COLLEGE OF INNOVATION + DESIGN

2017

BOISE STATE UNIVERSITY
The College of Innovation + Design (CI+D) was created two years ago to serve as a catalyst for Boise State University, a model for the higher education industry, and a partner to selected external ventures looking for visionary university partners. This college is both an experiment and experimental. It represents Boise State’s commitment to and investment in the future of higher education and what it will mean to our students and the communities and industries that will house and hire them.

We sponsor faculty launching new majors, minors and certificates in areas that bend and break traditional disciplinary boundaries. We identify solutions that solve challenging issues facing higher education today — from boosting the skills, experiences and employability of our graduates, to connecting them to lifelong learning opportunities available when they are needed the most.

And while we were designed to embrace the agility and the speed of a start-up — and therefore don’t expect 100 percent of what we attempt to succeed — we believe the investment will be worth the return for our city, our region and our students.

The innovative ideas being incubated in our college have generated support from our elected leaders. The 2017 Idaho Legislature invested in a suite of exciting initiatives that seek to better prepare our graduates for the workforce of the future — a future that is coming fast.

I like to think of our college as a place of doers, innovators and experimenters. While the fear of risk and the crush of everyday demands can slow an organization’s or individual’s efforts to undertake new possibilities, we seek to embrace the unknown to ensure that Boise State University and our graduates are best poised to be distinctive and successful long into the future.

I don’t pretend to be a purveyor of truth, but I do lead this college on the belief that we should act on the information, intelligence and insight that suggests the direction public higher education needs to be pointed if we seek to serve our students, our communities and our industry partners.

Please read on to learn more about the initiatives we have started or nurtured in 2017. As catalysts of change, founded on a deep respect for higher education and Boise State University, we can’t wait for this coming school year. We are always on the lookout for partners, collaborators and fellow innovators — I hope you join us on this journey.

“The College of Innovation + Design was created two years ago to serve as a catalyst for Boise State University, a model for the higher education industry, and a partner to selected external ventures looking for visionary university partners.”

GORDON JONES
Dean, College of Innovation + Design

AT A GLANCE

750
students took at least one course offered by CI+D

1,250
students involved in academic and co-curricular programming

450
students pursuing degrees or certificates in our Games, Interactive Media and Mobile major, our Leadership program and our just-launched Design Ethnography certificate
OUR FOCUS FOR IMPACT

1. INNOVATE WITHIN THE UNIVERSITY
   Spark new programs, pathways and partnerships that traditional boundaries tend to prevent or delay.

2. IMAGINE THE FUTURE UNIVERSITY
   Lead the nation in designing higher education that will meet the needs of students, communities and employers.

3. INSPIRE THE CONNECTION BETWEEN UNIVERSITY AND COMMUNITY
   Foster meaningful relationships between educators and industry innovators to best align what students are learning in college with what will be demanded of them after the diploma.

PRESIDENT’S MESSAGE

BOB KUSTRA
President,
Boise State University

Boise State University is a place where world-class researchers, innovators and leaders of the future are working together to solve the problems of a rapidly changing economy. A growing number of experts and education watchdogs have deemed Boise State as a university of the future. President Barack Obama took notice. So did the Chronicle of Higher Education – and the founding director of the Harvard Innovation Lab, who left Cambridge to become the inaugural dean of Boise State’s new College of Innovation + Design. Dean Gordon Jones’ vision is driving nimble, innovative and responsive initiatives and programs at Boise State. Students arriving in record numbers will find the opportunities and hands-on experience that launch them into careers with the skills, abilities and knowledge to succeed. Our civic and industry partners look to Boise State for the researchers, innovators and leaders of the future. The university of the future goes beyond the structural and cultural norms of a traditional university to provide new pathways for learning and new ways of engagement with the workplace and community. We look forward to connecting and working with others in collaboration.

We hope you will join us in these exciting endeavors. You’ll find ways to reach us throughout this report. We look forward to hearing from you.
## Programs

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### Seeking Inspiration?

Some of Dean Jones’ favorite quotes serve as a reminder that expertise is important, but it is ok to challenge conventional wisdom while looking toward the future.

- “I think there is a world market for maybe five computers.”
  Thomas Watson, President of IBM, 1943

- “This ‘telephone’ has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us.”
  Internal Memo, Western Union, 1876

- “Who the hell wants to hear actors talk?”
  Harry Warner, Warner Brothers, 1927

- “If I had thought about it, I wouldn’t have done the experiment. The literature was full of examples that said you can’t do this.”
  Spencer Silver, co-inventor 3M Post-It notepads
DEVELOPING BLEEDING EDGE VIRTUAL AND AUGMENTED REALITY TECHNOLOGY FOR BETTER WORK, LIFE AND LEARNING

Our most immediately popular program, the “GIMM” major teaches students how to develop leading technology to solve real human problems — and the timing couldn’t be better. Career opportunities for these high-end technology skills and experiences are expected to grow by a third by 2020. Drawing from disciplines as varied as art, psychology and computer science, GIMM students design and build mobile apps, create virtual and augmented reality environments and even develop new devices. As opportunities grow for GIMM students to collaborate with faculty and industrial sponsors, enrollment exceeds all expectations each year.

FACULTY LEADER
Dr. Anthony Ellertson
cid.boisestate.edu/gimm

HIGHLIGHTS

Our award-winning virtual reality nursing simulation is being tested nationwide in 16 universities and medical schools.

Boise State earned national recognition for a student’s award-winning virtual reality project.

A documentary project with 360-degree video of Hells Canyon was filmed with Idaho Power.

Rewarding collaborators include Idaho National Laboratories, Idaho Virtual Reality Council, Idaho Power, Silverdraft, Robert Morris University, University of Utah, Unity Game Engine and more.

FACULTY LEADER
Dr. Heidi Reeder
cid.boisestate.edu/leadership

CAPABILITY NOW! CERTIFICATE SIGNIFIES LEADERSHIP KNOWLEDGE AND READINESS

Students with a “LEAD” certificate have more tools in their toolkit, and they know how to use them. Critical thinking, communication and problem solving are essential to succeeding in the workplace. In fact, employers consider these abilities more important than skills that may be earned with a particular undergraduate minor. In academic and real-world experiences that model leadership, students gain experiences that prime them to be high-integrity change agents in their discipline and in the world. Consistently, feedback from students confirms that LEAD gives them an advantage they need. The program delivers world-class content locally while maintaining affordability and increasing access for all.

FACULTY LEADER
Dr. Heidi Reeder
cid.boisestate.edu/leadership

HIGHLIGHTS

154 certificates earned as of spring 2017.

Our first online courses launched in spring. Nearly 100 students will be taking a LEAD course online this fall.

We’ve enrolled more than 200 students each semester across disciplines and majors — including psychology, communication, bachelor of applied science, sociology, criminal justice, environmental and occupational health and human resources management.

More than 30 students travel for Alternative Spring Break service projects exploring animal advocacy in Kanab, Utah, and food justice in Seattle, Washington, through a collaboration with the Student Involvement and Leadership Center.
A HYBRID APPROACH FOR THE NEXT GENERATION OF ENVIRONMENTAL RESEARCH SCIENTISTS

This extraordinary group of researchers is opening the world of environmental research to students in new ways. The research-intensive and student-centered teamwork is focused on solving the world’s greatest environmental challenges, such as water scarcity, food security, deforestation, pollution, biodiversity, habitat loss and climate change. Students bridge diverse disciplines of the social and biological sciences — often side-by-side with stakeholders themselves. The experience ensures these students are exceptionally qualified for compelling careers in research.

FACULTY LEADERS
Dr. Nancy Glenn
Dr. Shawn Benner

$1 million in research grants were awarded to support students engaged in Human-Environment Systems science.

New Ecology, Evolution and Behavior Ph.D. program launched.

Awarded a new collaborative grant with Pacific Northwest National Laboratory to focus on land-use change at local and global levels.

The Treasure Valley Water Atlas and quality research recognized for effectively growing our region’s understanding of shifting land use.

HIGHLIGHTS

FACULTY LEADERS
Dr. John Ziker
Dr. Kendall House

HIGHLIGHTS

LEVERAGING THE STUDY OF HUMAN BEHAVIOR INTO A VALUABLE SKILL SET FOR THE JOB MARKET

New jobs are being created every day that demand an ability to integrate user needs and human behavior into the development and design of products, services, policies and organizations. New software and information technology is moving at the speed of industry, and innovation and rapid change are the norm. This certificate, initiated by Dr. John Ziker, Boise State professor of anthropology, provides the data analysis and observation skills of an ethnographer — and the context and connections to help students use these competencies to work with businesses and industries to develop insights into user experience. Many students in the 12 credit-hour online program already are working, and can readily apply their new skills and add value to small Idaho firms, family businesses and large employers.

FACULTY LEADERS
Dr. John Ziker
Dr. Kendall House

From proposal to implementation in just one year.

The first two graduates completed capstone projects summer 2017 and 10 more are on track for fall.

We solicited and integrated the input of 24 working professionals nationally into creating the certificate curriculum resulting in 9 capstone courses ready for students to enroll.

An impressive 33 students enrolled in the soft launch of the program, taking 132 credit hours in spring and summer.

Healthcare and private sector employers are initiating and responding to requests for partnership.

HIGHLIGHTS

cid.boisestate.edu/ethnography
Vertically Integrated Projects — known as “VIPs” — give students compelling opportunities to work on large-scale research and development issues of local and global importance, the very kinds of hands-on work that can define a student’s future. Teams, inclusive of all student levels and disciplines, work with faculty on long-term projects of local and global significance, and cross the usual boundaries of research and give students skills relevant to the research lab and the workplace. Diverse projects and new teams launch each year focused on a variety of research areas ranging from building robots for NASA to developing shelters for humanitarian aid relief efforts.

**FACULTY LEADER**
Dr. Will Hughes

cid.boisestate.edu/vip

**HIGHLIGHTS**

$100,000 NSF EAGER Germination Award: Aligning Structures and Stakeholders to Enable Risk Taking (ASSERT).

VIP has been awarded $310,000 over three years from The Leona M. and Harry B. Helmsley Charitable Trust.

VIP students successfully produced a prosthetic hand device, called Raptor, which is made inexpensively with 3-D printed materials.

Former NASA astronaut Steve Swanson leads campus VIP projects in partnership with NASA as the distinguished educator in residence.

**EXECUTIVE DIRECTOR**
Mike Sumpter

cid.boisestate.edu/venturecollege

**EMPOWERING STUDENTS TO TAKE THEIR IDEAS AS FAR AS THEY CAN GO**

At the very foundation of the Venture College is the idea that entrepreneurship is not only the act of starting a venture, but also a skill set, a state of mind, and an approach to solving problems of importance to our community and world.

We believe every student at Boise State should be encouraged to apply the ideas they are learning in the classroom. We are a cross-university resource that equips students to take their ideas, projects, ventures and develop them into their full potential. Students develop their skills and access the resources they need to take their projects and ventures as far as they can go.

About 500 students worked with us to develop their ideas, and 36 ventures launched. We believe we are demonstrating that motivated students, with support from Boise State and the community, are ready to contribute to growing the economy and enriching the lives of those in the Treasure Valley and beyond.

**EXECUTIVE DIRECTOR**
Mike Sumpter

cid.boisestate.edu/venturecollege

**HIGHLIGHTS**

36 operating businesses & $4.29 million in resources earned (sales, capital raised, competitions and charitable contributions).

$70,000 in charitable contributions received.

1,000+ students participated in programming.

We’ve grown our network to more than 700 community supporters.

Students generated 400 apps with 1.5 million downloads.

137 competition prizes.
EXPERIENCE IN JOBS
STUDENTS ACTUALLY WANT IS GOOD FOR
EMPLOYERS, TOO

Relevant work experience is critical if new graduates want to get good jobs. Work U supports the idea that there’s no better classroom than the job itself. Students describe Work University Cooperative Education (Work U) as a place to gain professional confidence, build their professional network, and explore their professional aspirations. A growing number of employer partners recognize Work U as an opportunity for recruitment and vetting of future employees. Work U is an educational, cooperative learning program open to any upper class student in any major. Students earn elective credit in a part-time professional position, and with the help of a mentor, apply the knowledge gained in academic study in weekly class sessions.

Local businesses and industries from high-tech to healthcare provide valuable work experiences while a more experienced talent pool grows.

PROGRAM CONTACT
Lonnie Jackson
Email: lonniejackson@boisestate.edu

cid.boisestate.edu/work-u

HIGHLIGHTS
St. Luke’s was the program’s inaugural partner in 2017.

Students represent a variety of majors; English, engineering, communications, health policy, microbiology, prelaw, human resources and computer science.

Program growth from 1 employer and 8 students in 2016 to 4 employers (and more coming soon!) and 30 student openings.

DISTINCTIVE COURSES
CONNECT KNOWLEDGE TO
PROFESSIONAL SKILLS
FOR ALL MAJORS.

Bridge 2 Career courses seek to narrow the distance between career and college. Courses such as Art of Java/Web Tools, Basics of Business, Applied Personal Finance, Learning How to Learn, Professional Work Skills and Creative Problem Solving, help students learn how to apply their newly-honed academic knowledge as professional skills, gaining the capabilities that business leaders believe are lacking in today’s workforce.

PROGRAM CONTACT
Linda Easley
Ph: (208) 426-2975
Email: lindaeasley@boisestate.edu

cid.boisestate.edu/b2c

HIGHLIGHTS
Enrollment and participation increased by more than 330 students.

Two new State Board of Education approved certificates launched: LEAD and Design Ethnography.

13 new courses launched led by local, regional and national subject matter experts.

Partners include Fullbridge, Discovery Center of Idaho, Interfaith Sanctuary and IDEO.

PROGRAM CONTACT
Lindsey Easley
Ph: (208) 426-2975
Email: lindaeasley@boisestate.edu

cid.boisestate.edu/b2c
CULTIVATING CREATIVE SOLUTIONS USING DESIGN THINKING ON REAL PROJECTS

To create unique access to IDEO U, the College of Innovation + Design leveraged our partnership with IDEO, a premier global design group that grew out of innovative thinking at Stanford University (IDEO stands for Innovation, Design, Engineering Organization). Boise State was the first university to partner with IDEO U, connecting Boise State students to IDEO and its world-class online curriculum combined with an in-person class. Collaborations this year have given students the opportunity to apply design thinking to come up with new solutions to real problems. The tools and methods that IDEO U teaches takes creative problem solving to a whole new level, and what students learn today will serve them well into the future in any context where problems are found — which, in the real world, is pretty much everywhere.

PHOTO: Diego Rodriguez, Professor of the Practice and Partner with IDEO design and consulting firm, San Francisco/Palo Alto, CA.

FACULTY LEADER
Dr. Luke Jones
cid.boisestate.edu/b2c

BOISE STATE CREDIT, HARVARD CREDENTIAL

Boise State and Harvard are collaborating to offer a first-in-the-nation opportunity for Boise State University students, recent grads and working professionals to earn credits toward a diploma (optional) while earning a credential of readiness (CORe) from Harvard Business School. Participants learn from the best in the business — none other than the Harvard Business School faculty — in combination with local Boise State instructors.

HBX CORe is an immersive learning experience designed to prepare students to participate fully in the business world — regardless of a student’s background or major. Boise State is the first public university to offer the program, delivering world-class content locally while maintaining affordability and increasing access for all.

FACULTY LEADER
Dr. Kevin Learned
cid.boisestate.edu/hbxcore

TRANSFORMATIVE PUBLIC-PRIVATE PARTNERSHIP

BOISE STATE CREDIT, HARVARD CREDENTIAL

Collaboration with Interfaith Sanctuary to redesign the shelter experience.

Led design thinking with a select team to develop solutions for part-time students resulting in degrees completed at higher rates — findings were presented to the executive enrollment committee at Boise State.

HIGHLIGHTS

PHOTO: Diego Rodriguez, Professor of the Practice and Partner with IDEO design and consulting firm, San Francisco/Palo Alto, CA.

FACULTY LEADER
Dr. Luke Jones
cid.boisestate.edu/b2c

HARVARD BUSINESS SCHOOL CREDENTIAL OF READINESS

BOISE STATE CREDIT, HARVARD CREDENTIAL

Students earn 9 credit hours toward their diploma paying only for the credit hours. No extra fee for the Harvard credential.

This is the same program taken by approximately a third of Harvard Business School’s incoming students either as a requirement or by choice to brush up.

Launched in Fall of 2016 with the first 30 students.

Boise State added a “wraparound” lab to the HBX CORe experience, providing a face-to-face element and localized content.

Graduates and working professionals course fee is $2,500 for 2017-18.

HIGHLIGHTS
INVESTING IN FUTURE ECONOMIC AND SOCIETAL IMPACT BY ACTIVATING OUR MOST INNOVATIVE AND ENTREPRENEURIAL STUDENTS

Innovative products and services are launching with the Idaho Entrepreneur Challenge — a statewide venture competition held each spring, aimed at stimulating entrepreneurship at Idaho’s 22 colleges and universities. Directed by the College of Innovation + Design and College of Business and Economics, and sponsored by Zions Bank, this year’s preliminary round saw 75 applications from students across eight different schools throughout the state. Judges this year included an entrepreneur who made her own successful pitch on the business-themed TV show Shark Tank as well as a long roster of heavy-hitters in the business community, including Matt Oppenheimer, CEO of Remitly, and internet entrepreneur Chuck Davis, former CEO of Fandango. Several of the judges had affiliation with the global design company IDEO headquartered in San Francisco, and companies with a regional, as well as global presence — Keynetics, Micron and Trailhead.

2017 CHALLENGE WINNERS

$15,000 was awarded to Silent Arrow, a biodegradable, heavy-payload, autonomous delivery unmanned aerial vehicle designed to inexpensively carry up to 750 pounds of supplies in support of humanitarian relief and military operations. It was developed by Brian Von Herbulis, a retired Lieutenant Colonel in the U.S. Marine Corps and students enrolled in Boise State’s Executive MBA program.

$15,000 was awarded to Wynderhub, a wire tightening system that quickly fixes the tension in wire fences used in vineyards. Competing in the category of Technology, Consumer Products, Colby Borup from Idaho State University presented for Wynderhub.

Style Her Empowered was awarded $15,000 in the Social, Cultural, or Environmental Impact track. This nonprofit aims to empower women and improve access to education by providing school uniforms and sewing training to young girls in developing countries. Founded by University of Idaho’s Payton McGriff, the company will use its seed money to launch a pilot project this summer in Togo, Africa, providing school uniforms to 800 young girls.

ZIONS BANK

Zions Bank has been an invaluable partner in making the Idaho Entrepreneur Challenge a success since the beginning. Thanks to Zions’ financial support, university students from across the state of Idaho have advanced their business skills and experienced first hand what it takes to be an entrepreneur.