Capstone Project Descriptions

Learning Outcomes
• Explain requirements for a good capstone project to a prospective sponsor.
• Explain rationale used in design team assignments to your client.
• Match top four project options to personal interests/abilities.

Resources
Sponsor Information on Capstone Web Page
Project Line-Up Summary (Number, Company, Name, Disciplines)
Write-ups Taped to Walls in Design Suite

Facilitation Plan

Preparation: Review list of project Options. (TM 15)

Class Session:
• Inventory list of attributes of good projects and process for team selection. (Steve – 5 min)
• Sept 8th - 5 minute overviews (goal = 14)
• Sept 13th – 5 minute overviews (goal = 6); ME 426 Showcase 4:15-5:00 in design suite

Follow-up:
1. Browse project write-ups taped to walls in design suite. Question project groups during the ME 426 Showcase on Sept 13th. Answer the following about your top choices.
   a) How is this choice related to your personal background, design philosophy, and professional goals?
   b) What special skills does each project require and what unique opportunities for professional development does this project offer?
   c) What insights about the technologies underlying each project were you able to gain through an internet search?
   d) What roles and responsibilities are necessary for quality team performance on this project? How do you see yourself fulfilling these?

2. By the end of class on Sept 15th, (a) submit a cover page with personal picture and top four project choices by number as well as name, (b) updated resume, and (c) logbook.
REQUIREMENTS FOR A CAPSTONE PROJECT

Results in a stand-alone, electromechanical hardware product that meets a specific client need.

Uses existing, proven technologies.

Can be accomplished by a team of 4-6 students with less than 1000 person-hours of effort between over an 8 month period.

Can be fabricated with UI design resources.

Has an external customer with time and interest in supplying information and giving feedback to student teams.

Provides funding between $4-8k with healthy budgets for purchased equipment, travel, and contribution to UI design infrastructure upkeep.
CONSIDERATIONS IN FORMING DESIGN TEAMS

Personal Data
- Goals and attitudes
- Commitment to capstone contract
- Interest in and analysis of project options

Academic Performance
- Work Ethic
- Time Management
- Decision-Making
- Technical Electives

Special Skills
- Shop Experience
- Lab Experience
- CAD Experience
- Internship Experience