September 10, 2014

**Senior Project Opportunity – Open Project with Todd Coburn**

**Background**

Mechanical Engineering is a broad and diverse field, with many niches of expertise and opportunity. Cal Poly’s charter, amongst the California University system, is to focus on “Learning by Doing”. As such, we attract gifted students with diverse backgrounds and abilities. In my short time teaching at Cal Poly, I have found many students with outstanding giftedness and interest in a variety of areas. The goal of this senior project opportunity is to unleash student innovation towards developing and building a product in an area of their choice and giftedness.

**Opportunity**

Students with their own topic of interest are encouraged to pursue that as their senior project. The process for this with Todd Coburn as advisor is as follows:

- Determine project of choice.
- Draft proposal with the following elements.
  - Topic
  - Objective
  - Partners – Identify all partners involved.
  - Schedule/Timeline – Include all major deliverables & be sure to identify quarters when EGR 481 & EGR 482 will be taken for each student involved.
  - Challenges/Obstacles
  - Preliminary assessment of achievability of objectives.
  - Proof of completing all 300-level coursework for each student.
- Submit to Todd Coburn & schedule appointment for discussion & potential signature.

**Expectations**

Students with their own topic are expected to have the initiative and drive to complete it. As advisor, I will require periodic meetings to discuss progress, and will provide insight, suggestions, & occasional redirection as needed. However, the responsibility to break through obstacles and to solve technical challenges is the student’s, and a successful project completion will require students to successfully navigate through the realm of innovative design on their own, with mere support and suggestions from faculty.

Each Open Topic Project will be expected to provide (1) A completed, built product, which could be a machine, device, vehicle, or other item; (2) A quality report describing the project, the objectives, challenges, overcoming of obstacles, and results: and (3) A presentation, where each member of the team will participate in presenting the project, product, and results.

**Questions**

Forward questions to the undersigned.

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