POTENTIAL SENIOR PROJECTS

The following are mostly meant to provide ideas for senior projects. If something sounds interesting, please discuss with the appropriate faculty.

Dr. Lulay
Design, fabricate and develop an economical fatigue test system. This is a very “machine design” like project that would require about 3 or 4 seniors for both ME481 and 482. Wheel chairs for competitive events (off-road or road racing, other sports)

These have **not** been approved by the ME481/482 Faculty. Please discuss any ideas with them to ensure it will satisfy the course requirements. While some of the following competitions are not really helpful ideas for projects, they can be a valuable activity for students. Participating in competitions help give you exposure, they give you something to talk about in an interview and to include in your resume, and they are fun. Some have monetary incentives.

**ASME Competitions** (http://www.asme.org)

**Potential Senior Projects:**
Human Powered Vehicle Competition (HPV)
HP Submarine Competition
RSC- Controlled Baja Car Contest
RSC- Student Design Contest. These change every year and sometimes are very good senior projects, some times not so).

**Misc – non-senior design project competitions that should be taken advantage of (see asme.org):**
"Old Guard" Oral Competition (any senior project works well for this)*
"Old Guard" Poster Competition*
Continuity Contest
Web Poster Contest
*by competing in either the old guard oral and poster competitions your first years ASME professional dues are waived. You don’t even have to do well – but we hope you do.

**SAE Competitions** (www.sae.org):
Baja (requires about 6 dedicated seniors)
Aero-Design
Supermilage: The Supermileage® competition provides engineering and technology students with a challenging design project that involves the development and construction of a single-person, fuel-efficient vehicle. Vehicles are powered by a small four-cycle engine. Students have the opportunity to set a world fuel economy record and increase public awareness of fuel economy. Engines are donated by Briggs & Stratton.
Other Ideas
U of P’s Center for Entrepreneurship has a $100K Challenge to award funds for potential business startups. See Dr. Jim Male or Dr. Khan for more information. The School of Engineering has had several successful projects for this – most team up with a business major. ASME also has “new products” competitions (ISHOW – Innovation Showcase).

ASME Presentations/Competitions. In addition to the specific competitions (such as the Human Powered Vehicle) there are competitions suitable for any project. The Old Guard Oral Competition, Web Page Competition, and Poster Competition are excellent events that students SHOULD TAKE ADVANTAGE of! Almost any project can be used for these competitions. They provide students exposure to practicing professionals, they are an excellent way to meet other people and to practice your communication skills. They also look good on a resume.

Computer Science and Electrical Engineering – they often are interested in robotic projects. If you want to team up with EE you need to form teams before May of your junior year and discuss with ME and EE faculty.