

# BUILT FOR

# YOU

The letters 'YOU' are rendered in a large, bold, sans-serif font. Each letter is filled with a different architectural rendering of the facility. The 'Y' shows an exterior view of a brick building with a curved roof. The 'O' shows an interior view of a modern, bright space with large windows and a balcony. The 'U' shows an interior view of a bright, open-plan space with large windows and a balcony. The background of the entire image is a dark blue, textured wall with a grid pattern.

INTEGRATED SCIENCE AND  
ENGINEERING FACILITY

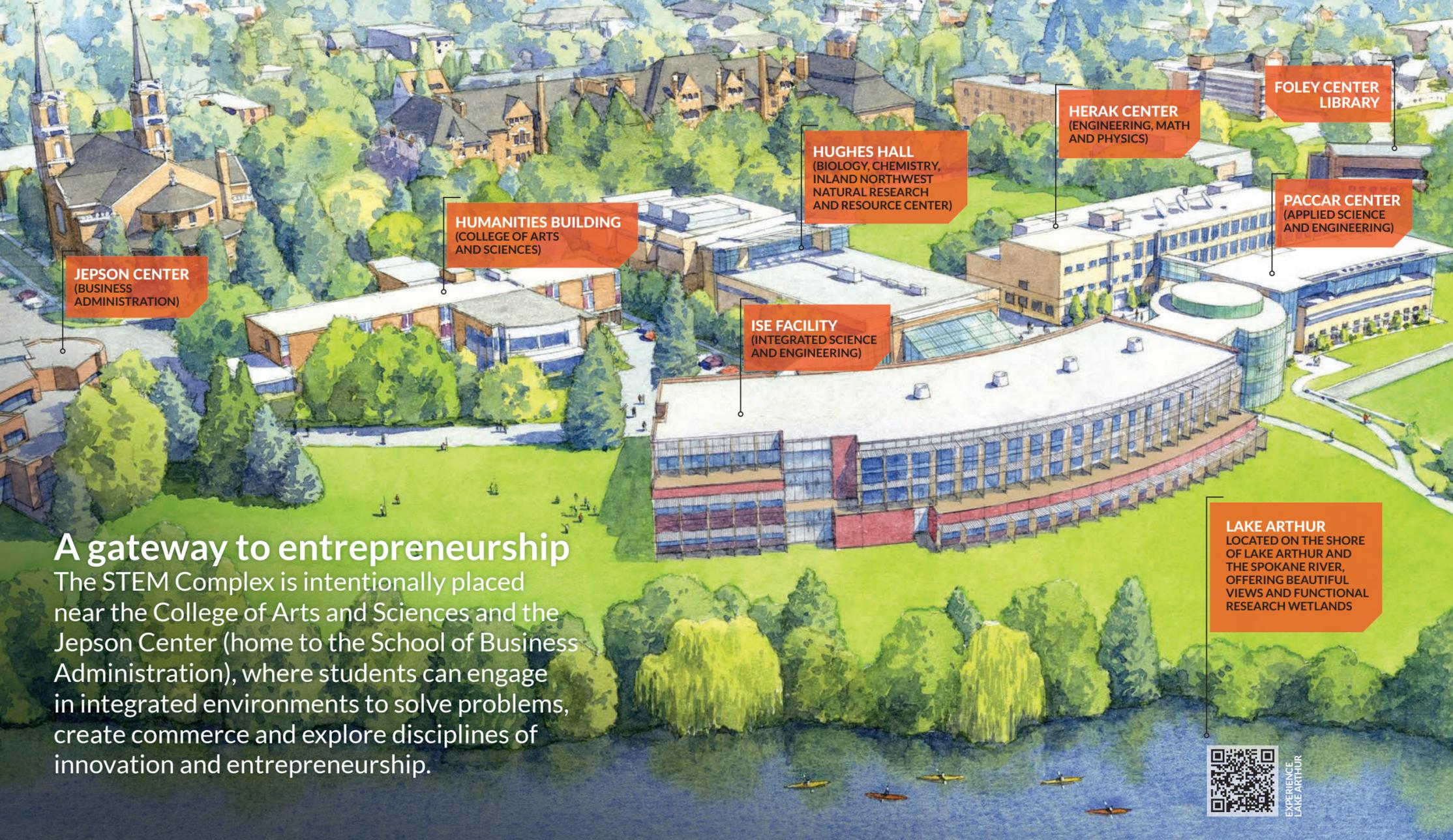
# DESIGNED TO CONNECT

Gonzaga's new Integrated Science and Engineering (ISE) facility completes a quadrangle of buildings on campus that takes STEM education to a new level of engagement and real-world preparation.

Situated between Foley Center Library and the Humanities Building, and connected to the existing Herak Center, Hughes Hall and PACCAR Center, the ISE facility promotes and enables interactions between students and faculty of the **School of Engineering and Applied Science (SEAS)** and the **College of Arts and Sciences (CAS)** to learn and collaborate in unprecedented ways.

Dedicated to innovation in teaching, learning and research, this transparent and Jesuit-inspired space creates opportunity for engineering and applied and natural sciences to live and grow with each other in response to tomorrow's demands.





**A gateway to entrepreneurship**  
 The STEM Complex is intentionally placed near the College of Arts and Sciences and the Jepson Center (home to the School of Business Administration), where students can engage in integrated environments to solve problems, create commerce and explore disciplines of innovation and entrepreneurship.

**JEPSON CENTER**  
 (BUSINESS ADMINISTRATION)

**HUMANITIES BUILDING**  
 (COLLEGE OF ARTS AND SCIENCES)

**HUGHES HALL**  
 (BIOLOGY, CHEMISTRY, INLAND NORTHWEST NATURAL RESEARCH AND RESOURCE CENTER)

**HERAK CENTER**  
 (ENGINEERING, MATH AND PHYSICS)

**FOLEY CENTER LIBRARY**

**PACCAR CENTER**  
 (APPLIED SCIENCE AND ENGINEERING)

**ISE FACILITY**  
 (INTEGRATED SCIENCE AND ENGINEERING)

**LAKE ARTHUR**  
 LOCATED ON THE SHORE OF LAKE ARTHUR AND THE SPOKANE RIVER, OFFERING BEAUTIFUL VIEWS AND FUNCTIONAL RESEARCH WETLANDS



EXPERIENCE LAKE ARTHUR

sq. ft.  
**270,490**

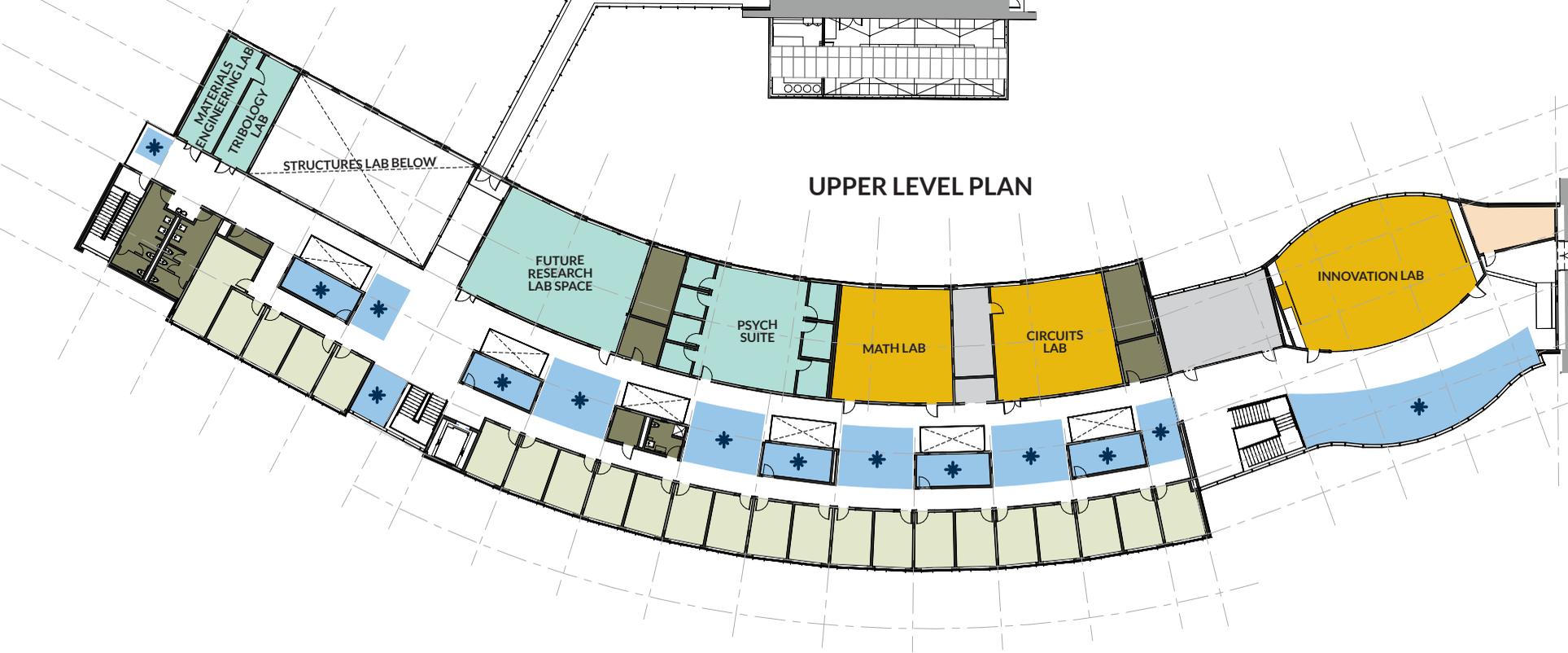
**STEM Complex**

**44% increase** in STEM space with the addition of the ISE facility, including **18 new labs**

Located on Gonzaga's south rim, connecting students to downtown Spokane and the region's businesses, including:

- AVISTA
- BOEING
- BUCK KNIVES
- CITY OF SPOKANE
- COFFMAN ENGINEERS
- HAAKON INDUSTRIES
- INTEGRUS ARCHITECTURE
- ITRON CORPORATION
- KAISER ALUMINUM
- KATERRA
- KNIFE RIVER PRESTRESS
- LUNG TECHNOLOGIES LLC
- NIOSH (NATIONAL INSTITUTE OF SAFETY AND HEALTH)
- OSBORN CONSULTING
- QUANTA SUBSURFACE
- SEL INC.
- SKILLS'KIN
- SPOKANE COUNTY
- WSDOT (WASHINGTON STATE DEPARTMENT OF TRANSPORTATION)





## BUILT TO INNOVATE

### PSYCH SUITE

- The Operant Choice Lab — fostering collaboration between psychology and electrical and computer engineers focusing on psychological choice vulnerabilities in cybersecurity and more
- Positive Emotion and Social Behavior Lab — researching personal well-being outcomes and the psychology of gratitude
- Cultural Psychology Lab — studying psychological consequences of marginalization due to globalization, attitudes toward climate change and public health research

### MATH LAB

- Researching electrical impedance tomography (used for a new type of medical imaging)
- Modeling trees blowing in the wind, algebraic genetics and graph theory (with applications in computer science)
- Studying knot theory, statistical analysis of repeated measurements on each subject (in collaboration with local hospitals) and understanding how individual differences affect overall population dynamics

### INNOVATION LAB

- Fostering innovation and entrepreneurship in senior design and undergraduate research projects
- Promoting collaboration with industry professionals and entrepreneurs

### CIRCUITS LAB

- Demonstrating the fundamentals of electronic circuit elements and networks to mechanical, electrical, computer engineering and engineering management students

### TRIBOLOGY LAB

- Uncovering the fundamentals of surfaces in relative motion at both macro and nano scales
- Developing advanced coatings for aerospace applications and hydrogel-based bearing materials as candidates for advanced prosthesis

### MATERIALS ENGINEERING LAB

- Engaging in fundamental studies of fiber reinforced polymer composites
- Exploring new manufacturing technologies of interpenetrating polymer network adhesives

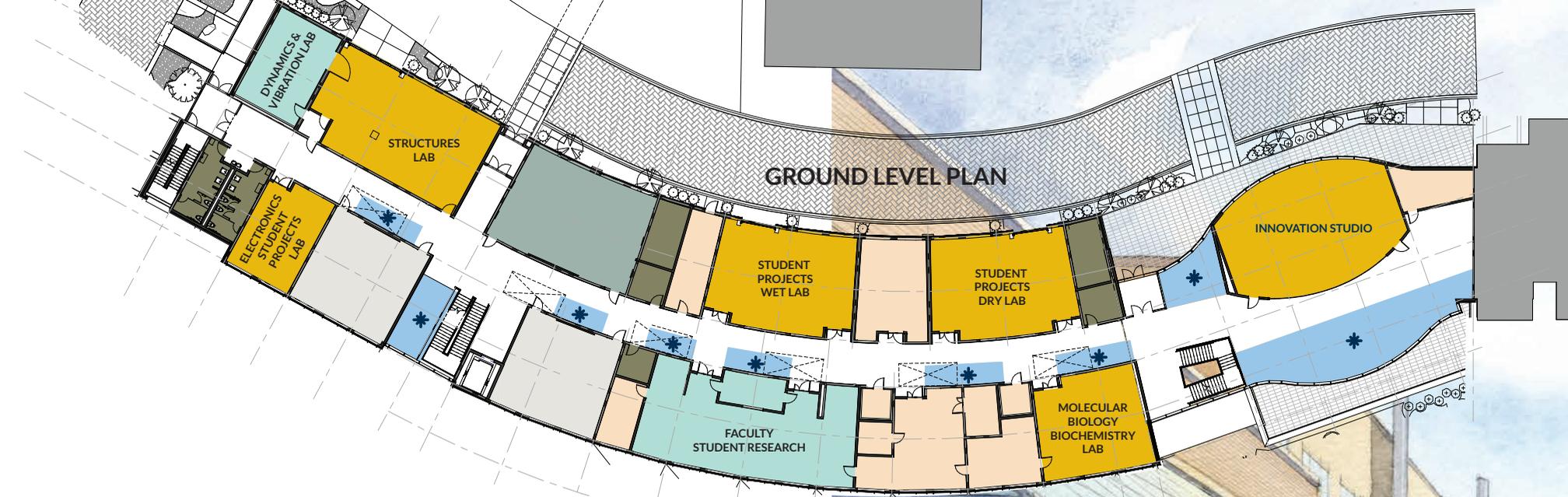


Computing & Engineering Accreditation Commissions

All SEAS undergraduate programs are accredited by ABET

\*  
**34%**  
OF THE TOTAL SPACE IS DEDICATED TO COLLABORATION AREAS

Students can connect and collaborate with each other with ample space to spread out, plan and create



# BUILT TO ENGAGE

## STRUCTURES LAB

- Expanding the capability for full structural and material testing of a scale that enables collaboration with area businesses
- Reducing the embodied carbon footprint in construction materials

## DYNAMICS & VIBRATION LAB

- Uncovering the mechanics of complex systems that move
- Conducting vibration tests on large frames and structures to test their fatigue life

## STUDENT PROJECT WET/DRY LABS

Providing specialized areas for distinct project needs:

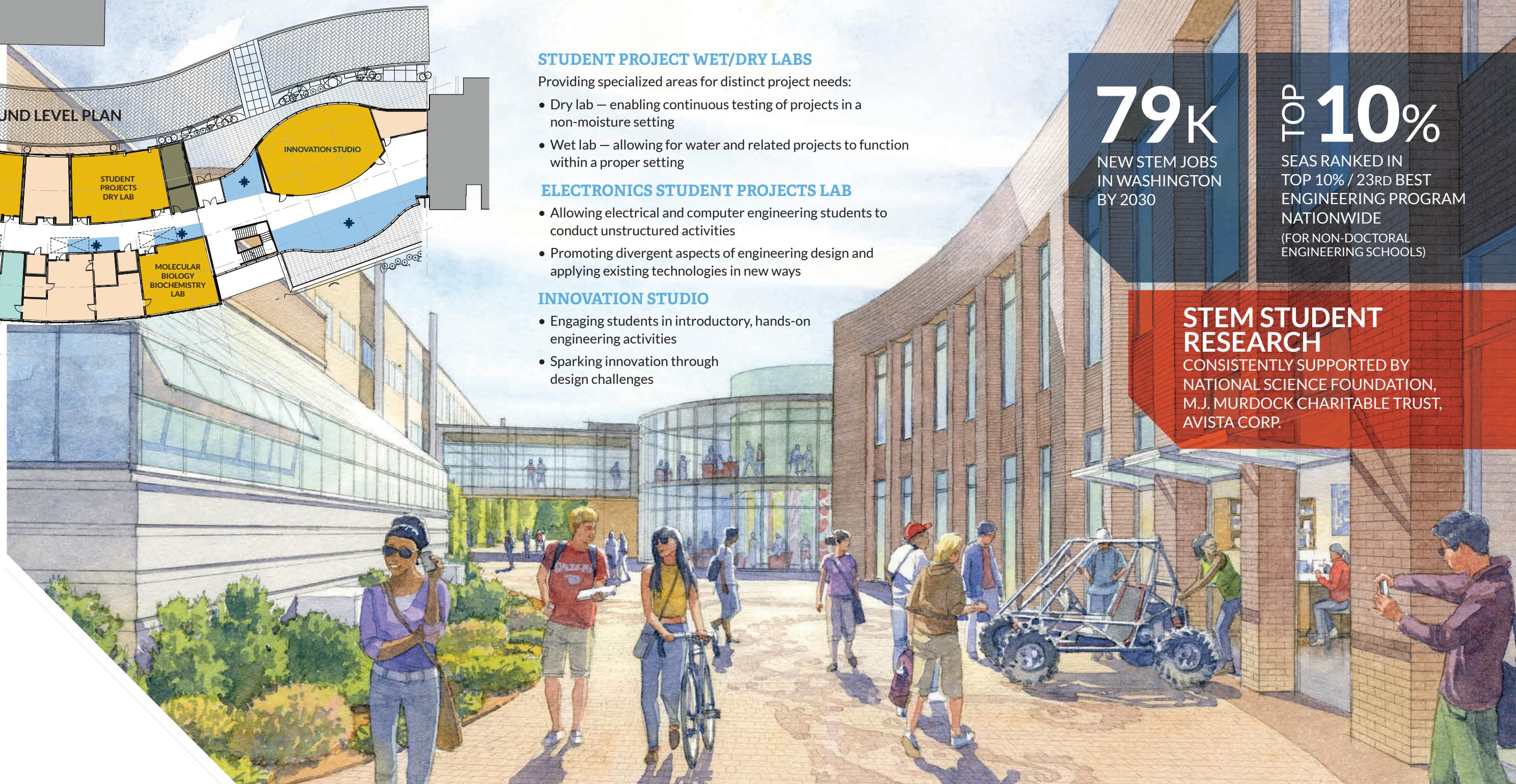
- Dry lab – enabling continuous testing of projects in a non-moisture setting
- Wet lab – allowing for water and related projects to function within a proper setting

## ELECTRONICS STUDENT PROJECTS LAB

- Allowing electrical and computer engineering students to conduct unstructured activities
- Promoting divergent aspects of engineering design and applying existing technologies in new ways

## INNOVATION STUDIO

- Engaging students in introductory, hands-on engineering activities
- Sparking innovation through design challenges



# 79K

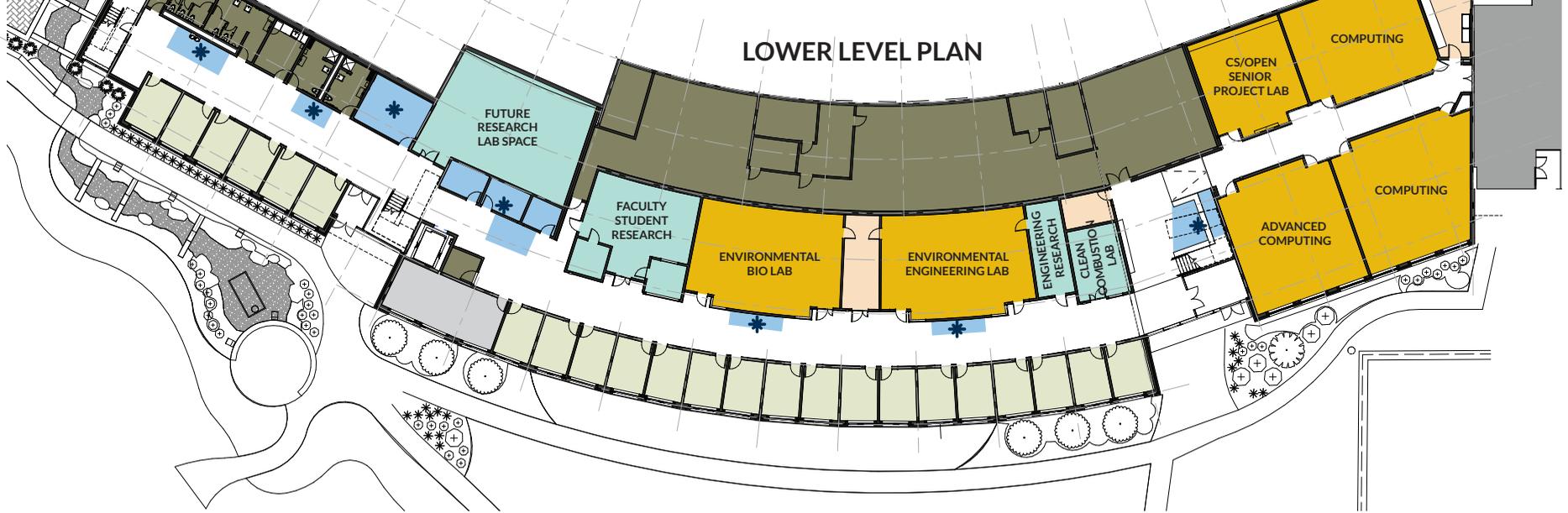
NEW STEM JOBS  
IN WASHINGTON  
BY 2030

# TOP 10%

SEAS RANKED IN  
TOP 10% / 23RD BEST  
ENGINEERING PROGRAM  
NATIONWIDE  
(FOR NON-DOCTORAL  
ENGINEERING SCHOOLS)

## STEM STUDENT RESEARCH

CONSISTENTLY SUPPORTED BY  
NATIONAL SCIENCE FOUNDATION,  
M.J. MURDOCK CHARITABLE TRUST,  
AVISTA CORP.



# BUILT TO TRANSFORM

## COMPUTING LABS

- Testing advances in cybersecurity, data science, artificial intelligence and the Internet of Things
- Accommodating evolving and emerging computing technology needs

## CLEAN COMBUSTION LAB

- Creating cleaner-burning combustion systems
- Improving the efficiency and emission of devices that use promising bio-fuels

## ENVIRONMENTAL ENGINEERING LAB

- Addressing water scarcity, climate change and resource depletion
- Using natural byproducts of agricultural and forestry waste as filtration agent



VIEW A  
FLY-THROUGH  
OF THE ISE  
FACILITY PLANS

Visit [gonzaga.edu/ISE](http://gonzaga.edu/ISE)  
to learn why and how this  
space is being built for you.



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[www.gonzaga.edu/BeAZag](http://www.gonzaga.edu/BeAZag)

