Thank you for agreeing to become a corporate mentor for a UTDesign team. Our students are very excited to work on actual engineering problems and with real corporate clients.

Every engineering and computer science senior at UT Dallas is required to work on a team-oriented capstone project (senior design course). This final project will allow them to fully engage in the design process, teamwork, and project management as well as use their problem solving skills.

The Erik Jonsson School of Engineering and Computer Science offers the capstone design course for the following departments:

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>CS</th>
<th>EE, CE, TE</th>
<th>ME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td>CS 4485</td>
<td>EE/CE/TE 4388</td>
<td>MECH 4381</td>
</tr>
<tr>
<td>Semester 2</td>
<td>n/a</td>
<td>EE/CE/TE 4389</td>
<td>MECH 4382</td>
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The following summarizes the key roles of those involved in UTDesign:

- **UTDesign department coordinator**: The department faculty member who recruits corporate sponsored projects, recruits faculty advisors, assigns students to teams, and stewards the Jonsson School/corporate relationship.
- **UTDesign faculty advisor**: The faculty member who, using their expertise and interests specific to the project topic, provides guidance to the team as they execute their project.
- **UTDesign corporate mentor**: An individual from the sponsoring company, who serves as the technical point of contact for the team, represents the company’s interests, assists the team as they work on the project, and facilitates technology transfer during the project.
- **UTDesign course coordinator**: The department faculty member listed as the instructor of record for the senior design course. The course coordinator oversees all activities, including instruction, posts final grades, and also frequently serves as the department coordinator.

### The Role of the Corporate Mentor

A corporate mentor is a representative from the sponsoring company who provides the expertise and is the point of contact for the project from the industry side.

The role of the corporate mentor is very important in the learning process of our students and the success of the sponsored project. In order to help the team achieve success, the corporate mentor needs to:

- Mentor the team throughout the project so students can get a corporate experience.
- Mentor the students with new technology used in their company.
- Guide the team to meet benchmarks.
- Foster teamwork.
- Foster high quality communication and professionalism.
Expectations of the Corporate Mentor

As a corporate mentor you can expect to spend an average of one hour per week working with your team and another half hour to an hour for support/emails. Have in mind that each phase of a project may require more or less supervision than another.

Some of the tasks expected are listed below:

- **Provide a clear description of the project, with expectations and goals for the team**
  Students will contact the corporate mentor to set up a kick-off meeting soon after the project has been assigned. This is an important meeting as it is the first opportunity for the team to gather information about the project background, requirements, and specifications. The corporate mentor should be ready to provide the team with the project goals and initial requirements and define expectations. Work with the team to negotiate and approve a final project specification.

- **Hold regular team meetings**
  During the course of the project, the corporate mentor should meet regularly with the team. Weekly meetings are recommended, especially at the beginning of the project. Experience shows that meeting with the team on an as-needed basis or waiting on the team to initiate meetings are not good strategies.

- **Regularly check the progress of the project**
  The corporate mentor should monitor the progress of the project. It helps to ask for a weekly status reports. During these meetings provide students with feedback, suggestions for improvement, and help them manage schedule, budget, etc.

- **Maintain open communication with faculty advisor.**
  The faculty advisor is the primary university point of contact to address any issue related to the project. Maintaining open lines of communication throughout the project with the faculty advisor establishes a good foundation for a successful project outcome. Keep the faculty advisor informed about any major change in the project or any problem with the team.

- **Provide guidance while writing reports and preparing presentations**
  Written and oral communications are emphasized in this course. As part of the course deliverables, the team must write a series of reports and give at least one presentation. The team will benefit from industrial feedback.

- **Develop an effective team.**
  The corporate mentor should engage students to work effectively as a team by encouraging them to share their work in a manner that takes advantage of individual strengths, skills, and interests. Sometimes teams need help managing their schedule and workload.

- **Participate in assessments.**
  Corporate mentors will be asked to provide input regarding the team performance and a general
assessment of the capstone program. Feedback will be collected through a survey at the end of each semester.

**Project Schedule**

The following flow diagram is a good representation of the course deliverables.

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**Schedule of Deliverables for Engineering Projects**

*Deliverables*
- **Internal**: for class
- **External**: for class and sponsor

**Senior Design I**
- Concept Generation
- Problem Scoping

**Senior Design II**
- Solution Realization

**Customer Problem Statement and Specification**
- 1. Define Problem
- 2. Create Design Concepts
- 3. Design Solution
- 4. Build Prototype
- 5. Validate Design
- 6. Implement Design

**Project Definition**
- Preliminary Design Review
- Project Plan
- Critical Design Review
- Detailed Design Report
- Formal Design Presentation
- Test Plan
- Mandatory First Prototype
- EXPO
- Final Project Report

* Each department follows schedule per course syllabus

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**Tips for Success**

To succeed as a mentor and in the project, here are some suggestions that might help:

- If possible, have successful and experienced mentor give training to new mentors.
- Communicate regularly with the team and if necessary with the faculty advisor.
- Be available throughout the project.
- Set clear and achievable goals.
- Be realistic of what a team of 3-5 students can do.
- Scope expectations to 480 hours/team per semester.
- Provide the students with tools necessary to succeed.
- Demand constant professionalism and high performance from the team.
- Contact the UTDesign coordinator with any question, problem, or suggestion.

We hope these guidelines will help you understand your role as a corporate mentor and succeed as such. We look forward to working with you and are open to any suggestions to improve the corporate guidelines.