SYSE 530: Overview of Systems Engineering Processes

Syllabus
Spring Semester, 2022

Instructor:	Dr. James Cale	TA:	Pranav Damale
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Meeting Location and Time

- Physical Location: Behavioral Sciences (BHSCI) 103, Fort Collins campus
  - Lectures will be streamed live over Zoom and recorded for later viewing; the Zoom link will be provided through Canvas at the beginning of the course.
- Time: Monday evenings, 5:15–8:00 PM (MST)

Prerequisites[1]

- Working knowledge of undergraduate communications principles and statistics
  - Can be fulfilled by: ECE 303/STAT 303 (Introduction to Communications Principles) or STAT 315 (Statistics for Engineers and Scientists)
- Undergraduate engineering mathematics, including calculus and linear algebra

Required Text

B. Blanchard and W. Fabrycky, *Systems Engineering and Analysis, 5th ed.,*Upper Saddle River, NJ: Pearson Hall, 2011. ISBN: 9780132217354.

Additional technical content for this course will provided via the instructor's lecture notes, displayed and/or written during lecture.

Other Learning Materials

Additional technical content for this course will be provided via the instructor's lecture notes, displayed and/or written during lecture.

Communication Policy

Questions on the course material can usually be answered most quickly via Canvas messaging or email; this is the preferred method when possible. The instructor or TA will respond to your inquiry within 36 hours (but typically sooner). For more in-depth questions, you may choose to schedule a Zoom meeting with the instructor or TA. Important: this is a *graduate-level course*; questions/office hours will not be used to "walk you through" assignments. Office hours are for additional clarification of course content if needed.

[1] Contact the instructor if you have questions on the prerequisites or need approval based on other coursework.

Grading Weights

Quizzes:	15%
Mid-term Exam:	40%
Project Presentation Delivery:	10%
Project Slides and Calculations:	35%

Quizzes

Quizzes over the lecture material will be posted within Canvas and will consist of shorter analytical problems with multiple-choice answers. Quizzes will generally be open for one week (details will be provided in the Quiz assignment announcements). No late quiz solutions will be accepted.

Mid-term Exam

There will be a mid-term exam in this course, which will be released on Canvas on Sunday, **March 6, 2022,** before midnight. The exam will be "open-book, open notes" and you will have one week to submit your solution. The mid-term exam problems will be based on the material discussed in lecture, the textbook, and quizzes. No make-up exams will be given, except possibly under severe extenuating circumstances. If unable to make a deadline or comply with the time constraint for any reason, contact the instructor at least five days beforehand.

Final Project

This course includes a final project, which demonstrates your knowledge of the class material on an example (real or imaginary) project. Final projects will be done in groups. The deliverables for the project are: a slide presentation of your summarized content, documentation of your supporting calculations, and delivery of your presentation to the class. (Detailed project instructions will be provided after the mid-term). Class presentations will be held during normal class time on April 2, 2022 and April 9, 2022.

All final project presentations will be due by 11:59 PM on April 1, 2022 regardless of which day your team is presenting. No late presentations or edits to your presentation will be accepted after the due date.

Office Hours[2,3]

- Office hours for the instructor or TA can be scheduled by appointment upon the student's request, and are held via Zoom teleconference only.
- It is preferred that you contact the TA to seek an answer to your question first; failing that, contact the instructor.

[2]Messaging through Canvas or email is typically the best (fastest) way to obtain answers to most questions
[3]There is a one hour per week limit on Zoom office hours per student.