**UNC Charlotte – Lee College of Engineering Senior Design Program**

**Process for Supporting a Senior Design Project**

Thank you for your interest in participating in the UNC Charlotte Lee College of Engineering Senior Design Program. The Program’s goal is to provide students with industry design challenges as part of their Senior Design academic course. In this capacity, our students gain real world engineering experience while companies benefit from completed work on elective research projects. The ideal project should not be on a critical path for the company (“backburner” projects are good candidates), nor pertain to trade secrets or corporate sensitive information. Project last for two semesters.

The senior design teams typically consist of 4-6 students, a faculty mentor, and a technical contact from the industry supporter. We estimate about 250 hours of work output per student over two semesters. The tax-deductible donation to cover the costs of participation is $9,500. $3,250 of this amount is given to the students to cover their material and travel costs for the project. The balance of the donation is to cover the overhead costs of running the Program. This cost covers both semesters. Project expenses of more than $3,250 will not be authorized unless the supporter agrees to additional funding. Unused material budget money does not roll over to future projects and is returned to the Program to offset overheads. Donations will be invoiced (Net 30) once the Project Description (pages 2-3 of this document) is finalized and the project is accepted and staffed for the upcoming semester – that will be in the Aug 2024 – May 2025. timeframe.

As a tax-deductible donation to a non-profit educational program, results cannot be guaranteed, and the project work should not be considered contract engineering.

Our goal is to have Fall 2024 Semester Projects defined by May 1, 2024. There are a limited number of slots, projects are accepted on a first come, first serve basis, and once sold out, a project will be put on a waiting list for the following semester.

The documentation (see following pages) required from the industry supporter:

1. Company information for the technical and the financial representatives.
2. A short description of the intended project with expected deliverables/results (Project Description Form). Students will use this information to select their project preferences and Faculty will use it to develop a staffing plan for the project. Examples of completed forms from past projects can be viewed at: <https://isl.uncc.edu/senior-design-program/project-examples>

Email forms to the Program Director, Jim Hartman ([jim.hartman@uncc.edu](mailto:jim.hartman@uncc.edu)). If you have any questions or need help defining the scope, please email or call Jim at 704-614-9766.

Project work starts in August 2024 with the Senior Design Kickoff Event on August 28, 2024. This is the first meeting between the team and the industry supporter with the objective being the further definition of the Statement of Work and Specifications for the project. The first semester is the design phase, and the second semester is the implementation/build phase. The teams will meet weekly with their faculty mentor to discuss progress. Supporter technical representatives are invited, at their option, to attend by phone, virtual meeting, or in-person. Each semester, there are the Kickoff Breakfast, two design reviews and an end of semester exposition – attendance of these 4 events (on-campus) is mandatory to ensure awareness and agreement for project direction. The first semester Senior Design Expo is December 6, 2024, and the second semester Expo is May 1, 2025. We look forward to your participation in the Senior Design Program!

***Company Information***

|  |  |  |  |
| --- | --- | --- | --- |
| **Company Name** | *Insert your company name here* | **Date Submitted** | *MM/DD/YYYY* |
| **Project Title** | *Insert the name of your Project here* | **Planned Starting Semester** | *Fall 2024* |

**Faculty Mentor**

Faculty Mentor will be assigned to the project. If you have been previously working with a faculty mentor and want to continue that relationship, then enter their name here \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­. We cannot guarantee that faculty mentor will be available, but we will try to make that assignment if possible.

**Technical Contact(s)\***

|  |  |  |  |
| --- | --- | --- | --- |
| **Technical Contact** | **Name** | **Email** | **Phone** |
| **1** |  |  |  |
| **2** |  |  |  |
| **3** |  |  |  |

\*We would like to have more than one technical contact, so there is a back-up in case of travel, sickness, job re-assignment, etc. Also, these are the people that will have Event (Kick-off/Expo) invitations and name badges made for them, so please identify them to us so we can properly include them.

**Financial Contact\*\***

|  |  |  |
| --- | --- | --- |
| **Name** | **Email** | **Phone** |
|  |  |  |

|  |  |
| --- | --- |
| **Billing Address** |  |

\*\* This is the person that understands that they will receive and process the invoice.

***Senior Design Project Description***

**Personnel**

Typical teams will have 4-6 students, with engineering disciplines assigned based on the anticipated Scope of the Project.

Please provide your estimate of staffing in the below table. The Senior Design Committee will adjust as appropriate based on scope and discipline skills.

|  |  |  |  |
| --- | --- | --- | --- |
| **Discipline** | **Number** | **Discipline** | **Number** |
| Mechanical |  | Electrical |  |
| Computer |  | Systems |  |

**Company and Project Overview:**

Provide background information about the company (what the company does, product examples, pictures, etc.), and an overview about the context for the project.

**Project Requirements:**

This is a more detailed description of the design problem, project objectives and the desired output – describing the scope and specifications for what the project team will actually be designing and producing.

**Expected Deliverables/Results:**

* Bullet list of all deliverables that the team is to provide to the supporter at the end of the project. Be specific here to avoid misunderstandings.

**Disposition of Deliverables at the End of the Project:**

Students are graded based on their display and presentation of their team’s work product. It is mandatory that they exhibit at the Expo, so if the work product was tested at the supporter’s location, it must be returned to campus for the Expo. After the expo, the team and supporter should arrange the handover of the work product to the industry supporter. This handover must be concluded within 7 days of the Expo.

**List here any specific skills, requirements, specific courses, knowledge needed or suggested (If none please state none):**