

WELCOME TO

Horizons

CREATE COLLABORATE EXCEL



Research
UtahStateUniversity



Year of
Undergraduate
Research 2025

What is Horizons ?



- Competition for USU undergraduates
- Tackle realworld challenges facing Utah and the world
- Open to all majors and levels, especially welcoming to freshmen
- Blends entrepreneurship with research



Horizons 2025 in numbers

- 100 students started, 6 teams presented
- 100% of industry judges want continued involvement
- 57% of participants had NO prior research experience
- 92% would recommend Horizons to other students
- 83% feel more confident in research abilities



Horizons 2025 in quotes

- *"I learned how to **speak with an academic mindset**. I got significantly better at reading and communicating, especially when it came to networking." - Student*
- *"The experience for the students... not only professionally, but personally. **Great preparation for life and leadership positions.**" - Judge*
- *"I have made industry and academic connections that have guided my studies... Truly, **Horizons has been transformative** in perspective, direction, capacity, and confidence." - Student*

How It Works

- **Form teams of 3 -6 students** –each team must contain a mix of majors
- **Choose a challenge** from our list of wicked problems
- **Investigate** your options in a written options appraisal
- **Develop** an innovative solution
- **Present** your ideas to expert judges
- **Win big?**
- Each team will need to produce—a two-page written options appraisal and a 10 minute presentation

Note: You don't need to do the research, just produce the idea!

Why Participate?

- Gain hands-on research experience
- Collaborate with students from different majors
- Boost your resume with real-world problem-solving experience
- Develop critical thinking and presentation skills
- Exclusive workshops and mentorship
- Post competition support
- The prizes

Prizes and Recognition

- First Prize: \$3,000 per team
- Four Runner-up Prizes: \$1,000 per team
- Exclusive Horizons swag for all winners
- Networking opportunities with local companies and changemakers

The Horizons themes



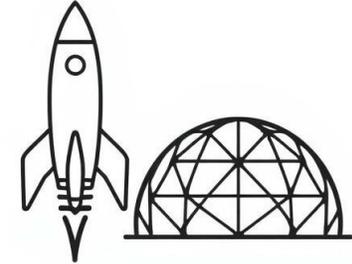
**Social Infrastructure
& Equity**



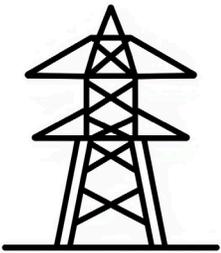
**Mental Health &
Wellbeing**



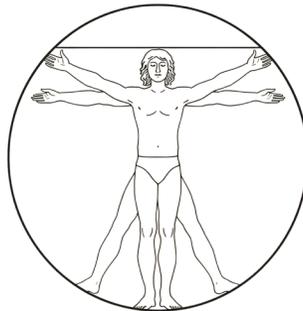
**Defense &
Intelligence**



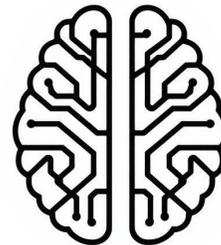
**Space & Frontier
Systems**



**Energy &
Infrastructure**



**Arts, Culture &
Identity**



**AI and
Human systems**



**Economics and the
Future of Prosperity**



**Climate &
Planetary Systems**

Example Challenge: Climate and Planetary Systems

How can the Mountain West sustainably manage water for agriculture, cities, and ecosystems amid prolonged drought and climate change — while ensuring food security?

Background:

The Western U.S. faces its worst megadrought in 1,200 years. The Great Salt Lake has lost 73% of its water, threatening ecology and air quality. Agriculture's consumptive use accounts for circa 80% of Utah's water but is essential to regional food security and rural economies. Growing cities compete for the same shrinking resource.

Example Research Directions:

- Incentive structures to shift agriculture from high -water to drought -tolerant crops
- Water rights reform and market mechanisms
- Technologies for agricultural water efficiency
- Urban planning that reduces water demand
- Balancing ecosystem needs with human consumption

Interdisciplinary Connections: Hydrology, agricultural science, economics, policy, engineering, ecology, urban planning

Utah Relevance: Great Salt Lake crisis, Bear River management, Cache Valley agriculture

Example Challenge: AI and Human Systems

What capabilities, mindsets, and knowledge should education systems prioritize when we can't predict what skills will matter in 10 -20 years—and how do we redesign learning environments to develop those capabilities?

Background:

Traditional education prepares students for predictable careers and stable knowledge. But AI is automating cognitive work, industries transform within years, and skills valuable today may be obsolete tomorrow. Education systems still largely reflect industrial -era models designed for a world that no longer exists.

Example Research Directions:

- What "meta -skills" (learning -to-learn, adaptability, critical thinking) can be taught?
- How do different countries' education systems prepare for uncertainty?
- Alternative learning models: project -based, competency-based, apprenticeships
- Historical analysis: how did education transform during previous revolutions?
- What do employers actually value beyond technical skills?

Interdisciplinary Connections: Education, psychology, history, economics, neuroscience, philosophy, policy, computer science

Why this matters: You're living this question —what should your education be preparing you for?

Our partners



College of Arts & Sciences
Center for Anticipatory Intelligence
UtahStateUniversity.

Horizons

How Work Will Be Assessed

Written Report

- Problem Understanding and Research Quality
- Innovation and Creativity
- Feasibility and Impact
- Writing Quality and Clarity
- Interdisciplinary Thinking

Team Presentation

- Clarity and Organization
- Innovation and Uniqueness of Solution
- Feasibility and Potential Impact
- Q&A and Team Dynamics
- Presentation Innovation and Engagement

Each criterion is scored on a scale of 1 -5, where 1 is poor and 5 is excellent.

Getting Started

- Register on the website starting October 21st
- Form a team (we can help you with this)
- Workshop 1 will teach you how to scope your problems
- <https://research.usu.edu/your/horizons/>
- We can help you form your team

IMPORTANT DATES

Team Registration Deadline
November 13th , 2025

Competition Period
October 2024 - March 2025

Written options appraisal due
February - 2026

Final Presentations
March - 2026

Questions?

Team-Building Activity:

Challenge Connections

- We have 9 theme stations around the room
- You'll explore themes and meet potential teammates
- Goal: Make connections and start forming teams

Activity Steps

Reflect: Consider your passion and unique skills

Explore: On three post-its write

- Your name
- Your major or special skills

Rate your interest in the challenges: up to three

Place your sticky notes on the relevant challenge tables

Go stand by your 1st choice

Meet others and start forming teams

REGISTER YOUR TEAM HERE

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