



# Design Thinking, Innovation, and Human-Centered AI Summer Program

June 15<sup>th</sup> – 26<sup>th</sup> 2026



# Design Thinking, Innovation, and Human-Centered AI

Summer Program

THINK.  
CREATE.  
INNOVATE.



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## Program Overview

The Design Thinking, Innovation & Human-Centered AI Summer Program is a two-week immersive experience designed for students who want to tackle real-world challenges through creativity, collaboration, and emerging technologies.

Hosted at Rutgers University, a top U.S. public research institution, the program brings together students from around the world—including participants from India, China, South Korea, Taiwan, the United States, and more—to explore design thinking methodologies, human-centered innovation, and ethical applications of artificial intelligence.

No prior experience in design or AI is required—only curiosity, openness, and a willingness to experiment.

## Why Design Thinking + Human-Centered AI?

As AI increasingly shapes products, services, and society, innovation must remain human-centered, ethical, and inclusive. This program equips participants to:

- Design solutions grounded in empathy and real human needs
- Use AI to augment—not replace—human creativity and judgment
- Apply ethical frameworks to AI-enabled products and experiences
- Navigate periods of technological and societal change with creativity and confidence

## Learning Objectives:

Through interdisciplinary teamwork, real-world design challenges, hands-on workshops, and Makerspace prototyping, participants learn how to understand user needs, reframe complex problems, generate creative ideas, build prototypes, and test solutions iteratively. Artificial intelligence is introduced as a creative and analytical collaborator, with a strong emphasis on ethics, inclusivity, trust, and usability.

This is supported by the Rutgers Professional Science Master's (PSM) program, recognized for leadership in experiential, interdisciplinary STEM-business education.

By the end of the program, participants will be able to:

- Develop empathy-driven approaches to problem-solving

- Apply design thinking principles to complex, interdisciplinary challenges
- Conduct user research, synthesize insights, and reframe problems
- Generate and evaluate ideas through creative ideation techniques
- Build, test, and refine low- and mid-fidelity prototypes
- Strengthen creative confidence, communication, and teamwork skills
- Understand the fundamental principles of Human-Centered AI (HCAI)
- Apply ethical, inclusive, and usability-focused frameworks when designing AI-enabled experiences

## What You Will Experience

### ***Hands-On Design Practice***

Daily workshops guide students through the full design thinking lifecycle: empathize → define → ideate → prototype → test.

### ***Human-Centered AI in Action***

Participants explore how AI tools can support creativity, research, ideation, and storytelling—while critically examining bias, ethics, and trust.

### ***Makerspace & Prototyping***

Students use the Rutgers Makerspace to build physical and digital prototypes, including rapid modeling and 3D printing.

### ***Global Collaboration***

Teams are intentionally diverse, bringing together students from different countries, cultures, and academic backgrounds.

### ***Real-World Application***

Projects are grounded in real challenges, encouraging practical, portfolio-ready outcomes.

## Program Deliverables

Participants will complete the program with:

- A design-thinking project prototype or concept
- A process portfolio documenting empathy maps, journey maps, ideation artifacts, and prototype iterations
- Experience presenting ideas through storytelling and pitching
- A culminating project showcase, where teams present their final solutions to faculty, peers, and invited guests
- A Certificate of Completion from Rutgers University

## Who Should Apply?

This program is ideal for undergraduate and graduate students from any discipline—including Business Administration, Engineering, Computer Science, Life Sciences, and beyond. Innovation thrives at the intersection of fields, and no prior design or AI experience is required. All you need is curiosity and enthusiasm.

## Faculty & Guest Experts

Participants learn from Rutgers faculty and experienced practitioners in design, AI, communication, and innovation, including:



**Dr. Rupananda Misra** – Associate Teaching Professor; Human-Centered AI & design innovation



**Lars Sorensen** – Assistant Professor; Cybersecurity



**Dr. Lindy Ryan** – Assistant Professor; storytelling & data visualization



**Kathleen Cashman-Walter** – Assistant Teaching Professor; communication & leadership



**Abbe Rosenthal** – Assistant Director & Executive Coach; design thinking philosophies



**Dr. Jay Yogeshwar** – Lecturer; artificial intelligence and ethical innovation

## Program Logistics

- **Dates:** June 15–26, 2026
- **Duration:** Two weeks (full-day sessions)
- **Location:** Rutgers Science and Engineering Resource Center (SERC), New Brunswick, NJ
- **Format:** In-person, experiential learning
- **Credits:** Available in both credit (3 credits) and non-credit formats
  - Credit options are available if you stack them for a Rutgers degree
  - For international students, credits can count toward a Rutgers MBS degree
- **Cohort Size:** Small, selective cohort
- **International Participants:** Limited seats available (15–20 students)
- **Housing:** Silvers Apartments
- **Tuition:**
  - **INCLUDES:** Housing, breakfast and lunch, welcome and departure dinner, social and cultural activities\* (including trip to NYC, Princeton, etc.), prototyping materials and equipment, and airport pick-up and drop-off
  - **DOES NOT INCLUDE:** Travel & dinner

\*Extracurricular activities, including but not limited to RU Golf, are offered based on student interest and minimum enrollment requirements. The program reserves the right to modify, substitute, or cancel any extracurricular activity if sufficient enrollment is not met or due to unforeseen circumstances.

## Cultural & Social Experience

Learning extends beyond the classroom. Participants will engage in:

- A guided trip to New York City
- Visit to Thomas Edison Museum
- Social and networking activities with peers and faculty, including golf
- Informal collaboration and cultural exchange

These experiences foster global perspective, friendships, and professional connections.

## Program Coordinators

*United States & Other:* Emma Leary – [emma.leary@rutgers.edu](mailto:emma.leary@rutgers.edu)

*India:* Riddhiman Sarkar – [rsarkar@iie.org](mailto:rsarkar@iie.org)

*China & South Korea:* Yao Ge – [yaoge@global.rutgers.edu](mailto:yaoge@global.rutgers.edu)

Day	Location	Time	Theme	Key Topics & Activities
<b>Day 1</b>	Makerspace	10 am – 12 pm	Welcome Session	<ul style="list-style-type: none"> <li>- Introduction to the program</li> <li>- Overview of Design Thinking mindset and process</li> <li>- Icebreaker activity</li> </ul>
		12 pm – 1 pm	Lunch	
		1 pm – 2:30 pm	Introduction to Makerspace	<ul style="list-style-type: none"> <li>- Makerspace tools and trainings</li> </ul>
		2:30 pm – 4:30 pm	Foundations of Design Thinking & Innovation	<ul style="list-style-type: none"> <li>- Principles of human-centered innovation</li> <li>- Team formation</li> <li>- World map ice breaker</li> </ul>
		4:30 pm – 6:30 pm	Welcome Dinner	
<b>Day 2</b>	SERC 220A	10 am – 12 pm	Creativity in Empathy: Understanding Users	<ul style="list-style-type: none"> <li>- Introduction to creativity in user research</li> <li>- Interviewing, observation, empathy mapping</li> <li>- Empathy in both human and machine contexts</li> <li>- Journey mapping &amp; user personas</li> <li>- Applying ethical standards for research &amp; AI Ethics</li> </ul>
		12 – 1 pm	Lunch	
		1 pm – 2:30 pm	Hands-on activity	<ul style="list-style-type: none"> <li>- Draft interview plan</li> <li>- Create an informed consent form</li> <li>- Practice user interviews</li> </ul>
		2:30 – 4:30 pm	Tour of Campus	<ul style="list-style-type: none"> <li>- Tour the 5 Rutgers New Brunswick Campuses</li> </ul>
<b>Day 3</b>	Makerspace	10 am – 12	Field Research & User	<ul style="list-style-type: none"> <li>- Conduct interviews or field</li> </ul>

		pm	Interviews	<ul style="list-style-type: none"> <li>observations</li> <li>- Synthesize research findings</li> <li>- Identify user pain points and motivations</li> <li>- Build journey maps &amp; empathy maps</li> </ul>
		12 – 1 pm	Lunch	
		1 pm – 2 pm	Hands-on activity	- Affinity Diagram & Personas
		2 – 4:30 pm	Recreational Activity	- Rutgers Golf (weather permitting)
<b>Day 4</b>	SERC 220A	10 am – 12 pm	Define: Reframing Problems as Opportunities	<ul style="list-style-type: none"> <li>- Defining problem statements</li> <li>- Reframing exercises to unlock innovation</li> <li>- Create POV statements</li> </ul>
		12 – 1 pm	Lunch	
		1 – 2 pm	Lecture	<ul style="list-style-type: none"> <li>- Lecture by Professor Jay Yogeshwar</li> </ul> <p>Topic: Human Centered AI and Ethical Innovation</p>
		2 – 4:30 pm	Exploring Design in Art	<ul style="list-style-type: none"> <li>- Zimmerli Art Museum</li> <li>- Analyze and reflect on design traditions in art</li> </ul>
<b>Day 5</b>	SERC 220A	10 am – 12 pm	Ideate: Generating Creative Solutions	<ul style="list-style-type: none"> <li>- Divergent thinking and brainstorming techniques</li> <li>- SCAMPER, mind maps, "How Might We..."</li> <li>- Creative collaboration strategies</li> <li>- Explore AI tools as creative collaborators in ideation</li> </ul>
		12 – 1 pm	Lunch	

		1 – 2 pm	Lecture	<ul style="list-style-type: none"> <li>- Lecture by Kathleen Cashman-Walter, MBA, PCC</li> </ul> <p>Topic: Communication &amp; Leadership</p>
		2 – 4:30 pm	Hands-on Activity & Movie	<ul style="list-style-type: none"> <li>- Hands-on ideation session</li> <li>- Dot voting</li> <li>- Film as a lens for innovation and empathy</li> </ul>
<b>Day 6</b>	Silvers Apartments/ NYC	Trip to	New York City	Global Design and Innovation Excursion
<b>Day 7</b>	Rutgers Gardens	Rest Day	Optional Trip to Rutgers Gardens	
<b>Day 8</b>	Makerspace	10 am – 12 pm	Prototype: Bringing Ideas to Life	<ul style="list-style-type: none"> <li>- Overview of rapid prototyping methods</li> <li>- AI in Prototyping Tools</li> <li>- Create a low-fidelity paper or digital prototype</li> <li>- Storyboarding innovative concepts</li> </ul>
		12 – 1 pm	Lunch	
		1 – 2 pm	Lecture	<ul style="list-style-type: none"> <li>- Lecture by Lars Sorensen</li> </ul> <p>Topic: Cybersecurity and AI</p>
		2 – 4:30 pm	Hands-on activity	<ul style="list-style-type: none"> <li>- Create 3D models for 3D printing</li> </ul>
<b>Day 9</b>	SERC 220A	10 am – 12pm	User Testing – Planning	<ul style="list-style-type: none"> <li>- Principles of usability testing</li> <li>- Designing effective user tests – identify goals, tasks, metrics and success criteria</li> <li>- AI &amp; Emerging methods in Usability Testing</li> </ul>
		12 – 1 pm	Lunch	

		1 – 2 pm	Lecture	<ul style="list-style-type: none"> <li>- Lecture by Abbe Rosenthal, MA, PCC, DYL Certified Coach &amp; Facilitator</li> </ul> <p>Topic: Design Your Life</p>
		2 – 4:30 pm	Esports Games and Facility	<ul style="list-style-type: none"> <li>- Video game design and engagement</li> </ul>
<b>Day 10</b>	SERC 220A	10 am – 12 pm	User Testing – Feedback & Insights	<ul style="list-style-type: none"> <li>- Test prototypes with peers</li> <li>- Capture feedback using “I like,” “I wish,” “What if…”</li> <li>- Emotion AI Testing</li> <li>- Synthesizing user feedback</li> <li>- Applying Experience models</li> </ul>
		12 – 1 pm	Lunch	
		1 – 2 pm	Lecture	<ul style="list-style-type: none"> <li>- Lecture by Professor Lindy Ryan</li> </ul> <p>Topic: Data Storytelling</p>
		2 – 4:30 pm	Library Resources	<ul style="list-style-type: none"> <li>- Attend Rutgers library webinar</li> <li>- Debrief reflections</li> </ul>
<b>Day 11</b>	SERC 220A	10 am – 12 pm	Accessibility & Inclusive Design Testing	<ul style="list-style-type: none"> <li>- Understand accessibility principles</li> <li>- Introduction to Universal Design principles</li> <li>- Understand WCAG standard and test for accessibility</li> </ul>
		12 – 1 pm	Lunch	
		1 – 2 pm	Hands-on activity	<ul style="list-style-type: none"> <li>- Conduct Heuristic WCAG standards and test for accessibility</li> </ul>
		2 – 4:30 pm	Excursion to Regional Destination	<ul style="list-style-type: none"> <li>- Visit Thomas Edison Museum</li> </ul>
<b>Day 12</b>	SERC 220A	10 am – 12 pm	Final Presentations & Reflection	<ul style="list-style-type: none"> <li>- Team presentations to peers/stakeholders</li> </ul>

			<ul style="list-style-type: none"> <li>- Reflection on creative process and innovation mindset</li> <li>- Next steps for applying Design Thinking in real-world contexts</li> </ul>
	12 – 1 pm	Lunch	
	1 – 2 pm	Closing ceremony	<ul style="list-style-type: none"> <li>- Closing remarks and next steps</li> </ul>
	2 – 4:30 pm	Certificate Presentation + Social Networking	<ul style="list-style-type: none"> <li>- Networking</li> <li>- Final meal</li> </ul>
	4:30 pm – 6:30 pm	Departure Dinner	

# JOIN US!

Build real solutions.  
Design with empathy.  
Innovate responsibly.  
Create the future—human-centered.

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Additional questions? Please contact Emma Leary at [emma.leary@rutgers.edu](mailto:emma.leary@rutgers.edu)

