



# NEEDFINDING SYLLABUS

## DESIGN 231 - NEEDFINDING FOR SYSTEMS CHANGE

- Winter 2025
- In-Person and Zoom Class Tuesdays 11:30pm to 1:20pm - Studio 3
- In-Person and Zoom Class Thursdays 11:30pm to 1:20pm - Studio 3
- 4 Units Letter Grade

The classic Design Research course on how ordinary people make sense, with a focus on: empathy work, re-framing complex problems, developing and testing theories of change.

### Teaching Team

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## Course Overview

In the 1970s, Stanford Engineering began to teach the Skills of Needfinding to support the practice of Product Design Innovation. Over the years, as the discipline of Design has broadened to accommodate our changing and increasingly chaotic world, Needfinding has also changed – from affecting primarily novel products and individual experiences to affecting dynamic systems and complex social narratives. Each year, we continue to hone this Graduate-level Needfinding course, adding Skills that serve more cross-disciplinary practices, demanding an even more expansive Needfinding Mindset. In the words of many past students:

*"This is a life class!"*

The main focus of Needfinding is to explore the why of human behavior in a practical, action-oriented way that is expressed through Design. We apply the tools of anthropology and ethnography (e.g. Emergent Interviewing) in order to unveil the multi-layered story systems that create “holding patterns” in a system – at every level from the deeply personal, to the familial, to the social and communal, to the epochal. Using these frames, we can begin to chart new, unexpected pathways to change, both Recognizing and Responding to human Need.

Together, we will develop 3 fundamental Needfinding Skills to uncover not just Use Needs (WHAT is the functionality to be satisfied?) but also Usability Needs (HOW should it function?) and Meaning Needs (WHY does it matter? What is the emotional story it should tell?). While it is critical to understand these Needs and the many approaches to address them (as these approaches shape organizational legacies and futures) we must also be aware of the kind of system we are operating within and possibly changing. When we can move from seeing the individual elements of a system both up close (a single user’s story) and in terms of multiple interrelated systems (patterns of meaning, culture, history and values), we position ourselves to better tackle systems change as a whole.



# Preliminary Schedule

Twice weekly 2-hour classes running from: January 7 - March 18	Weekly Class Theme
	Lecture
	<i>In Class Activity</i>
In-Person Class Tuesdays and Thursday 1:30pm to 4:20p - Studio 1	<b>Outside Work Assignment</b>

January 7

Week 1 - Introduction to Needfinding
A Bit of History, Class Logistics and Challenge Project
<i>A Roundabout Way to Bicycle Safety</i>
<b>Seeing Scroll (Individual &amp; Partners)</b>

January 14

Week 2 - Seeing The Water
The Nature of Needs and an Observation Process
<b>Bring a Thing</b>
<b>Snakes and Ladders (Partners)</b>

January 21

Week 3 - Emergent Interviewing
Holding Space,
Color and Advance
<i>Ask - Answer – Watch Part 1</i>

January 28

Week 4 - Emergent Interviewing
Reflect
Is Your Child Still In Diapers?
<i>Ask - Answer – Watch Part 2</i>

February 4

Week 5 - Frame and Reframe
Story In - Story Out
Stanford Y2E2
<b>Challenge Project Assigned (Team)</b>

February 11

Week 6 - Decoding Data
Unpacking Our Research
Developing Field Guides
<i>Decoding Story of a Truck Driver</i>

February 18

Week 7 - Developing Insights
Powers of 10
2x2s
<i>Childhood Obesity</i>

February 25

Week 8 - Systems Thinking
Creating Feedback Solutions for Feedback Systems
Shure
<b>Preliminary Challenge Project Presentation in Sections</b>

March 4

Week 9 - Emergent Prototyping
Story Out and Brainstorming with Metaphors
Displacements and Theories of Change
<i>Slow Drop</i>

March 11

Week 10 – Storytelling for Action
Telling a Good Story-out, Carrier Bag Narrative Theory
<i>The Three Bears Revisited</i>
<i>Tell it straight</i>

March 18

Week 11 - Challenge Project Presentations
<b>Final Challenge Project Presentation (Team)</b>
<b>Final Reflection - What Is Your Water?</b>

# Needfinding Team Challenge: Decoding Byzantium

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## Evaluating the Effectiveness of Stanford's Bureaucracy

This quarter's team challenge invites students to explore the intricate and expanding bureaucracy at Stanford University, a system that has doubled in size since 2000. Much like the Byzantine Empire, known for its vast and complex administrative structures, Stanford's bureaucracy influences nearly every aspect of campus life—yet its performance and values are rarely scrutinized.

This project challenges students to investigate whether this growth reflects a responsive system that excels at meeting the needs of its users or one that struggles under inefficiencies requiring constant reinforcement. Understanding how this bureaucracy functions is critical for any student who intends to navigate the university effectively, advocate for change, or bring new ideas to life.

The broader institution will be investigated through specific Focal Areas. Students will select a Focal Area and use its concrete problems to illuminate and understand the broader bureaucratic challenges at play. Potential Focal areas may include:

1. Handling Protests and Demonstrations
2. Free Speech and Academic Freedom
3. Increasing Graduate Student Wages
4. Divestment from Problematic Industries
5. Starting a New Interdisciplinary Institute
6. Accessing Emergency Student Support
7. Streamlining Green Campus Initiatives

This focused investigation will provide a concrete entry point to discuss and propose necessary changes at the institutional level. By interviewing key stakeholders, analyzing user experiences, and proposing new evaluation frameworks, students can uncover insights into the functionality and impact of Stanford's administrative empire.

- **Core Problem:**
  - Are existing bureaucratic systems effectively meeting student needs?
  - What metrics, if any, are used to evaluate the success or necessity of bureaucratic growth?
  - How do students experience the outcomes of this expanded bureaucracy—better support or more friction?
- **Opportunity:** How might we design tools, frameworks, or systems to evaluate the performance of Stanford's bureaucracy from the perspective of its primary users (students,

faculty, and staff) and create a roadmap for students to better navigate, engage with, and influence this system?

The goal is to demystify this modern "Byzantium", identify opportunity spaces to better align the system with the needs of its student community and build a practical roadmap for better engaging with and leveraging the system to achieve their goals.

## Readings

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### Introduction – Needfinding In Practice

- Teaching Team, "Framing the Craft Of Needfinding" 2024 (Canvas)
  - David Foster Wallace, "This Is Water," 2005  
<https://www.youtube.com/watch?v=DCbGM4mqEVw>
  - Horst Rittel, "Dilemmas In a General Theory of Planning" 1973 Elsevier Scientific Publishing (Canvas)
  - Robert Emerson, "Writing Ethnographic Fieldnotes" 1995 University of Chicago Press (Canvas)
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### Part 1 – Learning To See

- Carl Rogers & Gloria COUNSELLING - Part  
<https://www.youtube.com/watch?v=ZBkUqcqRChg>
  - Carl Rogers & Gloria COUNSELLING PT 2  
[https://www.youtube.com/watch?v=m30jsZx\\_Ngs](https://www.youtube.com/watch?v=m30jsZx_Ngs)
  - Carl Rogers: The Conversation Saybrook University  
<https://www.youtube.com/watch?v=vNZPVTswrhs>
  - Jerome Brunner, "Acts of Meaning", Harvard University Press 1993, Chapters 1, 2 and 3.
  - Sample Design Interview -
    - Introduction to Design Interviewing with Stanford's Michael Barry  
<https://www.youtube.com/watch?v=qimBKfnrc7M>
    - Design Interviewing with Michael Barry and Gabriel Lomelli  
<https://www.youtube.com/watch?v=3oCeTkJdjlA&t=330s>
    - Introduction to Design Interviewing Recap with Michael Barry  
<https://www.youtube.com/watch?v=5AtEuunUGrl>
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### Part 2 – Frame and Reframe

- Sara Beckman & Michael Barry, "Innovation as a Learning Process: Embedding Design Thinking", California Management Review, 2008. (Canvas)
- David Graeber, "The Utopia of Rules" Introduction and Pages 83-102, Melville House 2015 (canvas)

- James Scott, "Seeing Like a State", Introduction and Ch 3-4, Yale University Press 1999 (Canvas)
  - John Deighton, "Marketing and Seduction: Building Exchange Relationships by Managing Social Consensus", Journal of Consumer Research 1995.
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### **Part 3 – Tinkering**

- Donella Meadows, "Leverage Points - Places to Intervene in a System", Sustainability Institute 1999. (Canvas)
- Donella Meadows, "Dancing With Systems", Academy for Systems Change 2012. (Canvas)
- Ray Bradbury, "The Sound of Summer Running" 1957  
<https://the24hourtala.files.wordpress.com/2012/05/sound-of-summer-running.pdf>
- Ursula K. Le Guin, "The Carrier Bag Theory of Fiction" 1986 (Canvas)
- Ursula K. Le Guin "The Ones Who Walk Away From Omelas" 1973  
<https://shsdavisapes.pbworks.com/f/Omelas.pdf>