Welcome to

Engineering Design

IDEA course Fall 2025

Tacoma, WA



Agenda

- 1. Introducing myself
- 2. Introducing yourselves
- 3. Syllabus overview & class structure
- 4. Design Activity I
- 5. Q&A

Elena Seaholm (she/her)

- SAMI c/o 2019
- U of Washington Bioengineering c/o 2023
 - Focus on nano and molecular engineering
- Researched the neuroscience of addiction, fear, and anxiety in college
 - Experience working in the lab and with animals
- Worked at a biotechnology startup in Seattle working on Alzheimer's diagnostics and therapeutics
 - ELIZA-like optimization, protein synthesis, data analysis





Class Introductions

- Name
- Pronouns
- What you're hoping to learn/experience in this course
- Something you're proud of

Syllabus & Course Overview

Lecture



Your delivery can make or break your presentation. Focus on the following techniques.

Voice modulation

Vary pitch, tone, and volume to emphasize key points. Pause strategically as silence builds anticipation.

Body language

Maintain open gestures and avoid crossing your arms. Move naturally. Step forward when making a strong point.

Non-verbal cues

Look for cues (like nodding and note-taking) that show that your audience is engaged.

Additional tips

Be confident, rehearse aloud, and show enthusiasm.

Class Structure

Sample Day



"Quick Fix"

Vary pitch, tone, and volume to emphasize key points. Pause strategically as silence builds anticipation.

Design Principle

Maintain open gestures and avoid crossing your arms.

Progress Share

Maintain open gestures and avoid crossing your arms.

Lecture

Maintain open gestures and avoid crossing your arms.

Activities & Exercises

Be confident, rehearse aloud, and show enthusiasm.

Group Work

Be confident, rehearse aloud, and show enthusiasm.

Assignments & Reminders

Maintain open gestures and avoid crossing your arms.

Please take the first 5 minutes of class to brainstorm a solution to the following problem:

"Quick Fix"

"Needs Statement"

Addtl. Info:

Class #X September X, 2025



"Design Principle"

Put design principle info here and a photo over there



Assignments

Introduction Page

"Needs Statement"

Addtl. Info:

More info on canvas



Assignments & Reminders

Assignment		Due Date
Introduction page	Write one page, double spaced, introducing yourself to me as a person, student, designer, and engineer. What motivates you? What inspires you? Include anything you'd like me to know about your learning, communication, and teamworking styles. More info on canvas.	Next Class (Sept. XX, 2025)
Review Clients	Client selection will take place in 1 week. Please review the offerings and consider your preferences.	

- Group Selection is on September XX, 2025
- In-person Final Presentations are on _____. Please put it in your calendar.



Questions?