

SIE 498A -- Senior Capstone

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Office Hours: MWF 10AM – 12PM or by appointment.

Designation: Required Course in Engineering Management

Catalog Description: Students will use material taught in the SIE curriculum to address a customer's needs and help a real-world client design or improve a system. Students will use a system design process, discover system requirements, identify project and technical risks, and develop a project plan and schedule. Students will communicate orally and in writing. A series of design reviews will monitor project goals, schedule, risk and progress. 498A should be taken in the student's next to last semester.

Prerequisite: Senior Standing

Course Objectives:

The objective of the Senior Project is to utilize the knowledge and skills gained from the Engineering Management curriculum to address and solve a problem(s) of interest to industry. Industry in this context can range from the largest employers (e.g. Raytheon, Honeywell) to small companies or even individuals (e.g. UA Faculty members).

Students are expected to seek out and find an internship in industry during the SIE 498A semester. These internships do not have to be for pay because there is academic credit received for the work performed. However, it is certainly reasonable to be paid as an intern if the industry sponsor has the resources to do so. The scope of the proposed Project should be determined from discussions with the industry sponsor and should utilize knowledge, skills and tools gained from classes in the Engineering Management curriculum.

Once you have identified a potential industry sponsor and have tentatively agreed on a Senior Project, write a one to two page memo that details the company history, the evolution of the problem to be solved, the tools you will

use to effect a solution(s), and the expected deliverables (e.g. PowerPoint, Excel, Arena, Microsoft Project, etc.) that will be presented in SIE 498B. Upload this file into the Senior Project Proposal Dropbox. You will receive feedback and may be asked to resubmit the document with requested changes.

Note, you can upload as many versions of the Proposal as you wish. We will grade the last file submitted. The grade for SIE 498A will be based on the quality of the Project Concept, the overall scope of your Proposal, expected deliverables, and the written Project Proposal. No proposal will be accepted after the due date posted for the drop box.

Class schedule:

The student works independently on the project at whatever rate is needed to complete the project.