

# Human-Centered Systems Thinking

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## *Syllabus*

IDEO is a global design company that has been honing the methods and mindsets of design thinking for over 40 years.

In this course, you'll combine analytical tools with creative mindsets to make sense of complex systems challenges and design solutions that can shift systems.

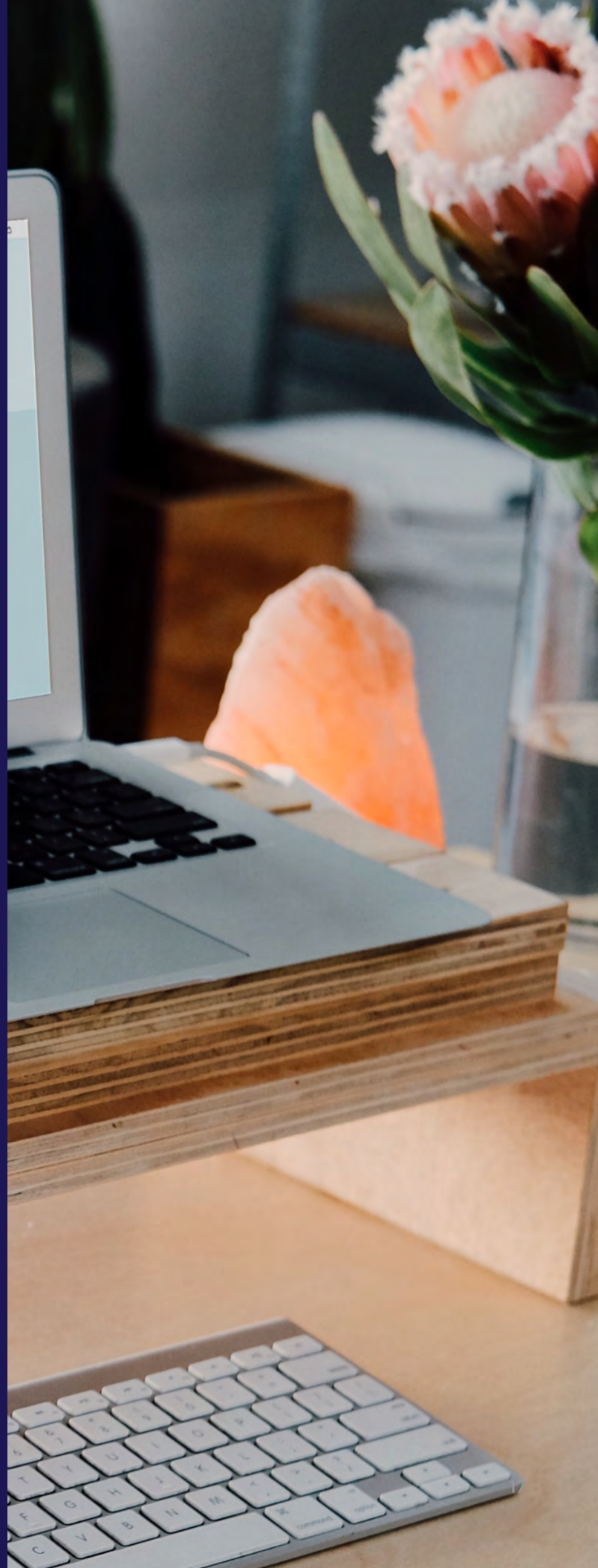
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# What's Included

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15 video lessons



Applied learning from  
IDEO practitioners



5 required assignments



Work with expert  
coaches



15 discussion questions



Downloadable work-  
book and toolkit with  
activities, assignments,  
and frameworks



6 tools and frameworks



3 activities



# Human-Centered Systems Thinking

## Course Calendar

WEEK	LESSON	DESCRIPTION	ASSIGNMENT
<b>INTRO</b> 4HRS / WEEK	<b>Overview</b>	Learn about the benefits of taking a human-centered approach to systems thinking.	Define your systems challenge
<b>LESSON 1</b> 4HRS / WEEK	<b>Visualize the System</b>	Explore mapping techniques to gain a comprehensive view of your system.	Create a systems map
<b>LESSON 2</b> 4HRS / WEEK	<b>Humanize the System</b>	Focus on the people in your system and surface insights about stakeholders.	Conduct a stakeholder interview
<b>LESSON 3</b> 4HRS / WEEK	<b>Resdesign the System</b>	Prioritize your ideas for impact and deepen your understanding of your system by testing real solutions.	Brainstorm solutions and build a small prototype
<b>CONCLUSION</b> 4HRS / WEEK	<b>Looking ahead</b>	Create feedback loops to build off your experiments and design for lasting change.	Envision the future of your system

# Meet Your Instructor

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Learn from IDEO practitioners and business leaders who've led *thousands* of projects across industries and around the globe in areas including business, technology, education, and design.



**HUMAN-CENTERED SYSTEMS THINKING**  
INSTRUCTOR

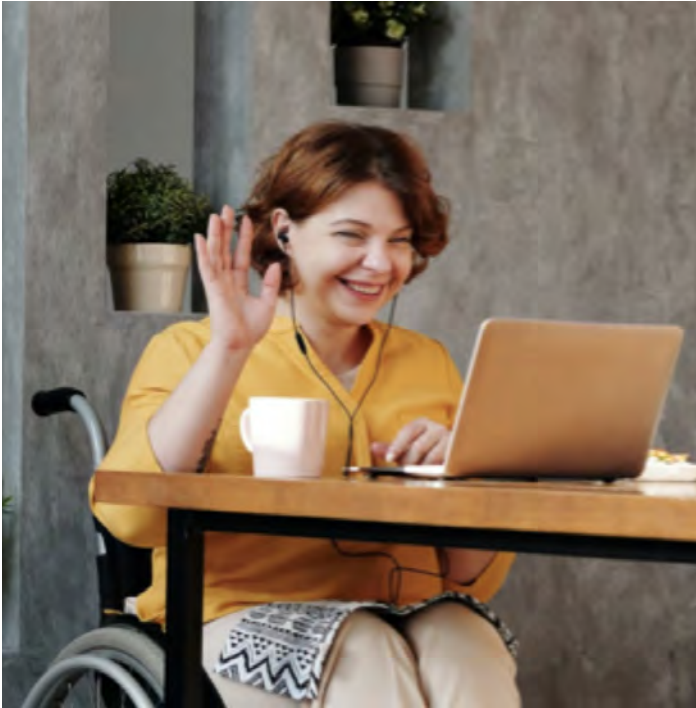
## Deirdre Cerminaro

SENIOR DIRECTOR, IDEO

Deirdre is a Senior Director and co-lead of the Systems & Strategy practice at IDEO. As a former architectural designer with a background in business and psychology, she has a knack for breaking down complex systems and finding simple levers to drive lasting change. Passionate about the power of systems design to create a more equitable future, much of her work at IDEO has focused on designing education systems—from reimagining student services at a community college in Ohio to creating programs to deliver quality, affordable education at scale in Peru. Deirdre holds a B.A. in Cognitive Science from Yale University and an MBA from the Yale School of Management. In her spare time, she can usually be found outside with her dog or off on an adventure. She's ridden her bicycle across the U.S. twice and hiked the 211-mile John Muir Trail.

## Expert Facilitators

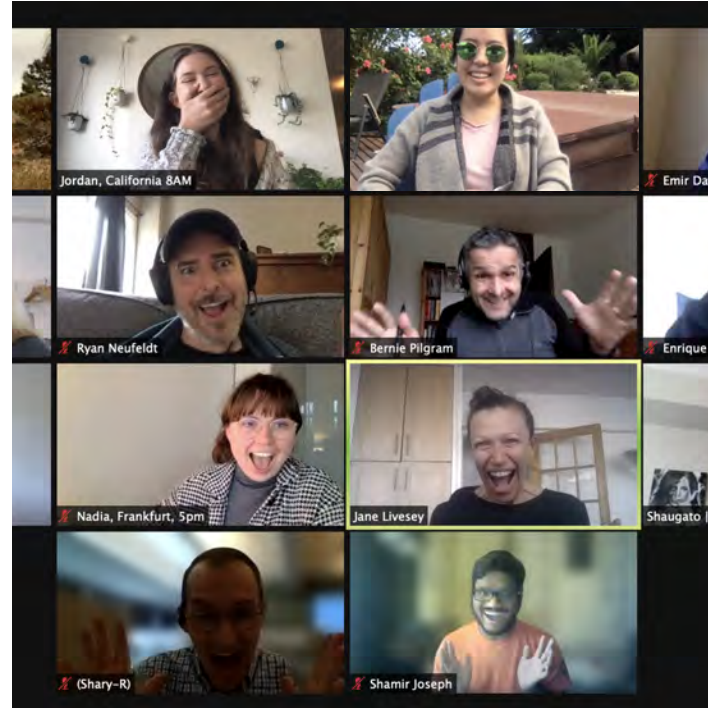
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Receive coaching from a team of design thinking practitioners with teaching and facilitation expertise who will guide discussions, foster peer connection, and provide feedback on your assignments.

## Course Community

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Learn alongside a cohort of hundreds of like-minded innovation professionals from around the world. Build your *professional network* by making valuable connections in each course.



# What others are saying

“

For me, the most exciting application of human-centered design is when it is aimed at reimagining the complex systems of our society—like education or healthcare—that are full of promise but also fraught with inequalities. This is also the space where systems design is needed the most.

“

I’ve never met a designer who is able to fuse the crafts of systems thinking and human-centered design more effectively. Deirdre effortlessly sensemakes complex systems. And perhaps most importantly, she’s a teacher and a leader who is a master at enabling others to embrace the skills and mindsets of systems design.



—SARAH ZANER

SENIOR DIRECTOR, KH MOON  
CENTER FOR A FUNCTIONING  
SOCIETY



—SEAN HEWENS

PRINCIPAL, PNEUMATIC.STUDIO





# What others are saying

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“

Public education, decentralized finance, the energy ecosystem—these are examples of systems too complex and distributed to shift through a top-down solution. Deirdre is a dynamic systems designer who shares her knack for simplifying the complex and uncovering human-centered opportunities for change.

“

“Deirdre is both process driven and intuitively insightful when it comes to systems design. She has helped us design complex systems at the service of reimagining a better learning systems for all Peruvians... she just rocks!”



—SALLY MADSEN

VP DESIGN STRATEGY,  
FIDELITY INVESTMENTS



—HERNAN CARRANZA

CHIEF INNOVATION OFFICER,  
INTERCORP



# Learning Experience



## See

Each lesson has a series of 3-5 minute videos where instructors explain the why, what, and how of a specific topic and bring to life case studies from around the globe.



## Try

Our courses provide assignments and final projects to help you try out new behaviors online and through real-world projects.



## Share

Share and discuss what you're learning with the teaching team and a global peer network to build greater understanding through virtual video calls and written discussion.



## Reflect

We've designed a variety of reflective activities into our experiences to help you make the connections from our online content to your specific work challenges.



Course

# Human-Centered Systems Thinking Outcomes & Lesson Plan

5 WEEKS  
4 HRS PER WEEK

[VIEW COURSE](#)



# Human-Centered Systems Thinking

After this course, you'll be able to...



Use mapping techniques to make sense of complex situations



Reframe problems from different perspectives to spot new opportunities for design



Uncover the needs, challenges, and motivations of the people in your system



Use frameworks to pick the most impactful ideas and solutions



Approach complex problems in a more holistic and human way to design solutions that can shift the system

# Overview

Gain an overview of the course and IDEO's approach to human-centered systems thinking

## 1 VIDEO



### Zooming In and Out

Learn about the benefits of bringing a human-centered lens to systems thinking.

## JOIN A COHORT GROUP



In-course cohort groups known as *Learning Circles* are peer-led and provide an opportunity to discuss assignments, gain inspiration, and dive deeper into course content.

## 1 ASSIGNMENT



*Define Your Systems Challenge* — Choose a real systems challenge from your work to help you practice and apply the mindsets and methods outlined in this course. Define your challenge in the form of a question. If you do not have a systems challenge at work, you can choose one as a model.

## 2 PEER FEEDBACK MOMENTS



Provide feedback on the work of at least two of your peers' assignments for each lesson.

## 1 DISCUSSION



If you're familiar with systems thinking, what are some ways that you bring this mindset to your work? If you're not, how might your work benefit from a systems view?

# Visualize the System



Explore a variety of mapping tools to make sense of complex situations, uncover the root causes of problems, and create a shared view of the system.

## 3 VIDEOS



### 1. Uncover the Connections

Network maps help you visualize the human connections in a system. Learn to make sense of the relationships and interactions between stakeholders.

### 2. Make it Visible

Process maps enable you to see the full picture so you can align on a solution. Learn how to tap into multiple perspectives to break down a complicated process.

### 3. Go Beneath the Surface

Use the Iceberg Model to uncover the layers of a complex problem. Focus on solving the root causes of a problem, not the symptoms.

## 2 RESOURCES



### 1. Three Ways to Map a System

Get guidance on how to choose the best map for your systems challenge.

### 2. Systems Map Gallery

Get inspired by examples of how others have visualized their systems.

## 3 DISCUSSIONS



1. What are some other types of maps and tools you use to make sense of complexity?
2. What strategies do you use to align different perspectives and build a shared understanding?
3. Have you noticed any patterns of behavior in your own work? What might be the underlying structures or mindsets that contribute to these behaviors?

## 1 ASSIGNMENT



*Create a Systems Map*—Choose one type of systems map based on your systems challenge and create the first iteration of it to share with your peers. Reflect on what you learned from the process.



# Humanize the System



4HRS

Discover creative techniques to surface insights about stakeholders, reframe problems from different perspectives, and spot opportunities for design.

## 3 VIDEOS



### 1. Listen to the System

Design stakeholder interviews to understand their experiences and perspectives. Bring your systems maps to life and uncover the needs, challenges, and motivations of the people impacted by your system.

### 2. The Power of Perspective

Gain 5 techniques for reframing so you can look at a system from different perspectives and unlock new ways of seeing and thinking.

### 3. Look for Leverage Points

Discover the power of leverage points—places where a small change can make an impact. Learn how to find them in your systems map so you can look beyond the obvious solution.

## 3 DISCUSSIONS



1. Think about the last system you interacted with. What was your experience and how did it influence your perspective?
2. What are techniques you like to use to help you get a new perspective on a challenging problem or situation?
3. Think back to a situation where a small shift, either in your personal or professional life, had an outsized impact. What was the change and how did it affect you and/or others?

## 1 ASSIGNMENT



*Conduct a Stakeholder Interview*— Choose one stakeholder from your systems map and conduct an in-depth interview. Then reframe your systems challenge and identify an opportunity for redesign.

# Redesign the System



Get practical tips for how to pick the most impactful ideas, experiment with the levers of design, and prototype solutions with real people.

## 4 VIDEOS



### 1. Activate the Levers of Design

Explore the 6 most common design levers and learn how they can be used to redesign systems in small but effective ways.

### 2. Prioritize for Impact

Evaluate the potential impact and feasibility of different solutions and use a simple framework for selecting the best ideas.

### 3. Experiment with the System

Take a systems approach to prototyping to test your ideas and deepen your understanding of your system.

### 4. Surface Your Learnings

A 3-step process to draw out insights from your prototype and determine next steps.

## 1 ASSIGNMENT



**Test Solutions**—Pick 1-2 ideas around each design lever and then choose 1 that is potentially high impact and easy to implement. Build a small prototype, test it out, and reflect on the outcome.

## 4 DISCUSSIONS



1. Prototyping helps us explore how a system works, feels, and responds to change. Of these three outcomes, which resonates the most with you, and why?
2. Which levers do you have the most control over in your organization? Which have you used to create positive change and improve outcomes?
3. Think about a time when you or others made a decision or implemented an idea that had unintended consequences. What was the outcome?
4. What is one small experiment you could try today that would be meaningful to learn from?

## 2 RESOURCES



### 1. Prototyping Primer

Get familiar with the process of prototyping.

### 2. Prototyping Gallery

Get inspired by examples of how others have approached prototyping.

## CONCLUSION

# Looking Ahead

Learn about the importance of creating learning loops to gather feedback and identify early signs of progress.



### 1 VIDEO



#### Systems Change by Design

In this video, we'll discuss how you can start to think about expanding your sphere of influence and shifting the larger systems beyond your organization.

### 1 DISCUSSION



After learning about the mindsets and methods of human-centered systems thinking, are there any big complex challenges that you feel inspired to take on?

### 1 ASSIGNMENT



*Envision the Future*—Imagine that you learned from your experiment, and kept iterating and experimenting over a period of time. Write a story from the future about how you were able to shift the system toward a better outcome.



“

“At its heart, human-centered systems thinking is not just a methodology—it’s a mindset. It’s a way of thinking and a way of being.”



—DEIRDRE CERMINARO

SENIOR DIRECTOR, IDEO





LEARN MORE

[\*\*www.ideo.com/systemsthinking\*\*](https://www.ideo.com/systemsthinking)

For any questions, reach out to us at  
[\*\*hello@ideo.com\*\*](mailto:hello@ideo.com).

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