



**University of Idaho**  
College of Engineering

- LAB UPGRADES AND RENOVATIONS

# ENGINEERING INNOVATION STUDIO

*Hosted by Matthew Swenson  
Assistant Professor, Mechanical Engineering and  
Director, Interdisciplinary Capstone Design Program*

# ***OUR SENIOR DESIGN CAPSTONE PROGRAM***

Engineering students work in interdisciplinary teams on creative projects sponsored by industry partners, private individuals or U of I departments.

Courses in the program emphasize the design process and the creation of a thoughtfully engineered, tested and validated outcome or prototype.

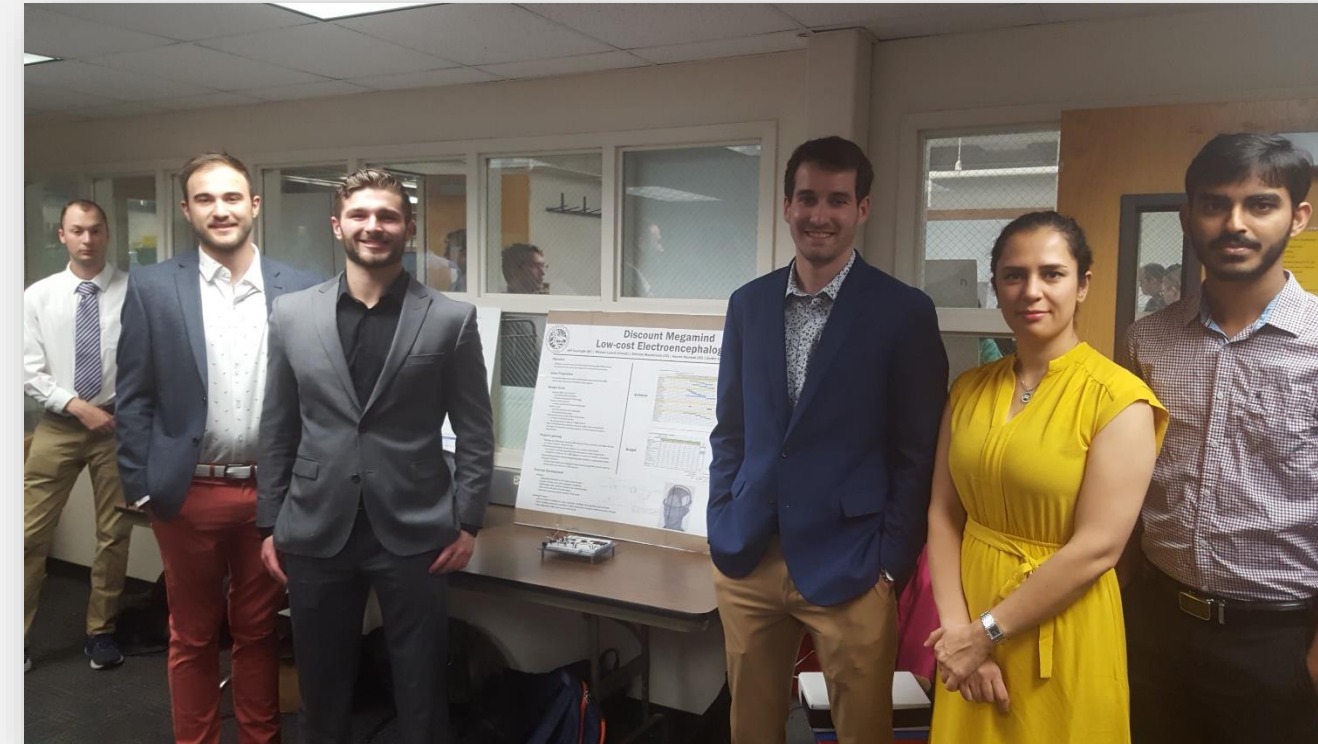
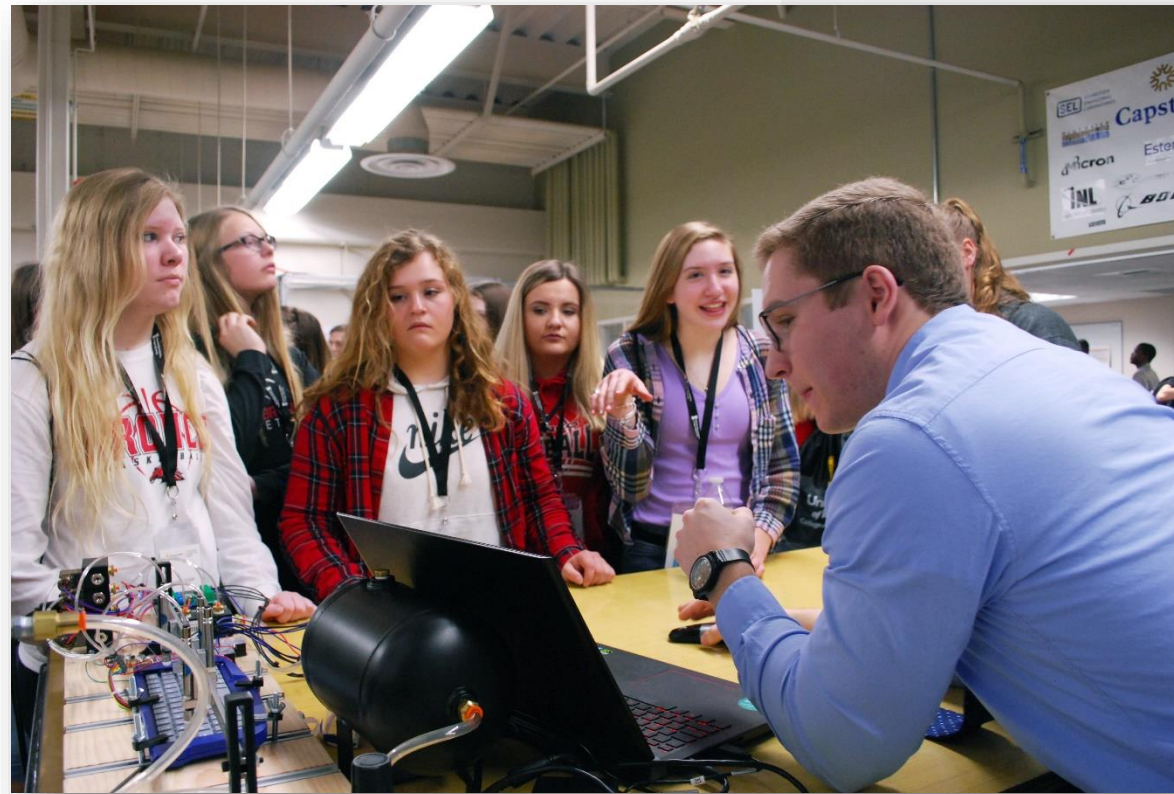
# ***TOP 7 IN THE NATION***

*for “infusing real-world  
experiences into engineering  
education” through our  
undergraduate Senior  
Capstone Design Program*

*– National Academy of  
Engineering*



# ELEVATING THE CAPSTONE EXPERIENCE

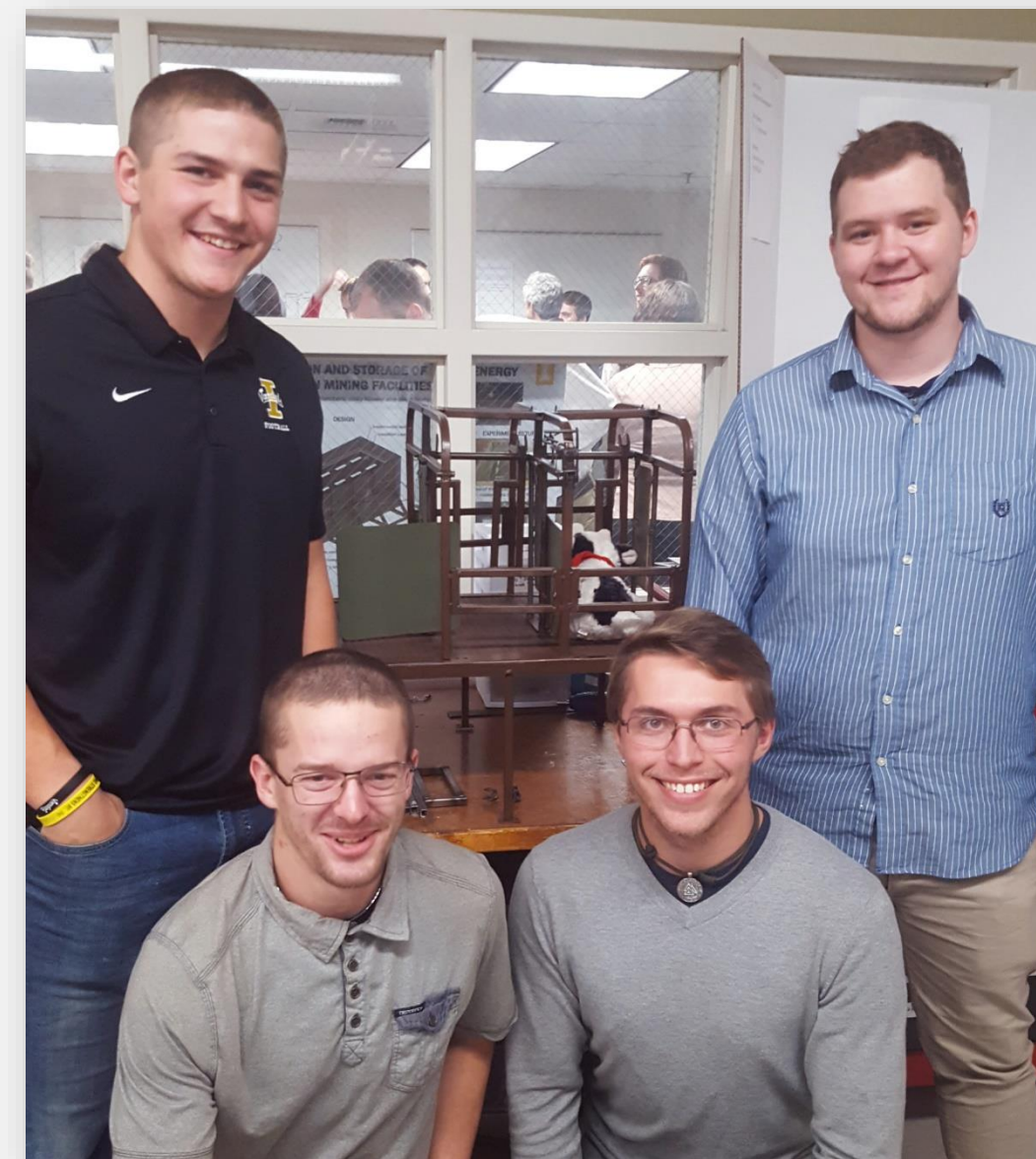
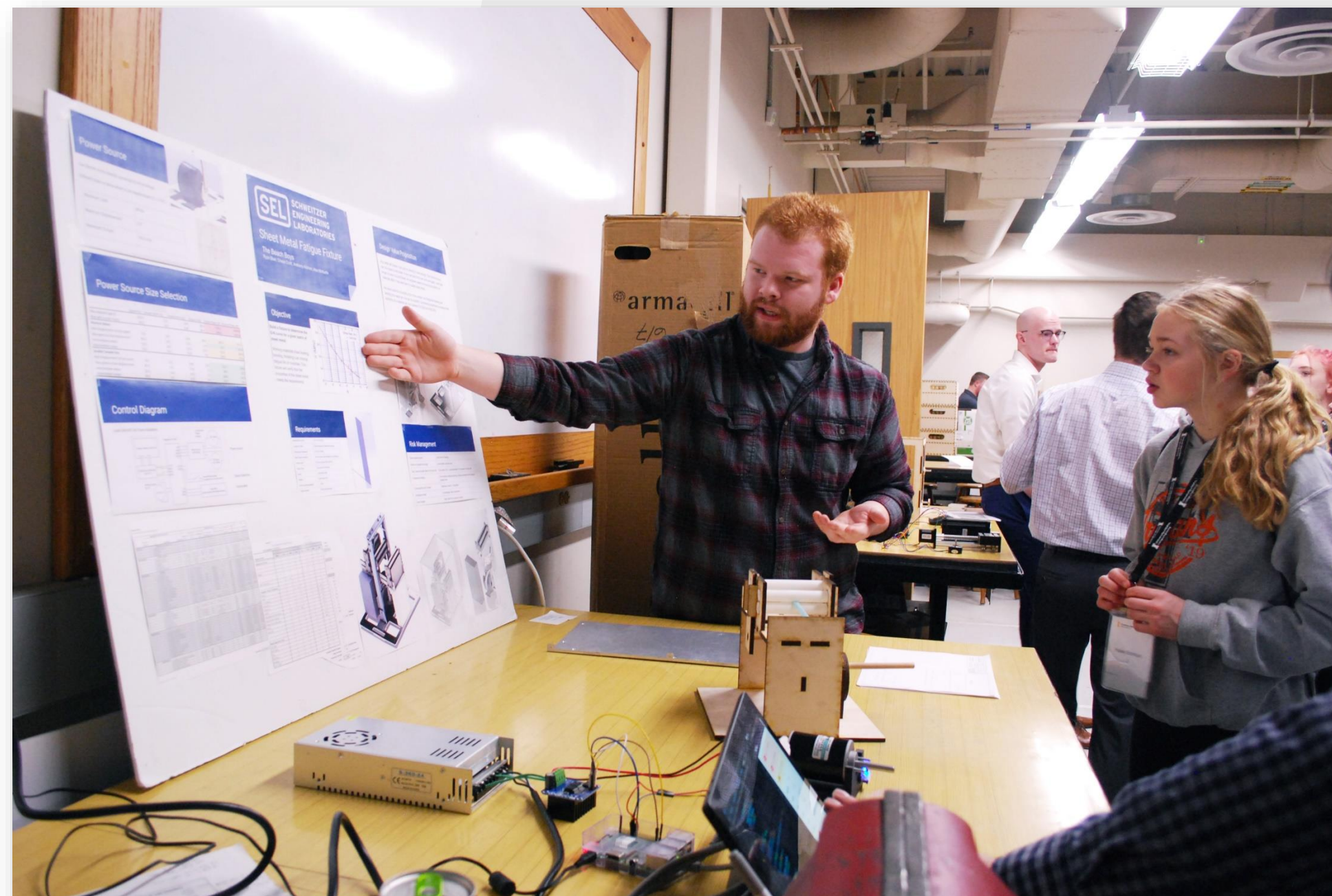


**I** Interdisciplinary Program

**I** Highlight of undergraduate experience

**I** Collaborate with numerous industry clients throughout the Pacific Northwest and beyond

**I** Opportunities for small and large corporations to recruit talented young engineers





# IMPROVING THE STUDENT EXPERIENCE



**Objective:** Transform the Senior Design Suite into a **Centralized Hub** for developing leadership, entrepreneurship, collaboration, and innovation skills.

The project also aims to **modernize the facilities**, creating an attractive space to improve student recruiting and retention.



Design Suite Today



# SENIOR DESIGN SUITE - CURRENT



- I Located in Gauss-Johnson Engineering Laboratory
- I Multipurpose space for prototyping (main space) and collaboration (meeting room)
- I Adjacent to the ME Machine Shop
- I Dedicated workspace to centralize senior design team efforts and display projects throughout the academic year.



# ***ENGINEERING INNOVATION STUDIO***



## **ARTIST RENDERINGS**



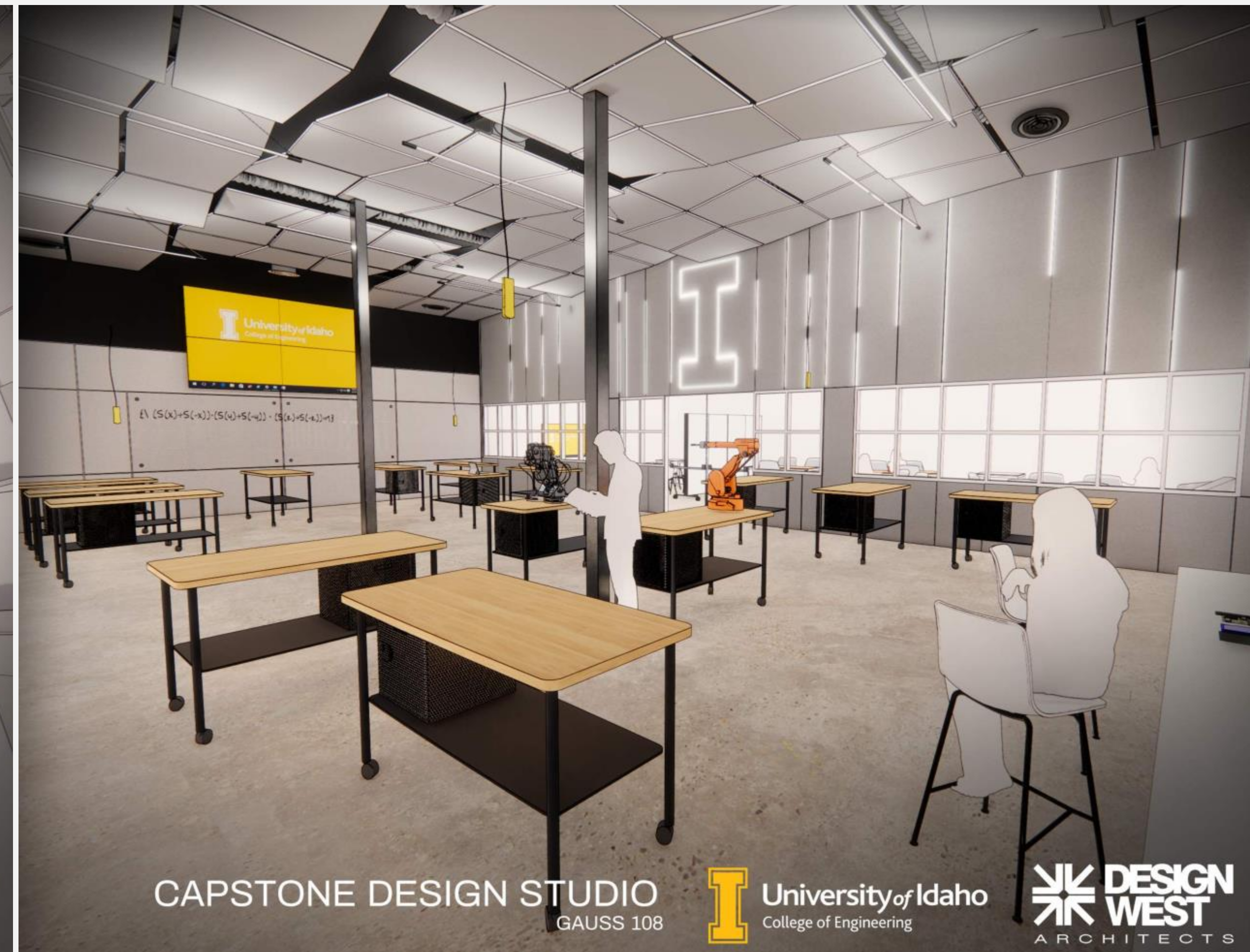
- I** Acoustic ceiling tiles for reduce ambient noise and increase comfort
- I** Modern furniture to enhance comfort and facilitate collaboration
- I** Aesthetic improvements
- I** Repainting and refurbishing existing workbenches



# DESIGNING A SIGNATURE SPACE



CAPSTONE DESIGN STUDIO  
GAUSS 108



CAPSTONE DESIGN STUDIO  
GAUSS 108



Focus is on both assembly area and back room

Major upgrades to infrastructure and furnishings



# ***ENGINEERING INNOVATION STUDIO***



## **ARTIST RENDERINGS**



- I** Glass entryway to increase visibility of program and invite visitors
- I** Large glass windows adjacent to doors (visibility from hallway)
- I** Additional entrance (LH side of image)
- I** Modern door security access (keyless) enhancing student accessibility



# TRANSFORMING THE BACK ROOM

into a modular collaboration, teaching,  
and learning space



Movable partitions to create flexibility for client meetings,  
design reviews, or socially distant collaboration.

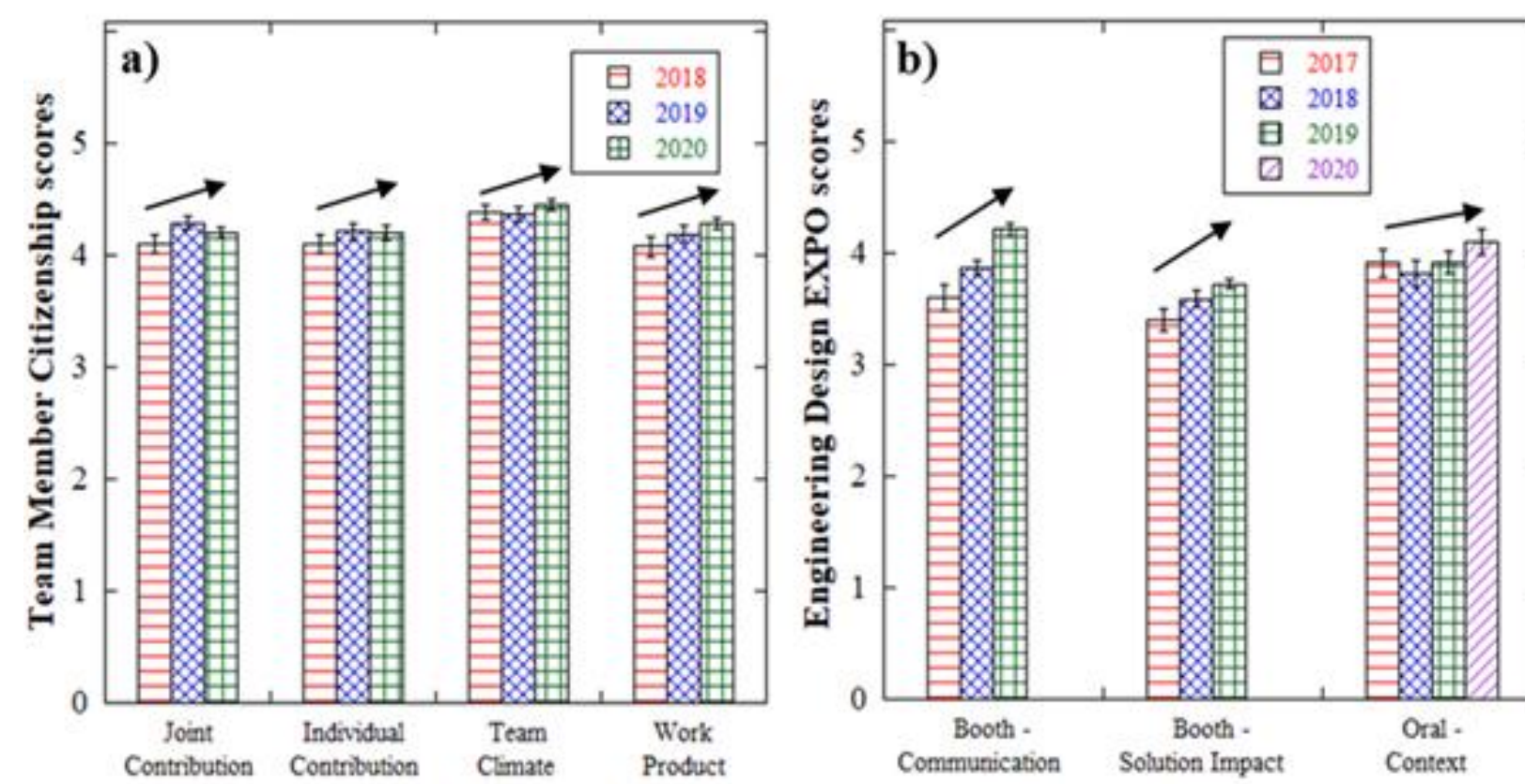


# LEADING AND INNOVATING

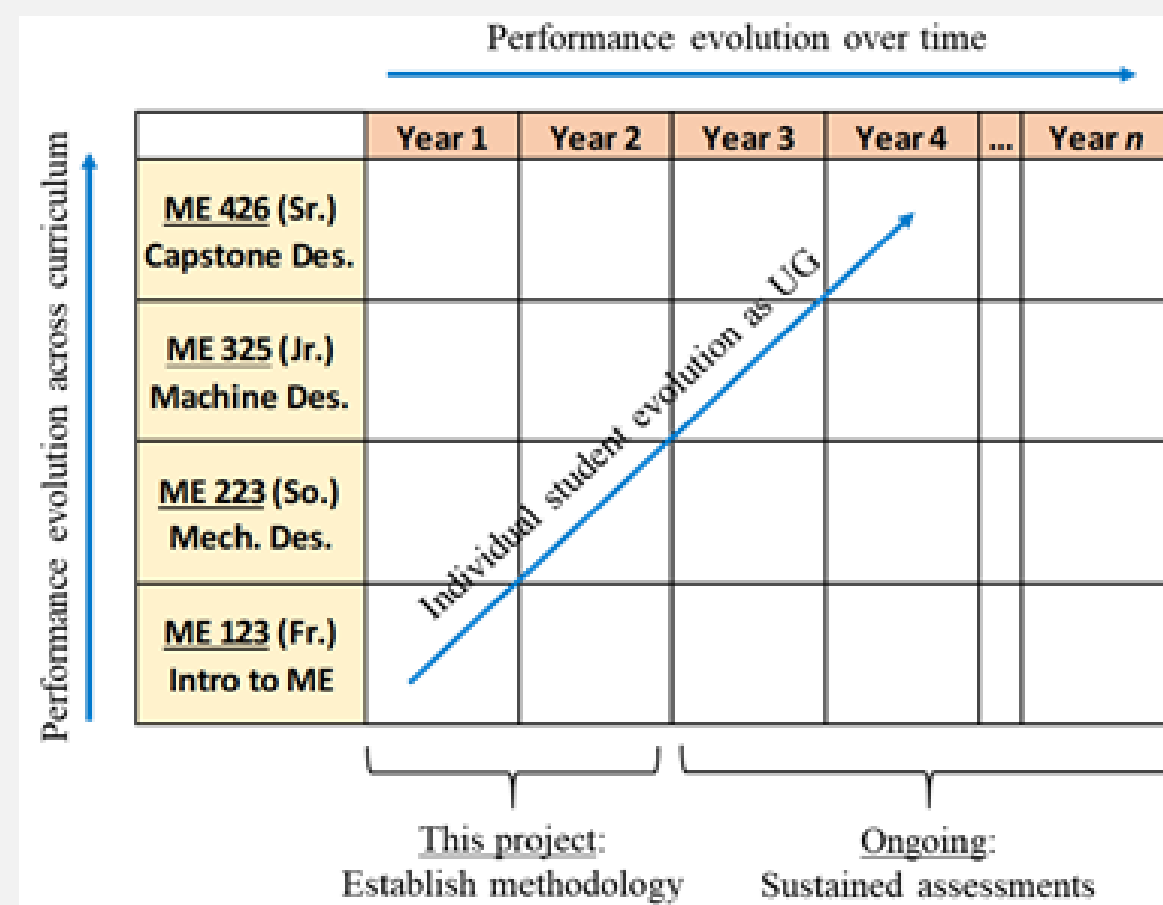
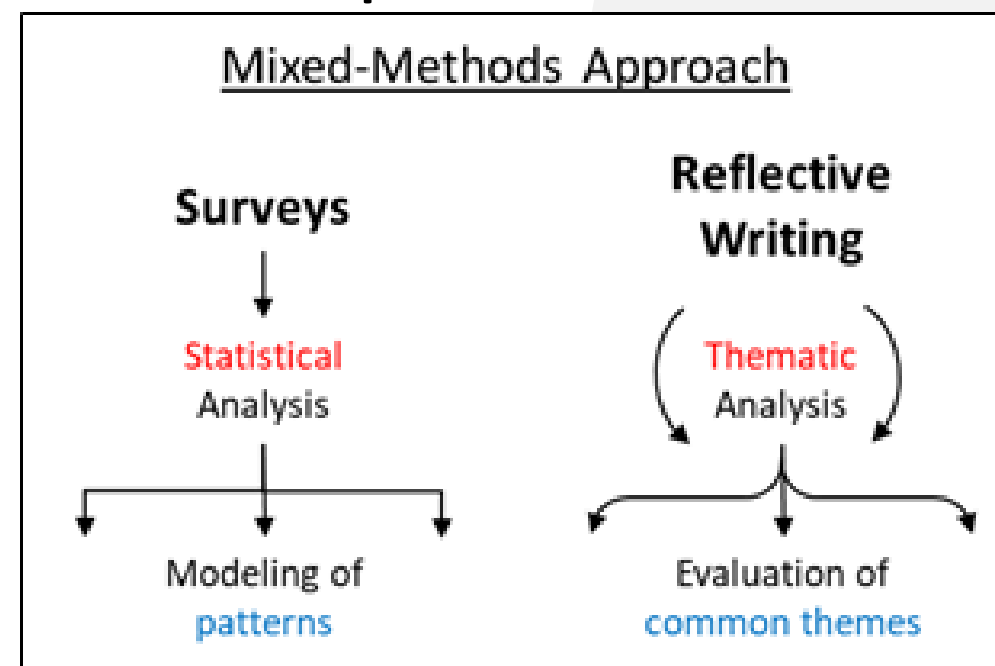


## LEADERSHIP & COLLABORATION

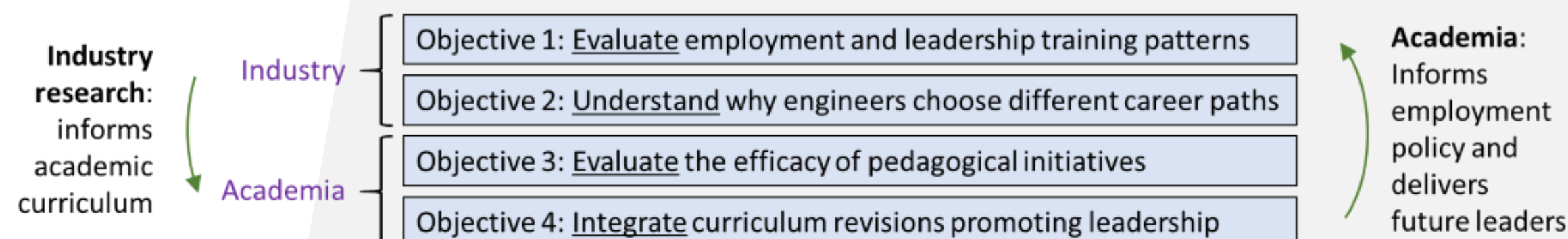
1. Emphasis on Teamwork & Value Proposition



2. Longitudinal Assessment of Leadership skills



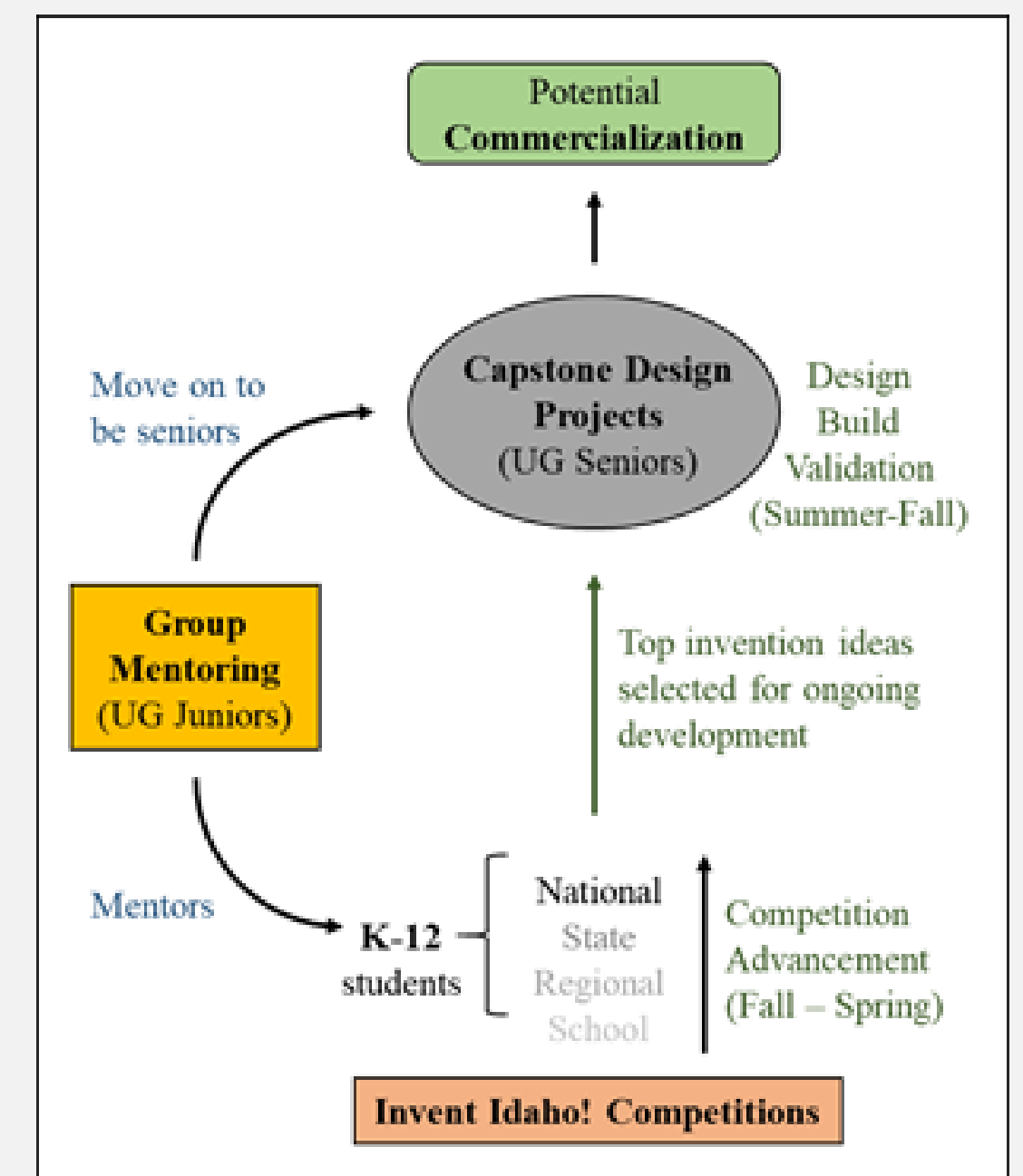
3. Academia --> Industry Research



## INNOVATION & ENTREPRENEURIAL SPIRIT

- Leverage Summer-Fall Capstone
  - Intercollegiate collaboration to create new inventions
  - Invention Disclosures:
    - Braille business card printer (CDAR)
    - Assistive CPR device (WWAMI)
    - Fish Vaccination System (CNR)

- Expand relationship with Invent Idaho via:
  - UG Mentoring
  - Create a project pipeline for Capstone





# MAKING IT HAPPEN!



We rely on the philanthropic support of our dedicated alumni friends and trusted industry partners to bring this amazing project to reality.

## I Project Financial Structure

- Phase 1 - \$50,000
  - Polished concrete floor and painting
  - Clean-up of utilities and electrical improvements
  - Floor-to-ceiling white boards
- Phase 2 - \$100,000
  - Light fixtures and “I” logo accent
  - Ceiling tiles and soundproofing
  - Add second exit (required for code)
  - Large presentation monitor
- Phase 3 - \$50,000
  - “Storefront” entrance door
  - Upgrades to back room
- University Overhead/Contingency - \$50,000

## I Fundraising

- \$20,000 committed from ME department
- College website - <https://www.uidaho.edu/giving/engr/facility-upgrades>

## ***HELP US REACH OUR GOAL***

For more information on ways to support this effort, contact **Bobbi Hughes**, Executive Director of Advancement, at [\*\*\*bhughes@uidaho.edu\*\*\*](mailto:bhughes@uidaho.edu).

