SYSTEMS ENGINEERING

ENGR 530
Overview of Systems Engineering Processes

BENEFITS

Systems Engineering is an interdisciplinary approach and means to enable realization of successful systems. By focusing on what the customer needs, how it should function, defining the requirements, and then design synthesis, validation, and verification, real solutions to complex problems can impact every type of system.

2019 Spring Semester Location: CSU Campus, Fort Collins
Clark A 206
Date: 1/22 — 5/14/2019 Tuesday 5:15—8 pm
Last date for registration: 27 January 2019

2019 Fall Semester Location: United Launch Alliance
7630 South Chester Street, Einstein Lab
Date: 8/27 — 12/17 2019   Tuesday 5:15—8 pm
Last date for registration: TBD

https://www.online.colostate.edu/courses/ENGR/ENGR530.dot

COURSE OBJECTIVES

Explore real-world problems to develop a understanding of systems engineering life cycle processes and analytical techniques. Each student will complete a project based on a system or enterprise of her or his choice! Successful students will learn to:

- Develop analytical skills and optimization methods
- Broaden perspectives working with a systems through all phases

- Analyze architecture issues associated with real-time systems, information assurance , networked enterprises, and virtual and physical architecture prototypes
- Learn models and tools for alternatives analysis and decision making
- Explore queuing theory and analysis
- Use detail design for reliability, maintainability, logistics, affordability

INSTRUCTOR BIO

Dr. James Cale (Spring Semester) is an Associate Professor in System Engineering at Colorado State University in Fort Collins, CO. His research focuses on modeling, control and design optimization of energy sources and systems. His background and interests are in the areas of energy conversion, power electronics, finite-inertia power systems. Computational and applied electromagnetics, biologically-inspired optimization methods, microgrids, power hardware-in-the-loop, and machine learning algorithms.

Bill Wood (Fall Semester) has a 45 year background in the US Air Force and Aerospace industry, highlighted by work on a number of major classified and unclassified systems for the US Government. His technical foundation is in the areas of Astrodynamics and Software while his practical applications ranged from satellite constellation operations to large scale air combat control integration.

GRADUATE SCHOOL

Colorado State University®