

## **Senior Design – Proposed Project Information Form**

**Company Name:**

**Date of Proposal:**

**Proposed academic term for project:**

**Company Contact: name(s), position, address, email and phone:**

**Proposed Project Title:**

### **Project Details:**

Indicate Area(s) of student specialization most suited to the project (indicate all that apply)

Ceramics

Metals

Polymers

Design Relevance (choose one)

- ☐ Direct Design Project – the project involves direct design of a component, system, or process. The project will result in specification of various design parameters, as supported by appropriate engineering work (calculations, models, data, etc.).
- ☐ Design Support Project – the project involves engineering work that constitutes part of a larger design effort that is related to a specific component, system, or process. The project will result in knowledge, data, and/or specifications that will be used to inform, guide, constrain, or validate aspects of the larger design effort.

Name and describe the system, component, or process being designed. If this is a design support project, explain how this project relates to (and supports) the other design efforts.

List the “minimum acceptable” and “target” performance characteristics for the component, system, or process.

Provide a list of critical design parameters to be specified or evaluated with respect to upper and lower limits.

Describe the design constraints related to the project:

Provide context for the project and explain the need for working on the project:

List the goals and/or expectations for the design team. Include any specific deliverables here:

List any specialized resources needed for project (testing equipment, analysis software, technical background etc.):

Describe any safety concerns/considerations and related special requirements that may arise during the execution of the project:

List the resources to be provided by the sponsor (such as samples, supplies, equipment, site visits, company personnel visiting ISU etc.):

Suggested a faculty mentor (indicate if any particular faculty member from MSE would be a suitable mentor, due to ongoing or past collaboration or domain expertise):

**Requested Financial Commitment from Company:** The company is asked to pay \$2,500 to be billed through Iowa State Accounts Receivable when Sponsor Acknowledge Form is agreed and signed. Any costs over \$2,500 would have to be approved first by the company via written documentation with Senior Design project team and Instructor. The amount over \$2,500 will be billed at the end of the semester.

Indicate agreement with signature:

List anything you think may be important for the student teams or instructors to know about the project that has not be included in any of the previous sections:

## **Senior Design – Course structure and timeline**

This is a two-semester course and is offered every semester. Students can start their senior design projects towards the end of semester I and work on it predominantly during semester II.

### **Schedule for a fall start:**

1. MatE 4130 starts (August): Students are assigned a project by late-October.
2. The first progress report is due in early December at the end of the semester.
3. MatE 4140 starts (January): A midterm report is due in early March.
4. Projects end with a final written and oral report during the first week of May. The final reports will be shared with the sponsors at the end of the project.

### **Schedule for a spring start:**

1. MatE 4130 starts (January): Students are assigned a project by mid-March.
2. The first progress report is due in May at the end of the semester.
3. Students will take the summer months off (May-August).
4. MatE 4140 starts (August): A midterm report will be given in mid-October.
5. Projects end with a final written and oral report during the second week of December. The final reports will be shared with the sponsors at the end of the project.

Should the sponsors require it, we can execute an NDA and IP agreements once the project is selected and teams are assigned.

Please do not hesitate to contact me if you have any questions.

Thank you,

Shraddha Vachhani,

[vachhani@iastate.edu](mailto:vachhani@iastate.edu), 515-294-1230