ENGR 597 Description and Instructions to Enroll

In order to enroll for this class you need to secure a faculty advisor to help guide you in your project. Please see below for guidance on course expectations and what to begin thinking about when choosing a project topic and/or advisor.

Once you identify your advisor please email sys_engr_info@engr.colostate.edu noting who your advisor is and for what semester you would like to enroll. Please Cc the person who will be advising you.

Upon receipt of this email instructions will be sent to you regarding the registration process.

These questions will help inform and direct your initial contact with faculty member(s)

1. What is your professional and/or academic background/experience?

2. Are there specific projects (in school or professionally) you worked on that might be a good fit for a Systems Engineering analysis i.e. Capstone project?

3. What “systems” are you interested in – please be as specific as possible?

4. Where do you see a need for Systems Engineering? (subject areas within your profession, specific projects, a specific community etc.)
   a. How do you see Systems Engineering applying to this need?

5. Do you plan on working independently or as part of a group? If a group, who else is part of your team?

6. What faculty member (see http://www.engr.colostate.edu/se/people/associated-faculty/) closely aligns with your specific interests and what faculty member would you like to work with on this project?

Please contact professors directly with information about your intended project to gauge their interest in assisting you.

ENGR 597 – Systems Engineering Project

Course Description: This course requires the student to complete a systems engineering project, with a formal report on the results. A broad scope of projects may be considered, including design in hardware and/or software, a virtual project, or an analysis/feasibility
study. The project should consider the full system life cycle, and take a systems engineering approach to analysis and/or design.

**Student Learning Objective:** Successful students will develop an understanding of the requirements of a successful systems engineering project, including needs analysis and a life-cycle based approach. They will also broaden their perspective with the real-world experience of taking a systems engineering project from an initial concept through to completion, including analysis/design/testing and formal reporting of the results.

**ENGR 597 Project Report Instructions**

**Report:** The write up should be clear, concise, and complete. You should produce a formal document that includes at least the following:

- **Title Page**
  Include project title, author, and report date.

- **Table of Contents**

- **Abstract**

- **Project Description**
  Include a definition of the project and a description of its objectives, motivation, market, customer, etc.

- **Overview of Proposed Design Process**
  Give an overview of the design process that is undertaken for your project. This may include elements from control, optimization etc. as required.

- **Economic Analysis and Decision Making**
  Describe any decision making processes that are used in your project, including analysis of alternatives and economics.

- **System Test and Evaluation**
  Describe the plan for testing and evaluating the product.

- **Summary**