supporters through the sponsorship options below will receive priority consideration of projects as student teams are being assigned.**

SPONSORSHIP LEVELS

FOUNDATIONAL SPONSOR - $5,000

- Listed as industry supporter on College of Engineering capstone website
- Priority consideration of 1 project proposal
- Site-visit for project team (within budget and reason)
- Logo displayed at Capstone Design Showcase and in event program

PREMIUM SPONSOR - $10,000

- All aspects of Foundational Sponsorship plus:
- Ability to submit 1 additional project with priority consideration during project selection process
- Promotion of company support on College of Engineering social media channels
- Creation of project highlight video to be featured on College of Engineering social media and capstone website

ELITE SPONSOR - $25,000

- All aspects of Premium Sponsorship plus:
- Consideration as Design Showcase Sponsor, to include promotion of support in all event marketing materials
- Included as College of Engineering Black Level Corporate Partner, benefits include:
    - Display of company logo on Corporate Partner Wall within Driftmier Engineering Center
    - Complimentary registration for Spring and Fall UGA Engineering & Computer Science Career & Internship Fair (2 events, $1,500 total value)
    - 2 registrants for the National Engineers Week Banquet (February)
    - Early access to Employer of the Day date selection

CONTACT INFORMATION

GENERAL PROGRAM INQUIRIES: CAPSTONE@UGA.EDU

INITIAL CONTACT FOR CIVIL, ENVIRONMENTAL, ELECTRICAL & COMPUTER ENGINEERING PROJECTS

STEPHAN DURHAM, PH.D.,P.E.
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INITIAL CONTACT FOR BIOLOGCAL OR BIOCHEMICAL PROJECTS & CAPSTONE DESIGN SHOWCASE

LAUREN ANGLIN, M.ED.
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INITIAL CONTACT FOR MECHANICAL ENGINEERING PROJECTS

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CONTACT FOR PROGRAM SPONSORSHIP OPPORTUNITIES

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