The Capstone Senior Design course provides industry and community partners the opportunity to work with a team of senior engineering students focused on accomplishing innovative and impactful projects. While benefiting the partner, students develop essential skills required of them when entering the workforce that includes teamwork, creative problem solving, cooperative collaboration, while given the opportunity to lead an engineering design projects from planning to completion. The ethics, laws, rules and regulations, licensure, leadership, and professional practice of engineering are important aspects of this course.

Further, students complete their projects through participation on multi-disciplinary team for the workforce including team building, creative problem solving, cooperative collaboration, and participating in projects from planning to completion.

Companies, organizations, faculty members, and members of the community are encouraged to propose project ideas for future Capstone Senior Design projects. Project proposals are due each July and reviewed by College of Engineering faculty. Selected project sponsors will be notified early during the Fall semester. (More information provided in the timeline section of the packet.)
CAPSTONE SENIOR DESIGN

OVERVIEW

Project Assignments:
Capstone Senior Design students will be assigned to a project and project team early during the fall semester. Project assignments are based on:
· Project needs and preferences of project sponsors
· Faculty recommendations and assessment of student skills
· Student interests and project rankings

Project Sponsor Responsibilities:
Each project sponsor provides a point of contact from their organization that serves as a resource for the student team to provide updates and ask questions concerning the project. Additional responsibilities of Capstone Sponsors include meeting regularly with the design team (in-person, videoconference, phone), providing materials and project specific requirements for prototype fabrication and design, review and feedback on the design project deliverables, and attending the Capstone Senior Design Showcase in April. Deliverables include a student final design report and associated products that may include prototypes and design drawings.

CAPSTONE DESIGN SHOWCASE

Each year, Capstone Senior Design students present at the Senior Design Showcase, displaying their prototypes, designs and solutions developed for their projects. During the event, projects are evaluated by a judging team comprised of engineering professionals in both industry and academia. Capstone projects are evaluated based on criteria aligned with the learning outcomes outlined by ABET. Awards are given for the best projects in the following categories:
· Community Impact
· Computerized System or Software Design
· Machine Design
· Manufactured System or Process Design
· Medical Device or Biological Process Design
· Sustainable Design
FACULTY & STAFF
CAPSTONE SENIOR DESIGN CONTACT LIST

FOR QUESTIONS CONCERNING CAPSTONE SENIOR DESIGN COURSE REQUIREMENTS

STEPHAN DURHAM, PH.D.
PROFESSOR & ASSISTANT DEAN FOR STUDENTS SUCCESS & OUTREACH
SDURHAM@UGA.EDU

FOR QUESTIONS CONCERNING STUDENT PROJECT PARTICPATION OR CAPSTONE DESIGN SHOWCASE

LAUREN ANGLIN.
DIRECTOR OF EXPERIENTIAL LEARNING & OUTREACH
LAUREN.ANGLIN@UGA.EDU

FOR QUESTIONS CONCERNING SIP, MTA, OR NDA INFORMATION

KELLEY SAUSSY
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KELLEYRW@UGA.EDU

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DIRECTOR OF INDUSTRY COLLABORATIONS
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# PROJECT TIMELINE

<table>
<thead>
<tr>
<th>TASK</th>
<th>TIMEFRAME</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project submissions accepted</td>
<td>April 1 - July 9</td>
<td>If your project submission requires more details to move forward, you will be notified between July 8 - 31</td>
</tr>
<tr>
<td>First Day of Class- Fall Semester</td>
<td>August 18</td>
<td></td>
</tr>
<tr>
<td>Students meet with Client/ Site Visit</td>
<td>September 3 - 15</td>
<td>You will be notified of the status of your project via via e-mail</td>
</tr>
<tr>
<td>Project Midterm Evaluations</td>
<td>October 18 - 22</td>
<td>Students will provide a mid-semester update on project status.</td>
</tr>
<tr>
<td>Preliminary Reports Due and Design Presentations for Clients</td>
<td>December 8 - 15</td>
<td>Students will schedule a meeting to discuss their preliminary project reports and present their strategy for the spring semester</td>
</tr>
<tr>
<td>First Day of Class- Spring Semester</td>
<td>January 10</td>
<td></td>
</tr>
<tr>
<td>Project Midterm Evaluations</td>
<td>March 7 - 11</td>
<td>Students will provide a mid-semester update on project status.</td>
</tr>
<tr>
<td>Final Presentations for Clients</td>
<td>April 4 - May 5</td>
<td>Students will schedule a meeting to present their final project deliverables/outcomes</td>
</tr>
<tr>
<td>Capstone Design Showcase</td>
<td>TBD/ Late April</td>
<td>Students Present at the Senior Design Showcase displaying their prototypes, designs, and solutions developed for their projects</td>
</tr>
</tbody>
</table>
EDUSOURCED

PROJECT MANAGEMENT PLATFORM

The College of Engineering is pleased to offer a comprehensive software platform for managing and engaging on your Capstone projects. This platform centralizes all important information and files related to your project, while also facilitating collaboration and remote work on project milestones.

Key Features:
- **Efficient Team Communication:** Quickly see the students and faculty members on your project team, email entire teams with one click, and post discussion items with ease.
- **Microsoft Office Online:** Share files in Office programs (Word, Excel, PowerPoint, etc.) and view student work in real-time via Office Online integration.
- **Project Dashboard & Project Health:** Personalized dashboard allows you to see how your team is progressing on project milestones. Project health is a quick project assessment tool to see whether your project is on-track or behind.
- **Company Information & Project Archive:** No need to submit company information each year, your contact information and company details are saved once an account is created. Previous year's project information and files remain accessible and archived after a project is completed.

EDUSOURCED FOR SPONSORS

The College of Engineering EduSourced platform located at ugaengineering.edusourcedapp.com is a great tool for managing your project and interacting with your project team.

**Sponsors use EduSourced to:**
- Submit project proposals
- Communicate with students, faculty mentors
- Share and collaborate on files
- View deliverables and track progress
- Collaborate with faculty mentors
- Share feedback on Capstone experience

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05
SUBMISSION PROCESS

- Project proposals can be submitted online at https://ugaengineering.edusourcedapp.com/submit
- We typically solicit project submissions from April - July each year, although early submissions are acceptable.

INFORMATION REQUIRED

The College of Engineering requires the following information in order to consider your project submission:

- Project Name
- Name of Client or Organization
- Client contact person
- Client or Company Description
- Project Description: Give a detailed overview of your project including information on the design elements or components or your project.
- Project Summary: Include a short summary of your project that will what is visible to students when they rank their top project choices.
- Disciplines Involved (Agricultural, Biochemical, Biological, Civil, Computer Systems, Electrical, Environmental, and/or Mechanical):
- Required Deliverables/ project outcomes
- Is there any potential for IP related to your project? Will Non-disclosure agreements be required for members of your project team?
- Will any certifications or specialized training be required for students to participate in this project?

Please feel free to submit any photos or additional documentation as needed to better understand your project. Supporting documentation can be sent to lauren.anglin@uga.edu
SAMPLE PROJECT SUBMISSION

Project Name: Southern Crescent Technical College: Campus Entry Redesign

Client: Southern Crescent Technical College
Dr. Alan Stanfield, Associate Vice President, Facilities & Operations
501 Varsity Road Griffin, GA 30223
*Please coordinate all communications with Kristen Miller in the Griffin + Spalding County Archway Partnership office

Client Information:
Southern Crescent Technical College, a unit of the Technical College System of Georgia, is an institution of higher education that delivers relevant technical education at the associate degree, diploma, and certificate levels and workforce training programs via traditional and distance learning formats that promote lifelong learning and impact economic development in the west central Georgia region that spans south of Atlanta and north of Macon.

Project Background:
The project shall consist of developing a design plan for the main entrance to the Griffin Campus. The entrance design project will include the development of approximately four acres of land located on the corner of North Expressway and Varsity Road. The area will feature a new Southern Crescent Technical College sign, divided entry driveway, landscaping, additional parking, deceleration/acceleration lanes and directional signage. The project will also create a safe loading and unloading pedestrian zone for vehicular traffic. Currently, the proposed entrance is occupied by the fire station which will be demolished by August 2018. The removal of the fire station will allow for road frontage and exposure of the campus from North Expressway.

Required Deliverables:
- Design of divided entry way to the campus
- Design of entrance signage
- Development of a landscaping plan
- Deceleration/acceleration lane design
- Rendering of drawings and plans that demonstrate the scope of the project

Disciplines Involved: Civil and Environmental Engineering
Depending on the scope and scale of the Capstone Senior Design Project, Intellectual Property, Material Transfer and/or Non-Disclosure Agreements may need to be established to initiate the project. All agreements put forth will be reviewed by University legal counsel with the student representatives in order to ensure an agreement among all parties. The following text provides a brief overview of standard policies and definitions provided by the university.

More information can be found: https://research.uga.edu/gateway/.

**Intellectual Property Policy of the University of Georgia:**
As a land grant institution, the University of Georgia strives to make its research discoveries available for public benefit, while simultaneously recognizing the responsible researchers. This effort includes diligently identifying and marketing intellectual property (IP) derived from UGA research. Our goals are to support, facilitate and reward UGA inventors, and to work flexibly with industry to move university-derived IP into the market in a timely manner. We are proud of UGA’s successes in this arena, including the university’s perennial ranking at or near the top for key metrics of technology commercialization by academic institutions, most notably the number of products based on university research entering the market annually.

**Collaboration:**
Collaboration between University Personnel and persons not employed or associated with the University, including researchers at other universities or companies, can result in the development of Intellectual Property jointly owned by the University and other persons or their employers. Protection and commercialization of such joint Intellectual Property can be difficult without extensive cooperation and agreement among the owners. Accordingly, it is important for University Personnel involved in or contemplating collaborative activities that may result in the development of Intellectual Property to advise the UGA Research Foundation of such activities.
Sponsor-Supported Efforts:
Sponsored project agreements often contain specific provisions with respect to ownership of Intellectual Property developed during the course of such work, in which case the terms of the sponsored project agreement shall establish ownership. When the sponsored project agreement is silent on the matter, all rights in Intellectual Property shall vest in the University.

Material Transfer Agreements:
A Material Transfer Agreement ("MTA") is an agreement governing the transfer of a tangible material from one party to another. It is essential that these agreements be put in place before materials are shared to avoid misunderstanding between the parties and to protect their intellectual property and business interests. Examples of tangible materials are plant or microbial cultures, monoclonal antibodies, plasmids, nucleotides, proteins and chemicals.

Non-Disclosure Agreements:
A Non-Disclosure Agreements ("NDA"), or Confidentiality Agreement ("CDA"), is an agreement between two parties to keep shared information secret. These types of agreements are often required to protect business practices of potential business partners and early-stage research findings between research collaborators for later publication or patenting.

FOR QUESTIONS CONCERNING IP, MTA, OR NDA INFORMATION, PLEASE CONTACT:

CRYSTAL LEACH,  
PH.D  
DIRECTOR OF INDUSTRY COLLABORATIONS  
CSLEACH@UGA.EDU

KELLEY SAUSSY  
DIRECTOR OF CORPORATE ENGAGEMENT  
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