Systems Analysis & Design

Course Description

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2025-III





Outline

- 1 You don't know who I am
- 2 Course Overview
- Syllabus
- 4 Grading & Rules
- 6 Bibliography





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Overview

This course is designed to introduce indergraduate students to foundations of systems analysis and design and a lot of multiple computer science paradigms. This is a course focused on thinking and problem solving.

Classes will consist of lectures, **discussions**, and producal examples. Also you must take some readings from *theory of systems*. In addition, there will be a **semester-long project**, as well as one **final course test**, four **workshops**, and six additional **assignments**.





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Goals

The main goal of this course is to provide undergraduate students with different **models concepts**, and **tools** for understanding and solving problems using **analysis systems** and **design** based on projects requirements.

At the end of this course you should be able to **create** a full **systems engineering solution** with a good level of **quality** metrics. Also, you should be able to **design** solutions in an **agnostic** way.





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Prerequisites

This is a basic course, so you must have some knowledge in:

- **Programming** in Python or Java.
- Draw diagrams to represent anything.

Systems Analysis & Design

• Use of IDEs like VS Code, Eclipse, or PyCharm.





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Syllabus I

Tepic	Time
Systems Thinking	2 sessions
Systems Engineering	3 sessions
Systems Analysis	4 sessions
Systems Design	4 sessions
Robust System Design	3 sessions
Projects Catch-Up	2 sessions
	Systems Thinking Systems Engineering Systems Analysis Systems Design Robust System Design

Table: Schedule for Period I

Systems Analysis & Design





Syllabus II

Period	Topic	Time
Period II	General Systems Theory Paradigms	3 sessions
	Systems Projects Management	3/sessions
	Systems Simulation	5 sessions
	Final Test	1 session
Period III	Project Dissertations	2 sessions

Table: Schedule for Period II & III

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Grades Percentages

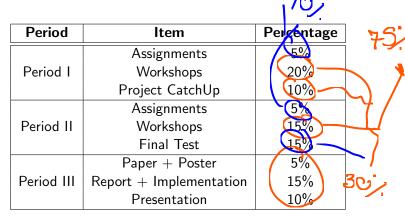


Table: Systems Analysis & Design — Grades Distribution





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- Always be respectful to your classmates and to me. You must be kind to everyone inside (and outside) the classroom.
- There is no best programming language, tool, or technology. There
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- You must be honest with your work. If you don't know something just ask me. I will be glad to help you.
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Recommended bibliography:

- Systems Analysis and Design, by Alan Dennis, Barbara Haley Wixom, and Roberta M. Roth.
- Systems Analysis and Design, by Kenneth E. Kendall and Julie E. Kendall.
- Systems Analysis and Design, by Scott Tilley and Harry J. Rosenblatt.
- Systems Analysis and Design, by Gary B. Shelly, Harry J. Rosenblatt, and Thomas J. Cashman.





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Thanks!

Questions?





URL: www.linkedin.com/in/casierrav

