

2008-9 Senior Design Clinic Overview

University of St Thomas School of Engineering



Thank you for your interest in providing a potential project for the University of St Thomas School of Engineering Senior Design Clinic. Outlined below is some useful information regarding the program.

Overall Program:

- During their senior year, undergraduate engineering students are required to take a two semester Senior Design Clinic
- For the 2008-2009 academic year we will have approximately 50 graduating seniors, about 20 electrical engineers and the remaining mechanical engineers.
- The students will be assigned to projects in teams of approximately 3 to 5, with the mix of EE and ME dependent on the project content.
- During the fall semester students are expected to complete a detailed customer requirements document, generate concepts, select a concept, and complete a detailed design review for the selected concept.
- During the spring semester students will complete prototypes and necessary testing to demonstrate proof of concept.
- Sponsor coordinators will be expected to participate in 3 to 4 formal design reviews

Funding and Time:

- The University supplies faculty advisors with relevant expertise, and students at no charge.
- Sponsoring companies provide a knowledgeable coordinator from their organization, access to necessary staff, and cover any out of pocket expenses for the project.
- An Expense Agreement will be signed by both parties covering this arrangement.

Intellectual Property and Confidentiality:

- The University does not expect or require any invention ownership or royalties. Any inventions/patents resulting from the project are the sole property of the sponsor.

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- A Letter of Understanding will be signed by both parties covering these provisions

Project Submission and Assignment:

- Interested sponsors should submit a 1-2 page proposal using the provided format.
- Sponsors should select projects that are not on “the critical path” for their businesses, and that fit the timeline of completing proof of concept by May 2009.
- The faculty coordinator will provide feedback on scope, etc. to help refine the proposals as necessary.
- Sponsors will present (“pitch”) the project opportunities to the students during the first week of the Fall 2008 semester
- Students will then make a first and second choice for preferred projects
- The faculty coordinator will do a final “match” of students to projects and assign appropriate faculty advisors the second week of the semester.

Timing:

- Project submissions should be made by August 1, 2008.
- Sponsors will make presentations to the students to “sell” their projects during the week of September 2, 2008. It is very important that the presenter is the sponsor’s champion/ coordinator and very familiar with the project so that their enthusiasm is communicated well to the students.
- Teams will be assigned for selected projects the following week.
- Throughout the Fall and Spring semesters students will have regular classroom hours allocated to meet as a group, meet with faculty advisors, and conduct meetings with sponsor’s staff as needed. It is expected that design reviews will take place during these hours as well.
- Conceptual design presentations will take place in October. Sponsors will serve as reviewers.
- Critical design reviews will take place in early December. Sponsors will serve as reviewers.
- Two spring semester design reviews will be held in mid-March and Mid-May.

Contact:

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Format for Project Proposal

This is a suggested outline. The completed proposal should be one or two pages (maximum) long.

Project Name

Background of sponsoring company

Type of products/ size of company/ location of company

Contact Information

Name and location of the sponsoring engineer the students would work with

Project Summary

An overview of the project. Include your best estimate for number of EE and ME expected so we can understand your emphasis and intent.

Specific Requirements

Size, weight, performance, cost targets

Safety, regulatory requirements

Project completion date (Project lasts 2 semesters)

Sponsor Resources

Problem definition

Technical expertise and model shop

Engineering and technical personnel

Marketing

Specific Deliverables

CAD Drawings/ lab notebooks/ test results/ prototypes, etc

Initial thoughts

Some ideas about the project challenges/ importance of project.

Miscellaneous Information

Information not included above that would be helpful in understanding the project.