SYSE 530: Overview of Systems Engineering Processes

Syllabus
Spring Semester, 2022

Instructor: Dr. James Cale
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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

• 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


Additional technical content for this course will provide 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.

1Contact 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 Hours2,3

- 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.

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