



THE UNIVERSITY
OF ARIZONA

People, Places and Things: how to integrate
innovative library spaces with student success in
and out of the curriculum

8 OCTOBER 2023

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

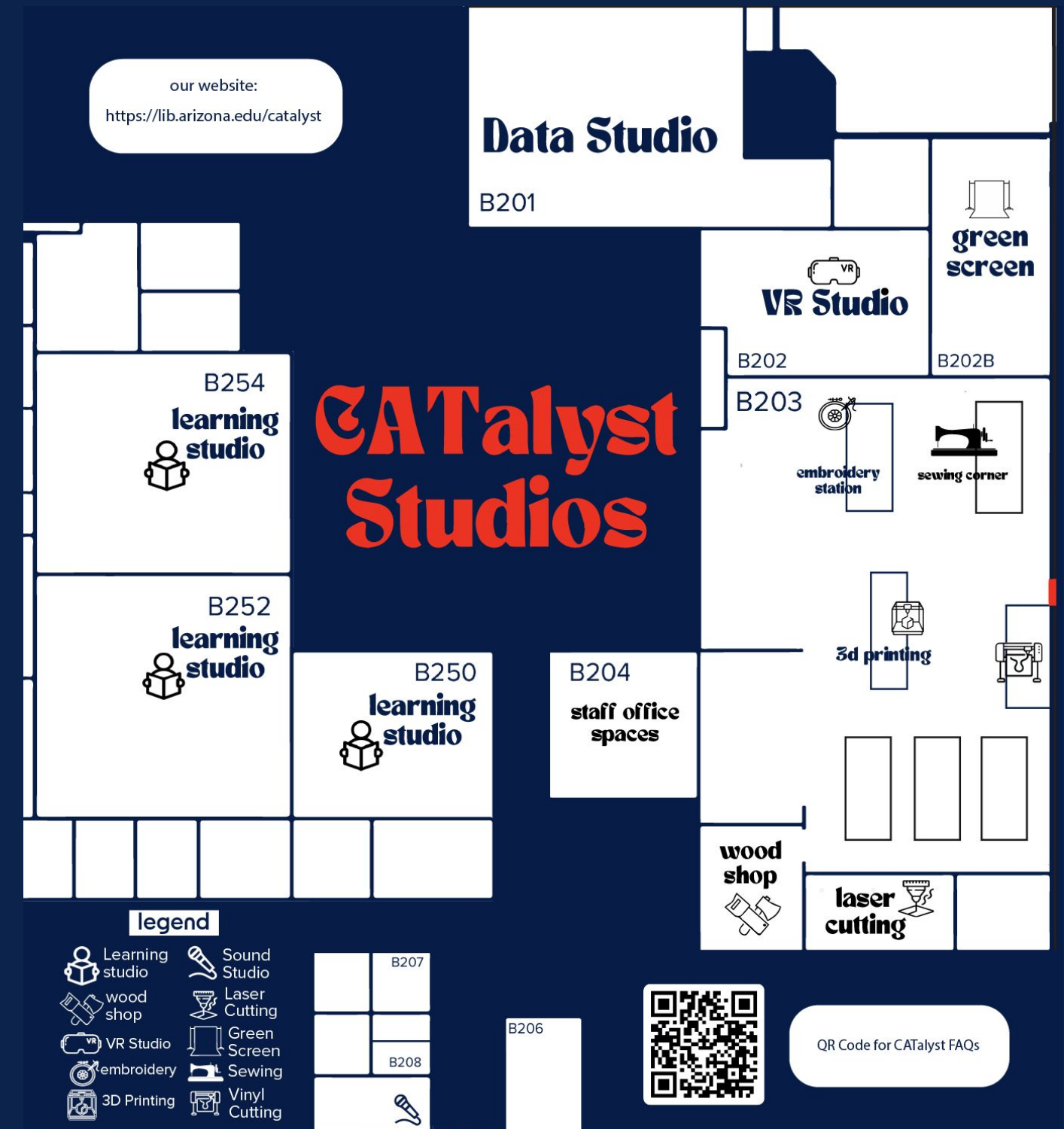


12:30-1:45 CATalyst Studios Overview & Programs

1:45-2:45 Tour and Open House

2:45-4 Faculty Collaborator Panel

4-4:30 Q&A



Questions?

Ask them here along the way



<https://tinyurl.com/DLXcatalyst>

PURPOSE

Working together to expand human potential, explore new horizons and enrich life for all.

MISSION

Continuously improve how we educate and innovate so we can lead the way in developing adaptive problem-solvers capable of tackling our greatest challenges.

CORE VALUES

INTEGRITY • COMPASSION • EXPLORATION • ADAPTATION
INCLUSION • DETERMINATION



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ABOUT THE UNIVERSITY OF ARIZONA

Location: Tucson, Arizona

Enrollment: 49,471 Students (Undergraduate 38,528 | Graduate 10,943)

Research Expenditures: \$770M

POINTS OF DISTINCTION:

- Land-grant and Space-grant university
- R1 university
- AAU
- Hispanic Serving Institution
- 28% Increase in Native Student Enrollment
- Two accredited medical colleges and one college of veterinary medicine

TOP RANKINGS

- Top 50 Public University
- Top 20 Public Research Institution
- Top 10 University for Veterans
- No. 1 in Astronomy 32 Consecutive Years
- No. 1 in Water Resources



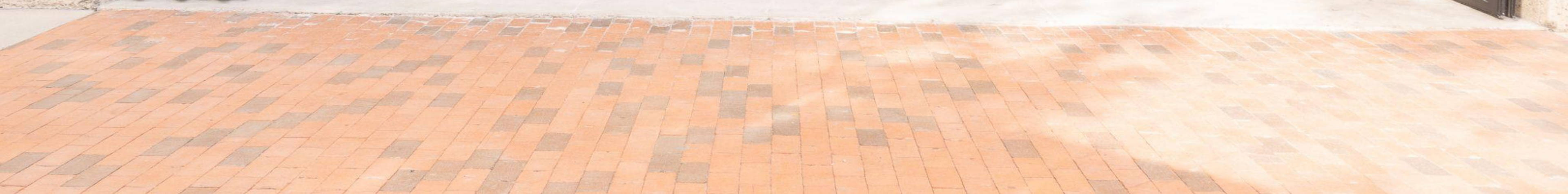


CATalyst Studios

Opened January 2020



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Tech

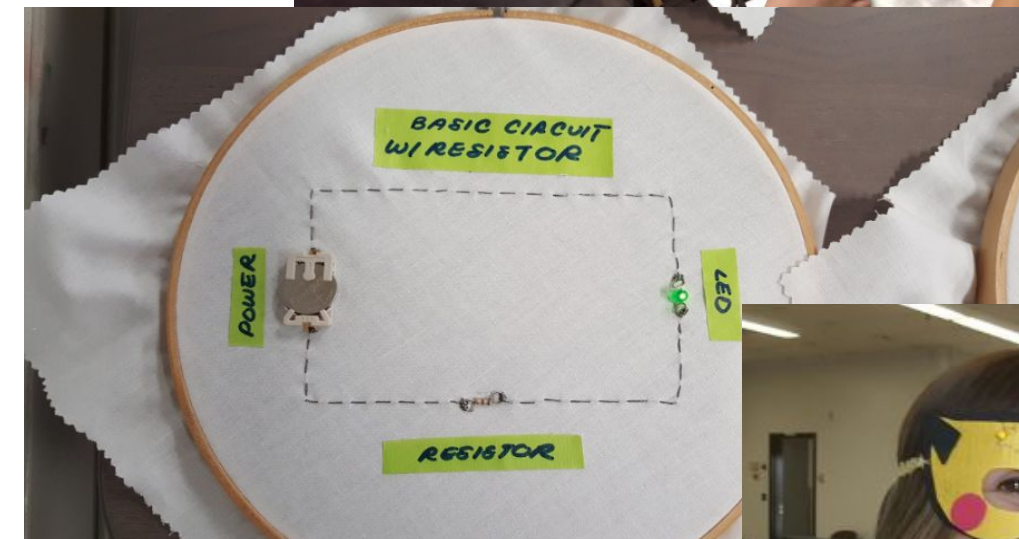
- **VR headsets**
- **Micro-computing**
 - Arduinos
 - Raspberry Pi
- **E-textiles & circuits**
- **Screen printing**
- **Adobe Creative Cloud**
- **Video wall**
- **Sewing machine**
- **Rapid prototyping**
- **3D Printer**
- **Laser cutter**
- **CNC Router**
- **LittleBits**
- **3D scanner**
- **360 cameras**

Programming

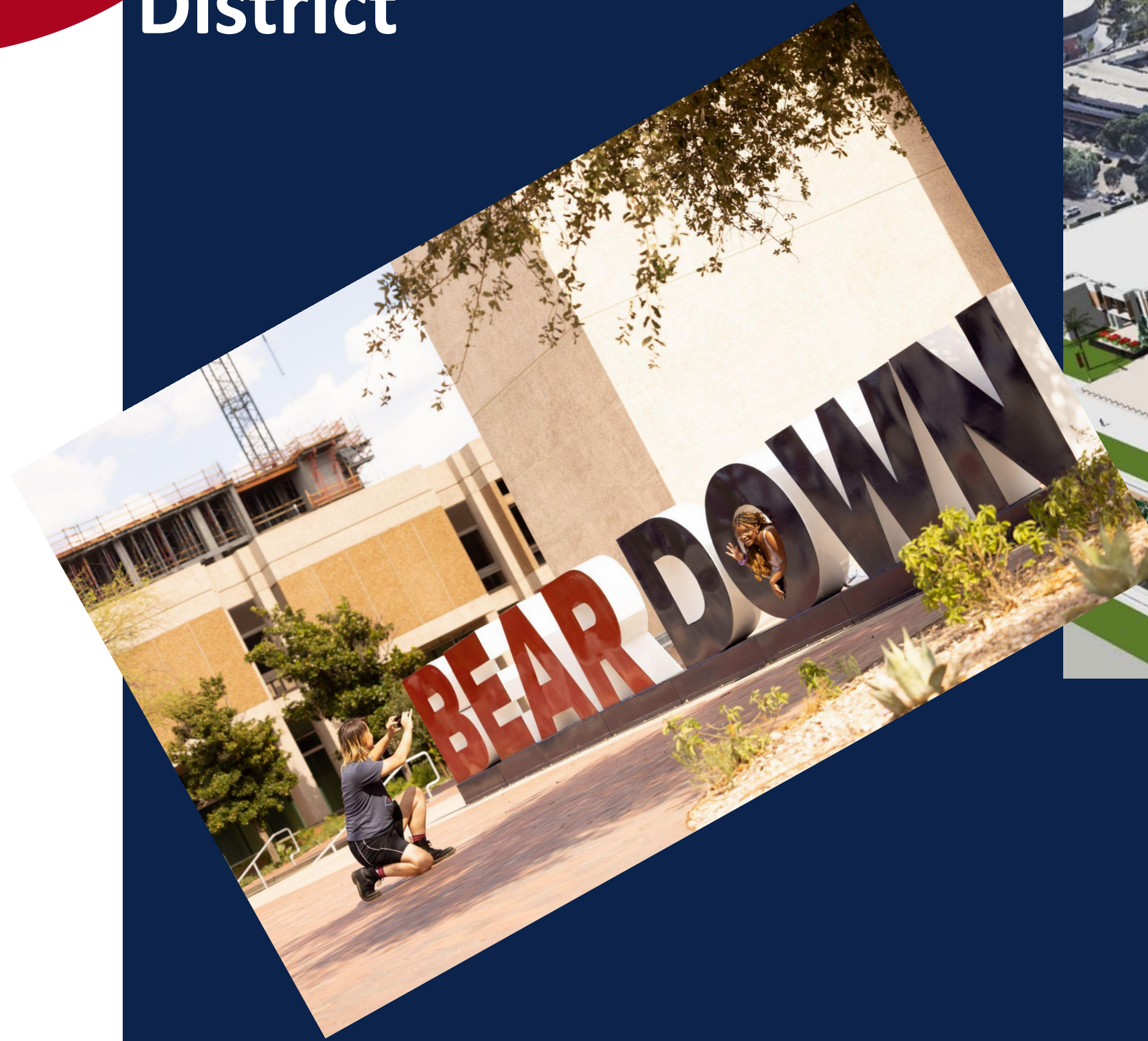
- Friday Tech Talks
- “Shut Up & Write”
- Google Study Jams
- Women Techmakers Hackathon
- Evening workshops
- Middle & high school tours and maker days
- Maker Party
- Research Bazaar
- VR Summit

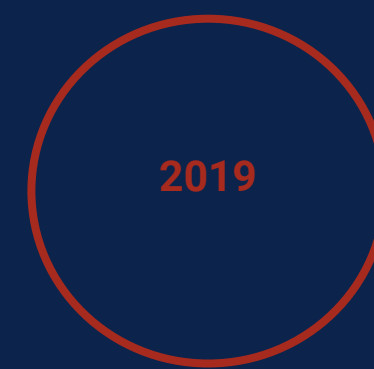
Classes

- First-year composition
- Business & technical writing
- Africana Studies
- Fashion and Retail
- Digital Storytelling
- Shakespeare
- Neuroscience
- Gender & Women's studies
- Soil, Water and Environmental Science



Student Success District





Planning and Design

Define elements of space
research equipment and furniture
define organizational structure
Fundraising

Construction & Hiring

Director Search March 2019
Staff Hiring August 2019
Soft open October 2019
Close iSpace December 2019
Fundraising



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2020



2021



2022



2023

Grand Opening

Open January 2020
Close March 2020-August 2021

Re-Opening

Experiential Learning Librarian
Resume start-up activities
Open hours 6 days/week
Hybrid work schedules

Up and Running

Staff Turnover
Redefinition of roles
additional students
Intern Cohort #1
Faculty Learning Community #1 F

Going strong

Addition of Operations Assistant
\$50 credit for students
dramatic increase in usage



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Current Staff



Jen Nichols

Director

jtn@arizona.edu



Rachel Castro

Experiential Learning Librarian

Castro2@arizona.edu



Mona Nakamura

Outreach and Programs

mnakamur@arizona.edu



Niko Sanchez

Digital Design and Fabrication

nikosanchez@arizona.edu



Hana Lipke

Operations Assistant

hanalipke@arizona.edu



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CATalyst Student Workers

&

Undergraduate Interns

20

Linguistics

Information
Science,
Technology
& Art

4

18
Since
1/22

Architectural
Engineering

Elementary
Education

Management
Information
Systems

Classics

Art

Computer
Science

Environmental
Engineering

Dance

Classics

Mechanical
Engineering

Veterinary
Science

Fashion
Design

Nursing

Library
Science

Optical
Science



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CATalyst Student Assistants



CATalyst Student Assistants

Who are they?

- Team of 20 - 25 students (undergrad and grad)
- 16 different majors
- Makers



CATALyst Student Assistants Training

- Week long intensive Orientation
 - Technical Training
 - Customer Service Training
 - Safety Training
 - Positionality
 - Team Building



Certifications and Workshops

Certifications

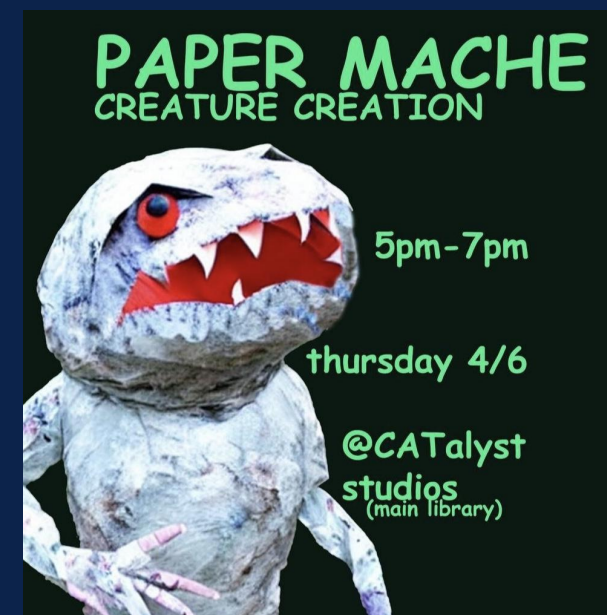
- 3D Print x7
- Laser Cutting x1
- Embroidery x1
- Sewing x3
- CNC x1
- Screen Printing x1
- Vinyl Cutting x1

Student Led Workshops

- Rubber Stamp Making
- Jewelry Making
- Pet Rock
- Paper Mache
- Slime
- Wood Burning
- Clothing Swap

Collaborative Workshops

- Students for Sustainability
- Cultural Centers
- LGBTQ Resource Center



CATalyst Student Team Lead

- Includes Current Responsibilities
- Long Term Projects
- Leadership and Project Management Opportunity



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Studios

Maker Studio



VR Studio



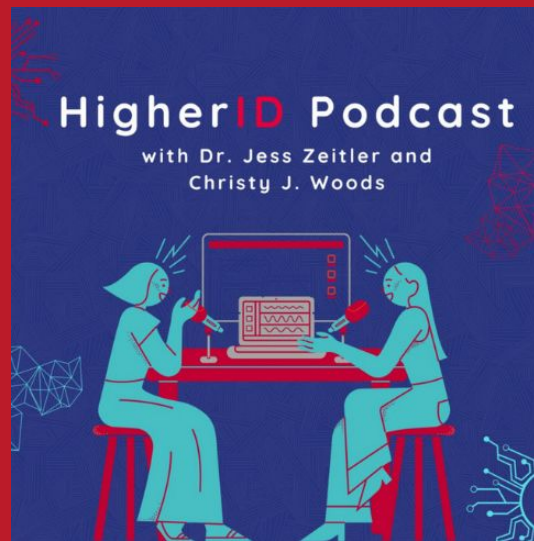
Learning Studios



Data Studio



Sound Studio



Green Screen Studio



Equipment

FDM Printers



Woodworking



SLA Printers



CNC Mill



Laser Cutter



Sewing Machines



Vinyl Cutter



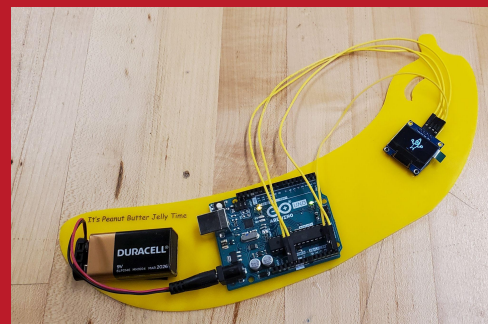
Crafting Supplies



Embroidery



Electronics



Online Training Modules



3D Printing at CATalyst Studios

START



Learn about 3D printing at CATalyst Studios.

☰ Getting started



☰ Safety tips



☰ Anatomy of a 3D printer



☰ Anatomy of a print



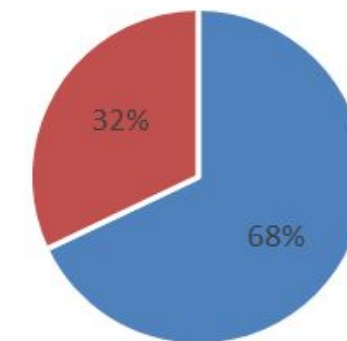
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Quick Stats:

- 1098 students came through space
- 3245 total visits last year
- 69 majors represented amongst patrons
- 74 university departments represented by university employee patrons

- \$2,300 of student credit used
- \$55,000 available credit to students
- 87 students utilized credit
 - 59 undergraduate
 - 28 graduate
- \$26/\$50 average credit utilization

Total Undergrad vs. Grad Students



■ Total Undergraduate Students: ■ Total Graduate Students:

1100+ visits since
the beginning of the
Fall 2023 semester

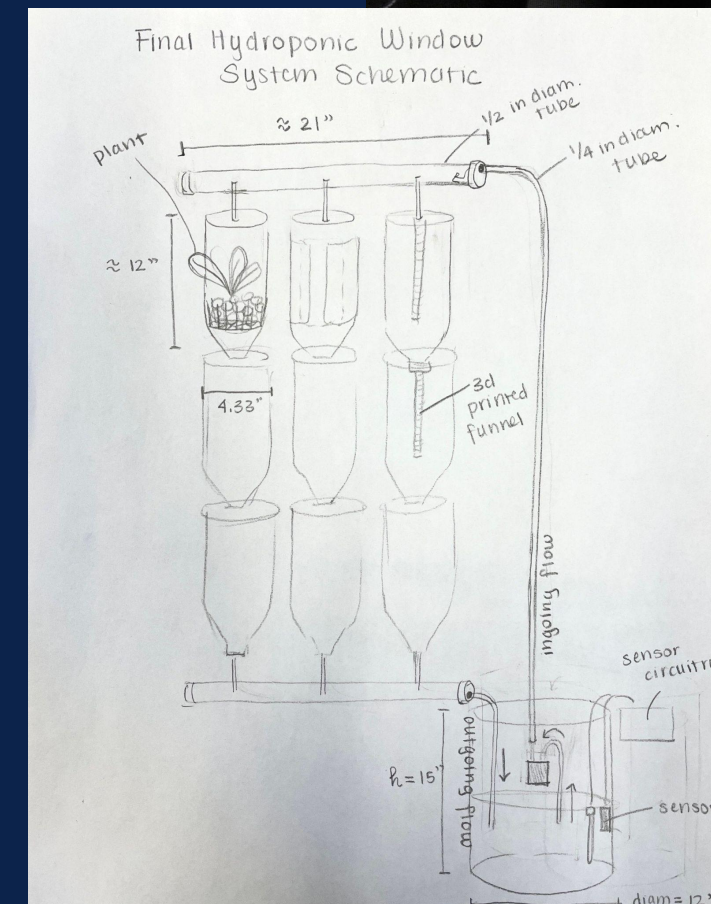
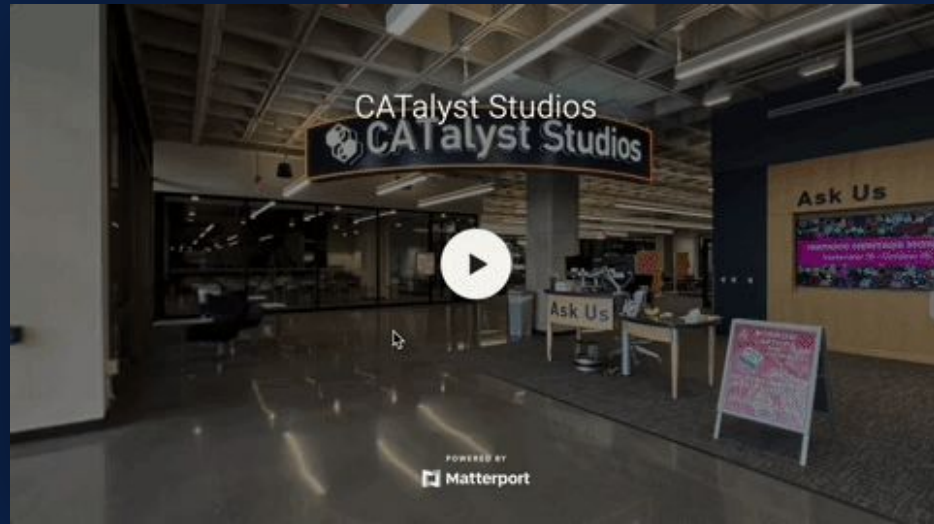
Curricular Engagement

- Provide support to adapt or create assignments to incorporate experiential learning
- Create in-person and online training for classes using maker tools or CATalyst Studios resources
- Empower instructors to explore new pedagogical practices and use CATalyst Studios resources independently

Since Fall 2021:

- CATalyst Studios has worked with 42 distinct courses
- 11 courses return on an annual/ semester basis
- Class/section size ranges from 8 to 110 students; ENGR 102B maxes out at ~600
- 2,769 students brought to CATalyst across 246 scheduled visits
- Approximately 1,525 engineering and fashion students were certified in 3D printing

Undergraduate Internship





There are so many different possibilities that I can pursue after learning all of this stuff...I have more confidence! You really can do whatever you want.

—Farrah, Fall 2022



\$\$\$

- **Total project cost for Main library = \$13.2 (construction, furniture, AV)**
- **\$2.5 million furniture**
- **Hyams Endowment unexpected gift to Libraries redirected as Operations funding for CATalyst = \$21,000/year**
- **iCourse Fee \$50,000/year to support student wages**



Lessons Learned

Know what you want

Represent the users and maintainers

Ask lots of questions and find expertise

Build flexible spaces

Signage and branding is important



Lessons Learned

Be selective and strategic with partnerships

- Integration through adjacency is ideal

Clear pathways for engagement

Student feedback loops

- Insight for us as leaders
- Reflection for students
- Building trust as a team





Questions?

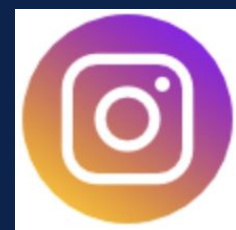




CATalyst Studios

THANK YOU!

catalyst@email.arizona.edu



@uacatalyst



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1:45-2:45

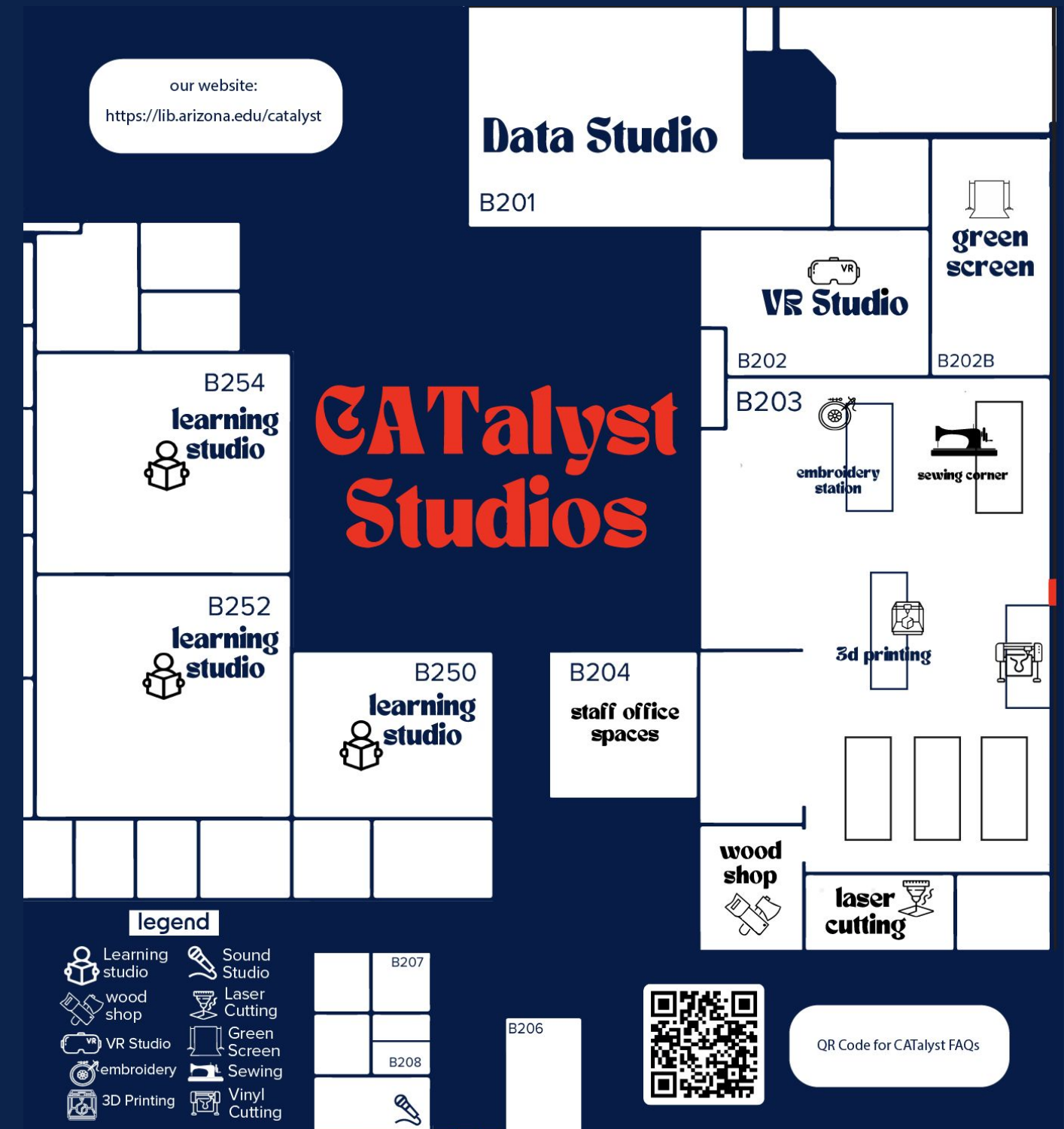
Tour and Open House

2:45-4

Faculty Collaborator Panel

4-4:30

Q&A



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CATalyst Faculty Collaborator Panel



Devin Bayly, UITS Research Computing

Kevin Black, Film, Theatre and Television

Matt Briggs, Engineering and Health Sciences Design

Rachel Castro, UA Libraries, CATalyst STudios

Jeff Oliver, UA Libraries, Research Engagement

Katy Prudic, School of Natural Resources and the Environment

Hope Simpara, Fashion Industry Science and Technology





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