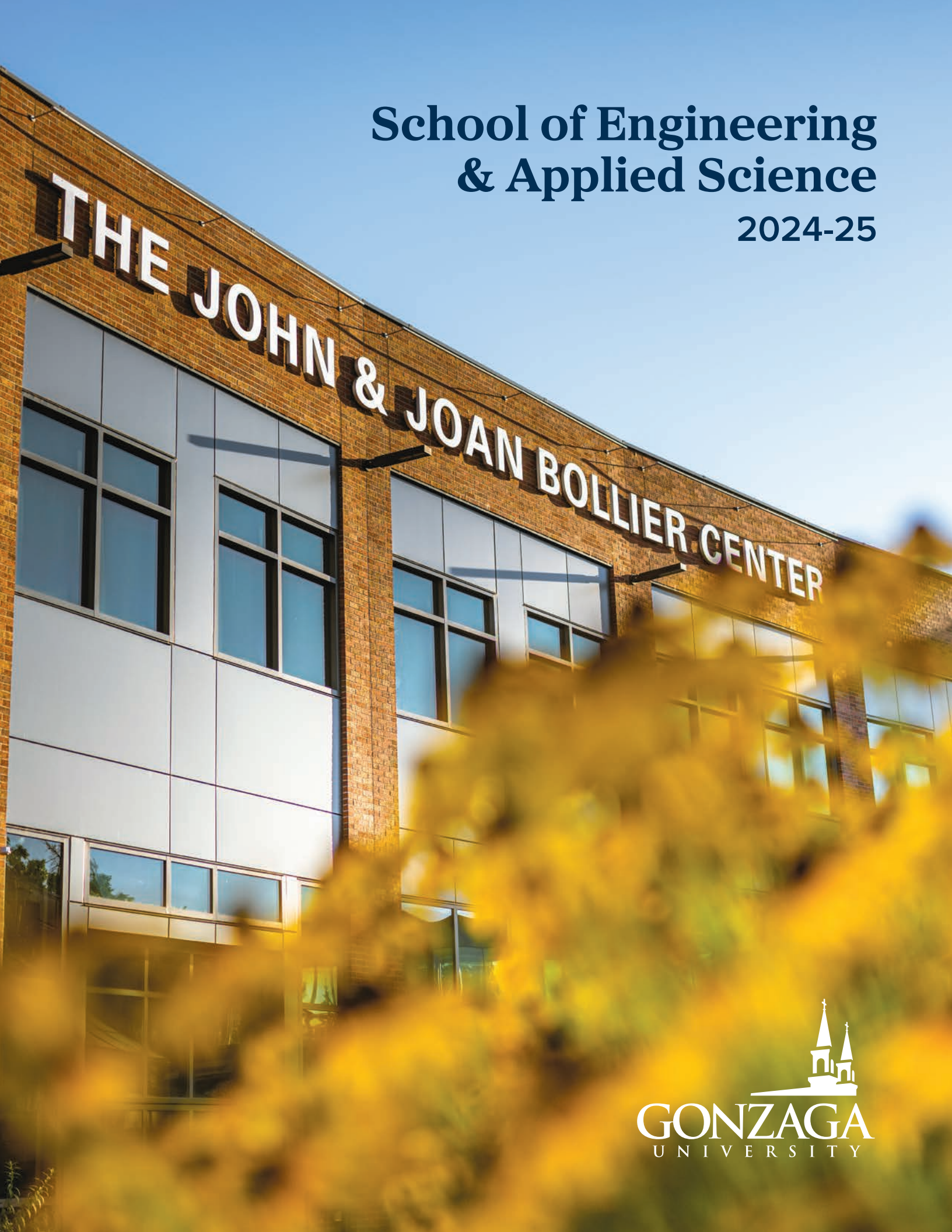
School of Engineering & Applied Science

2024-25



GONZAGA UNIVERSITY

CONTENTS

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A Year of Growth, a Future in Motion

The past year has been both eventful and productive, and it has been my privilege to serve the School of Engineering & Applied Science (SEAS). After 25 years as a faculty member in the Department of Chemistry & Biochemistry, I began my work in SEAS as interim chair of the Department of Mechanical Engineering in AY 2023–24. That experience provided valuable preparation for the dean role, giving me important insight into SEAS's mission, culture, and operations. I have been continually impressed by the dedication of SEAS faculty and staff and the talents of our students.

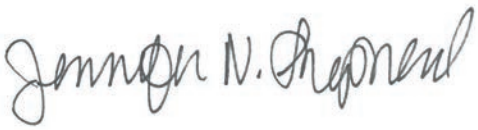
On my first day as interim dean, I met with faculty and staff to identify strengths, challenges, and opportunities for growth. Several priorities emerged: strengthening communication and transparency, enhancing first-year programming, increasing staffing, supporting student clubs, expanding industry partnerships, investing in faculty and staff development, and advancing new programs. Working collaboratively, we made significant progress on all these goals. I also drew on my chemistry connections to foster new collaborations between SEAS and the College of Arts & Sciences.

This Year in Review highlights many activities and accomplishments across the SEAS community. I am especially proud that two new staff positions were created to support the Cadwell Maker Center and the Manufacturing Technology Center, and that four new tenure-track faculty were hired. With generous benefaction and a Gonzaga Community Bank loan, we completed construction of the new Center for Materials Research (CMR) and the Biomedical Engineering Laboratory Suite in August 2025. About half of the equipment required for these spaces has been purchased, supported by loan funding and a National Institute of Standards and Technology (NIST) grant.

We also launched the new Gonzaga Research Opportunities in Math, Engineering, and Computer Science (GRO-MECS) program with private funding and began a campaign to ensure its sustainability in future summers. In July 2025, we piloted the new research-infused SEAS Summer Immersion Program (SSIP) for high school students, featuring four GRO-MECS lab rotations that introduced participants to research in multiple disciplines. Both programs were a great success!

Over the past year, I enjoyed working with faculty and staff to host 14 Preview and SEAS Visit Days, helping recruit 229 new students for Fall 2025. In June, SEAS was also one of eight U.S. institutions featured in the national ASEE-TV video series, highlighting our programs and facilities: https://youtu.be/SD4heZbljoc

I am grateful for the steadfast support of Associate Deans Rhonda Young and Tim Fitzgerald, Assistant Dean Joan Sarles, and the dedicated Dean's Office staff. I look forward to continuing as the SEAS dean next year and building on the momentum of this past year's achievements.



Jennifer N. Shepherd, Ph.D.
Interim Dean, School of Engineering and Applied Science

#1
IN THE NORTHWEST

#23
NATIONAL RANKING

Programs with no doctorates, *2025 U.S. News and World Report*

OVER **800**
SEAS MAJORS

SUCCESS RATE
96%

85%
FINISH IN 4 YEARS

75%
1ST YEAR RETENTION

89%
SENIORS PASS FUNDAMENTALS OF ENGINEERING EXAM

Our Mission

Produce broadly educated and capable engineers and computer scientists who are ready to contribute innovative solutions for a better world, guided by Catholic, Jesuit and humanistic values, a commitment to the whole person, and a focus on social responsibility and ethical leadership.

Support Engineering and Computer Science initiatives through an investment in lab facilities or programs.

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Sara Ganzerli in her Florence classroom.

Engineering Abroad:

A Transformative Experience in Florence

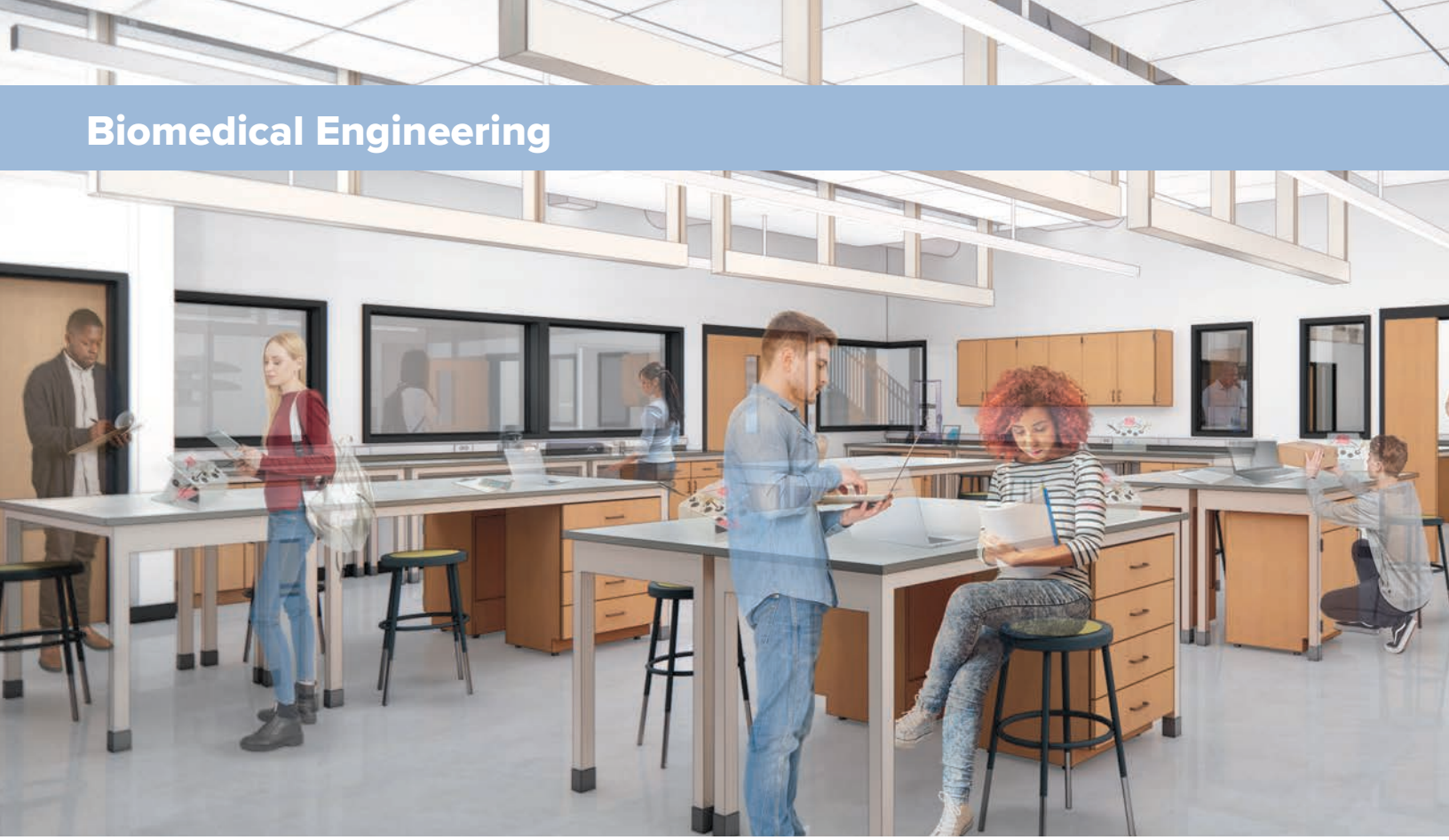
Gonzaga in Florence (GIF) offers students and faculty a unique opportunity to explore their academic disciplines in a rich international setting. Located in the heart of Florence, the birthplace of the Renaissance, the campus provides a vibrant learning environment that blends rigorous coursework with cultural immersion. The facilities include classrooms, art studios, a chapel, and a library, all set within a peaceful garden courtyard.

Starting in 2024, the GIF engineering courses (dynamics and mechanics of materials) are now taught by SEAS faculty. SEAS majors can easily study abroad during the spring of their sophomore year without getting behind in their curriculum. As the first SEAS faculty members to teach in the GIF program, Marc Baumgardner (2024) and Sara Ganzerli (2025) emphasize that the true strength of the program lies in its people.

Baumgardner reflects on how GIF "reinforced just how valuable study abroad can be for both engineering students and faculty." Beyond staying on track academically, students "deepen their understanding of how engineering fits into a broader social, environmental, and cultural context." He adds, "stepping outside the technical or cultural bubble can fundamentally reshape how we think about engineering design and systems."

Ganzerli notes that "the caring staff work tirelessly to guarantee a positive study abroad experience," and the faculty, a diverse mix of Italian and international instructors, are "genuinely dedicated to the academic success of the students." She highlights how Florence itself becomes part of the classroom, like learning about Brunelleschi's ingenious engineering of the Duomo's dome, linking historical innovation with modern technical education.

Together, they highlight how Gonzaga in Florence nurtures academic progress, cultural awareness, and personal growth, providing a life-changing experience that strengthens Gonzaga's Mission of curiosity, community, and global engagement.



Biomedical Engineering Takes Root

Launching Innovation at the Intersection of Engineering and Health

The School of Engineering and Applied Science welcomed its first cohort of biomedical engineering majors in Fall 2024. One of the most interdisciplinary programs at Gonzaga, the Bachelor of Science in Biomedical Engineering melds the engineering disciplines with biology, chemistry, and human anatomy & physiology. The program has already seen strong growth in enrollment after its first year.

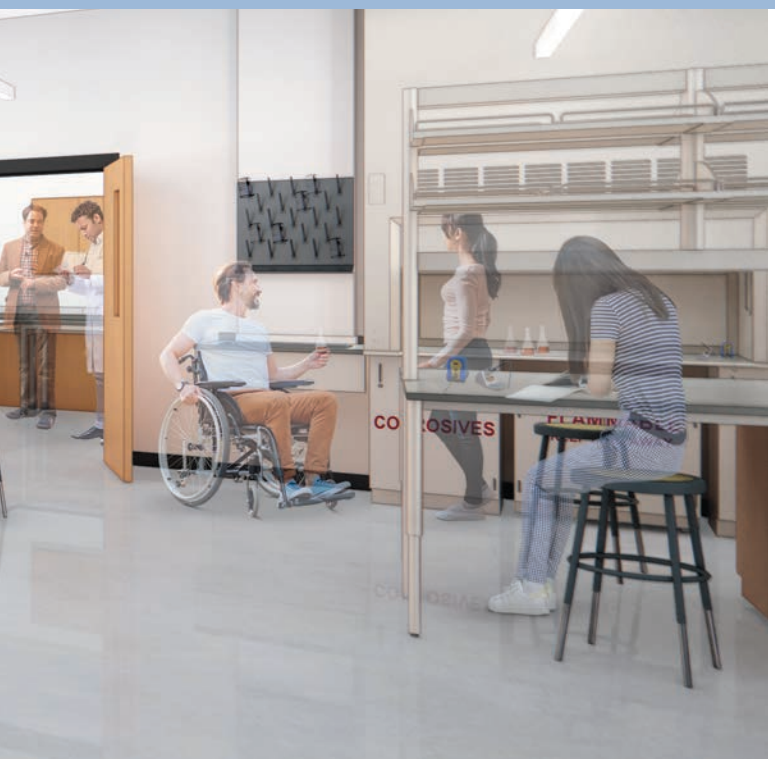
Designed to support diverse career paths, including medical device design, biomaterials, bioelectronics, and pharmaceuticals, the biomedical engineering curriculum offers flexibility in the junior and senior years for students to tailor their studies. For those interested in health care, the program also provides a pathway to medical school, and the UW-GU Health Partnership provides opportunities for Gonzaga undergrads to study and research alongside UW School of Medicine faculty and medical students

Brandon Sargent, Ph.D. is formerly of the Department of Mechanical Engineering and transferred to the newly-launched Department of Biomedical Engineering. He continues to serve as the program director, with research focusing on biomechanics and medical device design.

Marc Baumgardner, Ph.D. is professor and chair of the Department of Mechanical Engineering and will serve as the inaugural Department of Biomedical Engineering chair. Beginning Fall 2025, the department welcomes two new faculty members: Kerry Lane (biomaterials) and Nathan Zavanelli (medical electronics).

Gonzaga has made a strong institutional investment in the success of this new program. Construction of a state-of-the-art Biomedical Engineering Laboratory Suite in the lower level of the Bollier Center was completed in August 2025. This new facility includes a large teaching lab, a tissue culture lab, and two faculty research labs. It will support hands-on learning and faculty-led research across a wide range of biomedical engineering topics.

The new teaching lab will provide students with an advanced, senior-level lab experience, focusing on medical device design, biomedical signal measurement, and system testing. Students will engage in building and evaluating their own medical devices and electronics, an immersive experience that complements classroom learning and prepares them for careers at the intersection of engineering and human health.



Integrus architectural rendering

"Biomedical engineering is one of the most interdisciplinary programs here at Gonzaga. We're pulling in expertise from health sciences, chemistry, biology, math and other engineering disciplines to allow students to enter any of the many different disciplines and fields within biomedical engineering."

— Program Director Brandon Sargent

Biomedical Engineering: gonzaga.edu/biomed

Support Biomedical Engineering through an investment in cutting-edge lab equipment or academics.

Donate: gonzaga.edu/give/seas

Biomedical Engineering Leadership

Brandon Sargent serves as the director of the biomedical engineering program. Sargent received his Ph.D. in mechanical engineering at Brigham Young University and has worked at Gonzaga in the Department of Mechanical Engineering until transitioning into this role and new department in 2025. Sargent has expertise in biomechanics, medical device development, entrepreneurship, and product design. His research focuses on accessibility equipment, primarily manual wheelchair design. He also owns a medical device startup working in laparoscopic tooling and improving surgical implants for chest wall deformities.

Marc Baumgardner serves as chair of both the Mechanical and Biomedical Engineering departments, leading efforts to grow the new biomedical engineering program and support interdisciplinary research at the interface of energy, health, and environmental impact. Baumgardner earned dual B.S. degrees in chemistry and chemical engineering from the University of West Georgia and the Georgia Institute of Technology before working in industry as a process specialist and technical expert at UOP, a Honeywell company. He completed his Ph.D. at Colorado State University in mechanical engineering with a research focus on renewable fuels and advanced internal combustion engines. Baumgardner joined Gonzaga's mechanical engineering faculty in 2015 and was promoted to full professor in 2025. His teaching and research span thermal-fluid sciences, combustion, and sustainability, with a particular emphasis on clean energy systems and atmospheric emissions reductions.

Expanding Horizons

Computer Science Department Launches New Data Science and Cybersecurity Programs

Over the past year, the Department of Computer Science initiated new degree programs and significantly revised existing curricula to better align with the evolving tech landscape. These updates reflect growing demand for specialized expertise in data science, cybersecurity, and software engineering.

In Fall 2024, the new **Bachelor of Science in Data Science** began. This interdisciplinary program combines coursework in computer science, mathematics, and application domains such as marketing, economics, and environmental studies. Students explore the full data science lifecycle, including data collection, cleaning, analysis, visualization, statistical modeling, machine learning, and model deployment. The program emphasizes communication and ethics and culminates in a year-long, data-intensive capstone project.

In Fall 2025, the department launched a **Bachelor of Science in Cybersecurity.** This technical degree prepares students to design secure software, protect networks, and conduct digital forensics. Coursework includes cryptography, secure systems, and the Internet of Things (IoT). Students will complete a senior design project, guided by faculty and co-sponsored by professionals from the cybersecurity industry.

Also debuting in Fall 2025 is the **Master of Science in Data Science**, an in-person graduate program focused on machine learning, AI, statistical modeling, communication, and project management. Students use the department's new GPU server to train and fine-tune neural network-based models. The program includes an accelerated option that allows Gonzaga undergraduates to earn both a bachelor's and a master's degree in five years. This pathway is open to students from various majors who meet the prerequisites in statistics, calculus, and programming.

These new programs complement the existing **Bachelor of Science** and **Bachelor of Arts in Computer Science**, while also responding to strong market demand for graduates with skills in data analytics, secure systems, and AI-enhanced software development.

A major revision of the Bachelor of Arts in Computer Science (formerly Computer Science and Computational Thinking) features a streamlined structure, including fewer general electives and reorganized technical electives into thematic clusters such as software development, data science, and machine learning. New required courses include computer organization, databases, networks, and algorithms, along with a leadership or management elective offered in partnership with faculty from other departments.

To further support student learning and reflect current industry standards, the department is transitioning its introductory programming sequence from C++ to Python. Because Python is widely used in industry and academia, particularly in data science and AI, this change will make foundational programming concepts more accessible.

These efforts represent a strategic transformation of the Computer Science department's academic portfolio, positioning graduates for success in fast-moving, tech-driven fields while reinforcing Gonzaga's commitment to innovation, ethics, and interdisciplinary learning.

Computer Science: gonzaga.edu/compsci

Computer Science Chair Yanping Zhang, Ph.D.

Shaping Tomorrow

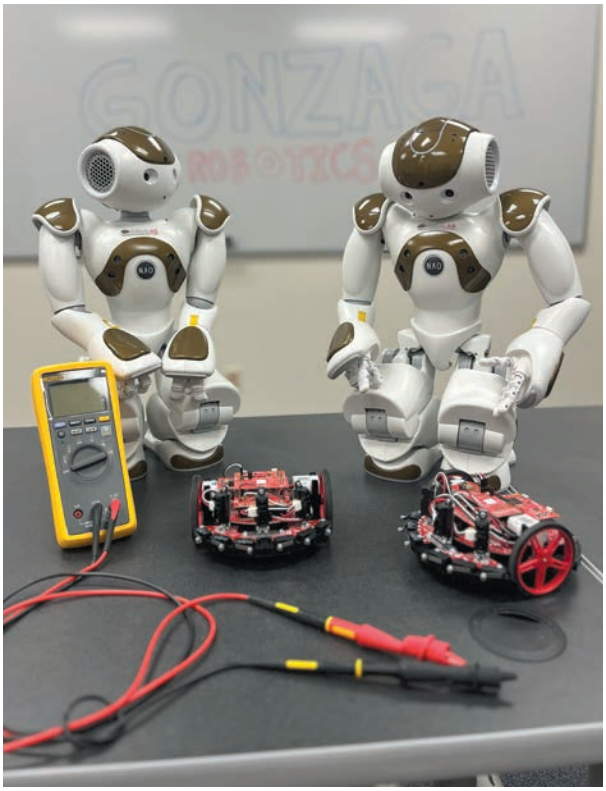
Electrical & Computer Engineering Introduces Robotics and AI Programs

The Department of Electrical and Computer Engineering (ECE) at Gonzaga University has taken an exciting leap forward with the launch of new academic pathways in robotics and artificial intelligence (AI). These cutting-edge programs include both concentrations for ECE majors and interdisciplinary minors for students across the University, all designed to prepare graduates for the rapidly evolving technological landscape.

The **Robotics Concentration** and **Minor**, introduced in Fall 2024, equips students with hands-on experience in intelligent systems, embedded control, and autonomous navigation. Supported in part by a generous grant from Boeing, the new Robotics Lab features car robots, robot dogs, and humanoid robots – offering students opportunities to design, test, and innovate in real-world environments.

Debuting in Fall 2025, the **Applied AI Concentration** and **Minor** respond to the growing demand for AI-literate professionals across diverse fields such as health care, robotics, finance, and environmental science. Courses such as AI-powered automation, machine learning in biomedicine, and autonomous mobile robots provide students with practical and ethical grounding in the development and deployment of intelligent systems. A newly-established Applied AI Lab, supported by a significant grant from NIST, provides self-driving platforms for students to experiment with complex AI algorithms in realistic settings.

By offering interdisciplinary minors and in-depth technical concentrations, the ECE department is making robotics and AI education accessible to a wide range of students – from business and biology majors to those pursuing traditional engineering degrees. These efforts reflect Gonzaga's Mission to deliver education that is both innovative and human-centered, empowering students to shape an increasingly automated world in service of the common good.



Humanoid robot "children," the latest addition to the Robotics Lab in Herak.

Electrical & Computer Engineering:
gonzaga.edu/ece

AI Research Intern tests algorithms in a traffic setting.

Integrus architectural rendering

Launching the Center for Materials Research (CMR)

Advancing Innovation, Industry Partnerships and Student Learning

The Center for Materials Research (CMR) is a new centralized, shared-user facility in the Bollier Center that provides unique opportunities for development, characterization and deployment of novel materials-centered technologies. It is home to state-of-the-art analytical instrumentation for mechanical and chemical characterization of surface and bulk material properties across length scales.

The CMR will initially be equipped with 11 new instruments, reflecting an investment of nearly $1.75 million, which allow for mechanical (static and dynamic), morphological, thermal, thermogravimetric and spectroscopic analyses of materials. These include: a Fourier transform infrared microscope, a nano-isothermal calorimeter, nanoindenter, scanning laser vibrometer, differential scanning calorimeter, thermogravimetric analyzer, confocal Raman microscope, dynamic mechanical analyzer, dynamic light scattering system, surface area and pore size system analyzer, in addition to large-scale MTS equipment which will complete the Structural High Bay Laboratory.

Beyond instrumentation, the CMR represents a cluster of interdisciplinary, affiliated faculty and staff experts at Gonzaga University with specific expertise on these tools, and wide-ranging technical expertise in engineering, chemistry & biochemistry, biology and environmental studies. A new CMR lab manager position held by Scott Economu, a staff member in the Department of Chemistry & Biochemistry, provides dedicated personnel for instrument maintenance and management. These in-house instruments and technical experts will help facilitate new academic (internal and external to Gonzaga) and industry partnerships. The CMR therefore serves as a test lab, accessible to existing and potential partners in the broader Inland Northwest region, which includes existing industries and possible future ventures (such as the Tech Hub/ American Aerospace Materials Manufacturing Center).

Through each of the collaborations, the CMR aims to advance fundamental scientific knowledge, accelerate materials innovation and product development. Perhaps most importantly, the CMR provides new, transformative learning opportunities for Gonzaga University students through research and instruction-based experiences. It also enables Gonzaga to contribute to the STEM workforce training in the region more broadly.

The Center for Materials Research: gonzaga.edu/cmr

Support Research through an investment in cutting-edge lab equipment or programs.

Donate: gonzaga.edu/give/seas

NIST Investment Elevates Gonzaga's STEM Infrastructure

The National Institute of Standards and Technology (NIST) granted SEAS $1 million in funding for research infrastructure in the new Bollier Center for Integrated Science and Engineering.

The funding is part of a $1,846,500 grant shared with the College of Arts & Sciences. NIST is a federal agency dedicated to advancing innovation and economic competitiveness through the development of technology, metrics, and standards.

The funding enabled the acquisition of cutting-edge equipment across multiple departments. For Environmental Engineering, an Aqualog Fluorimeter and a Total Organic Carbon/Total Nitrogen (TOC/TN) Analyzer were added to expand laboratory instruction and environmental research capacity. The Manufacturing Technology Center was outfitted with a state-of-the-art HAAS five-axis CNC machine. The Robotics and Applied AI Labs were upgraded with a Quanser self-driving car studio, mobile robotics platforms, and humanoid robot "children" for advanced experimentation and learning.

Support for the new Center for Materials Research (CMR) included a scanning laser vibrometer and a differential scanning calorimeter, essential tools for high-precision materials characterization.

In addition, a high-performance GPU server and chassis were acquired for the Computer Science programs, in collaboration with the Institute for Informatics & Applied Technology. Linux servers and computers were also procured to support projects within the Electrical and Computer Engineering Department.

This transformative investment has significantly strengthened SEAS's research enterprise, elevated hands-on learning opportunities for students, and deepened Gonzaga's commitment to interdisciplinary innovation.

Kyle Shimabuku, Ph.D. uses the Horiba Aqualog to characterize contaminants in wildfire-impacted drinking water sources.

Below: Beau Grillo, manufacturing support manager, operates the new 5-axis CNC in the Manufacturing Technology Center.

24-25

Welcome New Faculty

Brooke Colburn, M.S.

Brooke Colburn joined SEAS as a lecturer in mechanical engineering and engineering management. With over 15 years of industry experience, she brings a deep background in engineering management to the classroom. She holds an M.S. in aeronautics and astronautics from Stanford University and a B.S. in mechanical engineering from Walla Walla University.

Her career spans cutting-edge projects from developing Mars sample retrieval technology at NASA's Jet Propulsion Laboratory, to advancing hypersonic systems at a Spokane-based startup, to managing software testing teams for self-driving cars at Cruise in Silicon Valley.

She draws on this diverse experience to guide and support students. Committed to their success, she encourages students to see her as a resource for academic advice, career planning, and beyond.

Anbara Lutfullaeva, Ph.D.

Anbara Lutfullaeva joined SEAS as an assistant professor of mechanical engineering. She earned her Ph.D. in mechanical engineering from Ohio University, where her research focused on the experimental testing of hydrodynamic thrust bearings under dynamic loading conditions.

She continues this line of work at Gonzaga University, where she is developing an advanced experimental test bed capable of applying high loads and high-frequency dynamic forces to oil film bearings. Her goal is to generate robust experimental data that can also be used to train AI and machine learning models for predicting bearing performance.

In addition to her work on bearings, she plans to expand into robotics and build an interdisciplinary research group, mentoring undergraduate students through hands-on, collaborative projects.

Yu Wang, Ph.D.

Yu Wang joined SEAS as an assistant professor in computer science. She received her M.S. and Ph.D. degrees in computer science and engineering from the University of Aizu, Japan.

Wang was a researcher at Waseda University (Japan) before joining the National Institute of Advanced Industrial Science and Technology (AIST Japan). Captivated by how algorithms and software could automate complex tasks, she specialized in programming and system design.

At Gonzaga, Wang strives to integrate research and industry trends into her teaching, fostering critical thinking, problem-solving, and hands-on learning to practice applying theoretical concepts in meaningful ways. Her research interests include the Internet of Things, AI for sustainable materials and industrial robotics systems.

Nathan Zavanelli, Ph.D.

Nathan Zavanelli joins SEAS as an assistant professor in biomedical engineering. He earned his Ph.D. in bioengineering from the Georgia Institute of Technology, where he received NSF Graduate Research and ARCS Fellowships, and numerous awards such as the Provost Award for Innovation for work on skin-like electronics and sensors.

His postdoctoral research at Carnegie Mellon University focused on printing nanomaterial-based stretchable conductors and sensors. He is primary author on five patents, including one for Huxley Sansa, a medical device with FDA 510(k) clearance.

At Gonzaga, his research aims to replace rigid, bulky, and wired medical electronics with soft, conformal, and stretchable devices. He aims to mentor a multifaceted team of undergraduates interested in materials, mechanics, electronics, signal processing, and medical devices.

Mutasem Alzoubaidi, Ph.D.

Mutasem Alzoubaidi joins SEAS as an assistant professor of civil engineering. He earned his Ph.D. from the University of Wyoming, where his research focused on the operational and safety performance of innovative transportation systems in connected vehicle environments.

A licensed Professional Engineer, Alzoubaidi brings academic and industry experience from both the U.S. and the Middle East. He has held roles as a traffic project engineer at HNTB Corporation, a postdoctoral fellow at Georgia Tech, a transportation planner in Jordan, and most recently held an academic position at Al-Balqa Applied University.

Alzoubaidi has led multimillion-dollar research projects, developed new interchange designs, mentored students, and published widely in leading journals and conferences. At Gonzaga, he will continue his research in traffic modeling and simulation, intelligent transportation systems, and safety analysis.

Kerry Lane, Ph.D.

Kerry Lane joins SEAS as an assistant professor of biomedical engineering. She earned her Ph.D. in mechanical engineering from the University of California, Santa Barbara, where she was recognized with the NSF Graduate Research Fellowship and the UC Chancellor's Fellowship.

Her doctoral research focused on developing platforms to improve the maturity of stem cell-derived heart muscle cells. Following her Ph.D., Lane joined the Department of Mechanical Engineering at California Polytechnic State University, San Luis Obispo, as a post-doctoral teaching scholar. During her two years at Cal Poly, she taught courses including senior design, statics, and dynamics.

At Gonzaga, Lane's research will focus on mechanobiology - the study of how mechanical inputs, such as force or shear stress, influence biological processes at the cellular level.

Sophina Luitel, Ph.D.

Sophina Luitel joins SEAS as an assistant professor of computer science. She earned her Ph.D. in computer science from North Carolina Agricultural and Technical State University. Her research focused on audio sentiment and emotion classification using machine learning algorithms and spectrogram-based approaches.

Before her Ph.D., she worked as a business intelligence analyst. She led data system transitions, performed data analysis for informed decision-making, and developed effective data visualization tools.

At Gonzaga, Luitel aims to advance affective computing by combining computing, psychology, and design. Her goal is to create systems that detect and respond to human emotions, enabling more intelligent and user-aware applications.

New Faces *in SEAS Staff*

Daniel Clark joined Gonzaga in October 2024 as the maker space and lab manager. He is a machinist by trade with extensive experience in advanced manufacturing, design, and prototyping. He spent much of his life in Europe, primarily in France, and brings a global perspective to his work. For over seven years, he taught in the Department of Aerospace at North Idaho College, serving as an advanced manufacturing instructor. Since then, he was a consultant for various companies, specializing in machining and prototype development. What he enjoys most about his Gonzaga role is the opportunity to help others, whether it's guiding students through design and 3D printing projects, or supporting faculty and staff with their work. He also appreciates the chance to teach and share his expertise with the Gonzaga community. He continues to teach evening classes and develops curriculum for an apprenticeship program in machining and industrial mechanics.

Kevin Matulis joined SEAS in October 2024 as a machinist, following an untraditional path from earning a biology degree at Eastern Washington University to a career in manufacturing. After completing the machining technology program at Lake Washington Institute of Technology, he was a prototype machinist in industries ranging from consumer electronics to medical devices. These roles built his expertise in diverse materials, manufacturing techniques, and design-for-manufacturing challenges. In Gonzaga's Manufacturing Technology Center (MTC), Kevin supports student clubs, senior design teams, and faculty research. He works closely with students to coordinate projects, review designs and assemblies, and advise on manufacturability, whether in-house or outsourced. His prototyping background shapes his hands-on, collaborative approach, and he is passionate about fostering student growth through practical, project-based learning.

Colleen McLean is the new assistant to the dean and office manager in the SEAS Dean's Office. She joined SEAS in May 2025 after 12 years as a program assistant in the College of Arts & Sciences. Her previous experience includes 20 years in a variety of mission-driven organizations doing everything from processing federal payments to grain farmers to leading adult faith formation activities, from coordinating advisory boards to creating marketing media, and from event planning to faculty engagement. She now contributes to the success of SEAS through administrative support to the Dean, the SEAS units, campus colleagues, industry partners, alumni, and community stakeholders who work together to make Gonzaga University a great place to learn. If you need a meeting with the Dean, assistance with internal or external communication, a liaison across campus, or a question about the general administrative scope of the Dean's Office, contact her today!

Bob Turner started as the new program manager for the Center for Engineering Design and Entrepreneurship (CEDE) in June 2025. He is a licensed civil engineer with over 25 years of experience in public service and infrastructure. A graduate of Gonzaga University with a bachelor's degree in civil engineering, he also holds master's degrees in public administration and business administration from Eastern Washington University. Bob has spent his career serving Spokane County, the City of Spokane, the City of Spokane Valley, the Washington State Department of Ecology, and Spokane Public Schools. His work has focused on development and traffic engineering, public infrastructure, and environmental services. Bob has maintained a strong connection to Gonzaga University for over 30 years. A former president of Gonzaga's ASCE student chapter, he has remained active in ASCE throughout his career and now serves as practitioner advisor to the student chapter.

Groundbreaking ceremony on May 9, 2025 highlighted the industry and Gonzaga partners making the project possible.

AISC Steel Sculpture:
Engineering Tool in Art Form

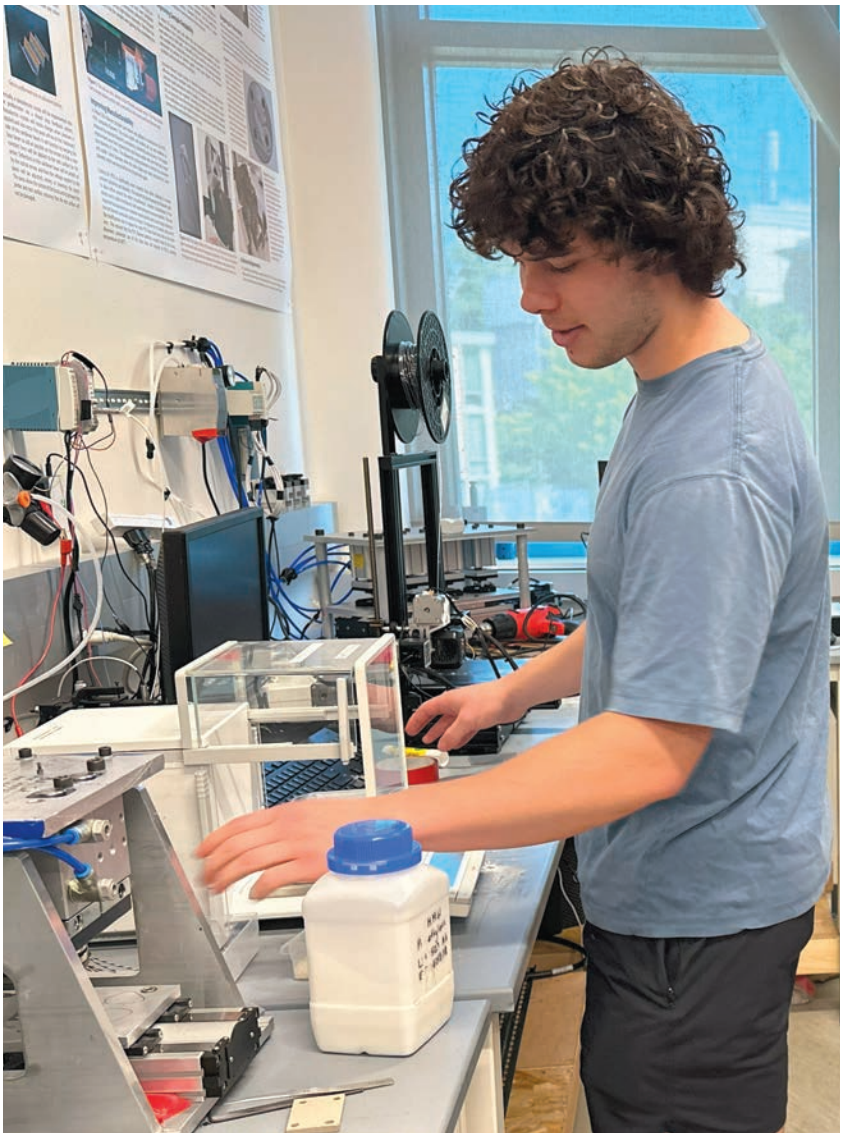
The south entrance to the Bollier Center gained a steel sculpture during summer 2025. Gonzaga joins more than 170 campuses with the structural learning tool, developed by the American Institute of Steel Construction (AISC).

The sculpture showcases a variety of structural steel connection types, providing students with a hands-on, visual supplement to their coursework in structural engineering and construction. It is also a lasting symbol of collaboration between academia and industry.

An unveiling ceremony took place on August 25 with the industry partners that made the project possible. **Metals Fabrication Company** fabricated each of the steel pieces, **DCI Engineers** designed the concrete foundation, and **Walker Construction** oversaw the final installation.

Interim Dean Jennifer Shepherd led the coordination with valuable support from Joshua Schultz, Ph.D, associate professor of Civil Engineering, and Tomson Spink, associate vice president of Gonzaga Plant Operations.

Expanding Research Opportunities



An undergraduate researcher in the Tribology Lab mixes polymer powders to synthesize custom 3D printer filament.

GRO-MECS

Fostering Innovation, Leadership and Research Skills

The Gonzaga Research Opportunities in Math, Engineering, and Computer Science (GRO-MECS) program launched in Summer 2025 to provide undergraduates with faculty-led, project-based experiential learning opportunities. These hands-on opportunities help students become agile, innovative thinkers who are prepared to adapt to emerging technologies and evolving knowledge.

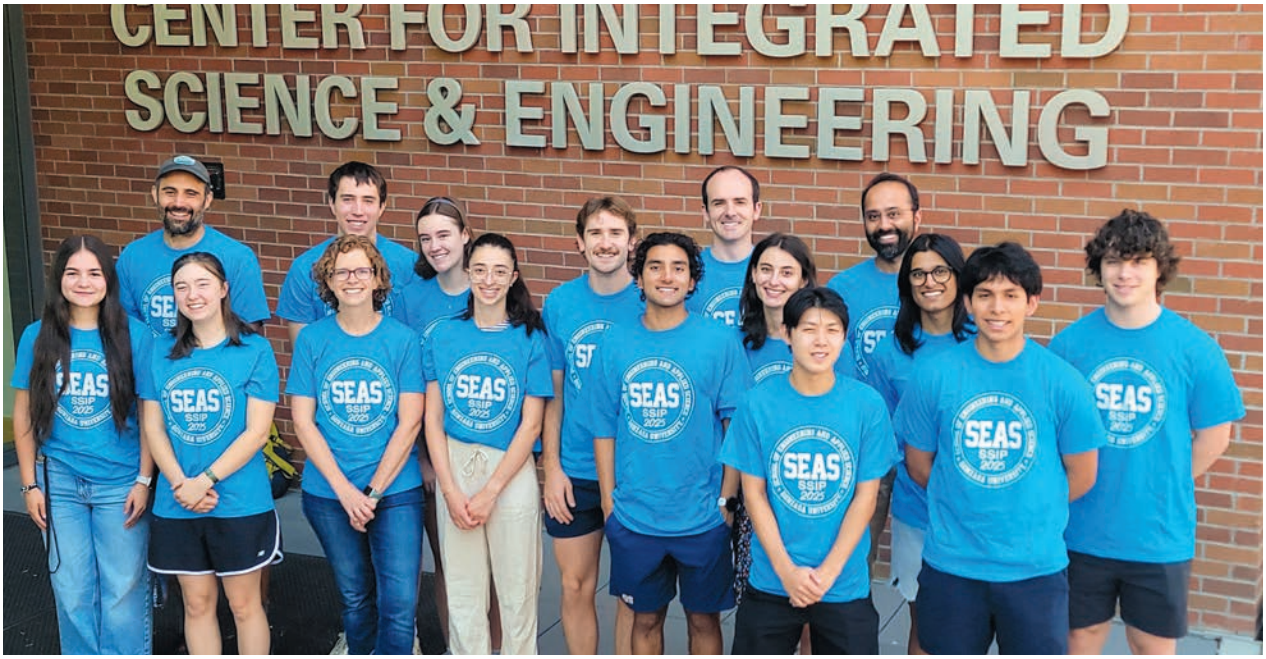
Nearly 70 students applied for the inaugural program. Twelve were selected to join four faculty labs for 8- to 10-week projects: Mosaic Knot Theory (Kate Kearney), Tribological Properties of Additively Manufactured Polymer Composites (Harman Khare), Suspension System for Wheelchairs (Brandon Sargent), and Wildfire-Related Water Pollutants (Kyle Shimabuku).

As part of GRO-MECS, each lab hosted four research rotations during the one-week SEAS Summer Immersion Program (SSIP) in July.

GRO-MECS Research:
gonzaga.edu/gro-mecs

Students regularly met to present their research progress.

GRO-MECS students listen to Daniel Clark, lab manager of the Cadwell Maker Center



GRO-MECS students and professors pose during their week mentoring high school students interested in STEM careers.

The program began with faculty presentations outlining their research areas to help students, many participating in research for the first time, understand the range of projects and learn about scientific communication. Each lab group participated in midsummer research talks, presenting progress, challenges, and plans in a low-stakes setting. Q&A discussions with peers and non-expert faculty sparked valuable dialogue and brainstorming. At the end of the program, students gave final presentations to highlight their contributions and connected their work to broader impacts.

Two seminar series enriched the experience: Vox Alumni and Professional Development. Vox Alumni hosted virtual conversations with Gonzaga alumni including Steven Mamolo (University of Michigan), Lindsey Young (Northeastern), Grace Lilje (DuPont), Sarah Jones (SpaceX), Allie Alvarez (E4C/ASME), and Jessica Vazquez (Ridolfi). Each shared insights about their paths from Gonzaga to graduate study, industry, or community work. The series featured campus experts like Nicole Gustavsen (Foley Library) and Shannen Cravens (chemistry and biochemistry), with sessions on AI-supported literature reviews and effective communication of scientific research.

GRO-MECS represents an exciting new chapter in Gonzaga's commitment to research and innovation. The first year of the program was made possible through the strategic use of prior benefaction savings and has opened doors for students in STEM fields not currently supported by existing internally funded programs. We are actively fundraising to continue to support this valuable program which will require about $125K per year to sustain.

Power Innovation
through an investment
in student development
through GRO-MECS.

Donate: gonzaga.edu/give/seas

A student installs a prototype suspension system to a wheelchair.

SSIP students explore watershed modeling at the Augmented Reality Sandbox Interactive Sand Table in Gonzaga's Water Resources Lab.

Cultivating Curiosity
High School "SSIP" of STEM and Research

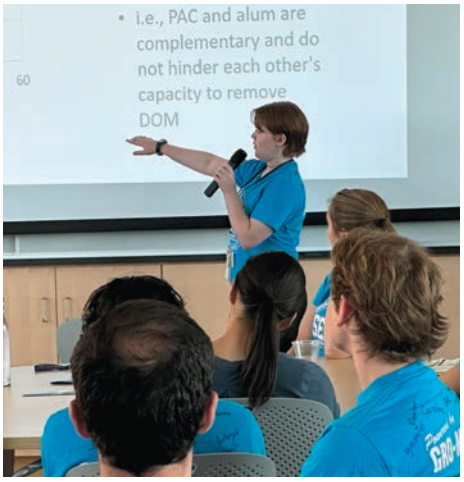
For the fourth consecutive summer, rising junior and senior high school students explored engineering and computer science in the one-week SEAS Summer Immersion Program (SSIP). This year, 16 students from across Washington state and beyond gathered for the residential camp.

Throughout the week, SSIP participants engaged in collaborative research alongside Gonzaga undergraduates in the GRO-MECS program. Over the first four days, students rotated through all four GRO-MECS projects, culminating in a research symposium where they proudly presented their work to family members.

Interactive STEM activities included programming robots, using the Scrum framework in an engineering management simulation, coding in Python to customize LED matrix panels, exploring river system complexities in the lab to understand infrastructure's impact on natural environments, and shorter hands-on experiences with traffic flow modeling and soldering printed circuit boards. College prep sessions — including admissions and financial aid presentations - provided insights into the path to higher education, with a spotlight on attending Gonzaga University.

Each evening featured guest speakers from a range of engineering and computer science fields, who shared inspiring stories about their career journeys. The speakers and their discipline areas were: Glorilyn Maw (civil engineering, '90), Lyssa Blood (electrical engineering, '21), Monica Fishburn (mechanical engineering, '19) and Rebecca Long (computer science). The final night offered a well-earned chance to relax, connect with new friends, and enjoy a game night in the dorms.

Notably, this year marked the first time SSIP students had mentorship by undergraduates during research rotations — a shift that received enthusiastic praise from participants.



A SSIP symposium presentation.

The SSIP students' performance at the culminating symposium was impressive, especially given the short duration of the program. With such success, SEAS hopes to continue building on this "research-infused" format in future summers.

SEAS Summer Immersion Program:
gonzaga.edu/ssip

A SSIP student in the Tribology Lab mounting a composite polymer sample for a tribometer wear test.

Kyle Shimibuku, associate professor of Civil Engineering, talks with a SSIP research group about his work in low-cost ways to clean drinking water.

Alumni Success Stories

Nicole Zipp (‘22)

Nicole Zipp (nee Stanton, ’22, Civil Engineering) said yes to a chance at summer academic research. That experience ignited a passion for environmental engineering and helped develop her critical thinking, problem-solving skills, and confidence.

In Nicole’s junior year, she took Dr. Kyle Shimabuku’s course in environmental engineering. That led to a spot on his bonechar research team, exploring how well charred bones remove excess fluoride from groundwater. The group’s research was published in the journal Water Research with Nicole listed as a co-author -- a significant achievement for an undergraduate.

“Being able to say that I’m published on something is absolutely not something that most undergraduate students can say. If you have that opportunity, it’s great to put on your resume and have in your back pocket.”

Nicole is a process engineer at Black & Veatch, participating in a rotational program that allows her to explore various aspects of civil engineering. She says she regularly uses the skills honed doing faculty-led research at Gonzaga.

“I think our research taught me how to think through a problem critically and focus on the questions that need to be asked to solve the problem. I also believe that both Gonzaga as a whole and my experience doing research taught me how to be an independent worker. Being able to problem solve through a task has been a great skill throughout my career so far.”

Braden Cote (‘20)

Braden Cote (’20, Mechanical Engineering) had no idea how much a professor’s invitation to work in a lab would guide his career path. Now a Ph.D. student at Montana State University, Braden credits his experiences in faculty-led research with shaping his academic and professional path.

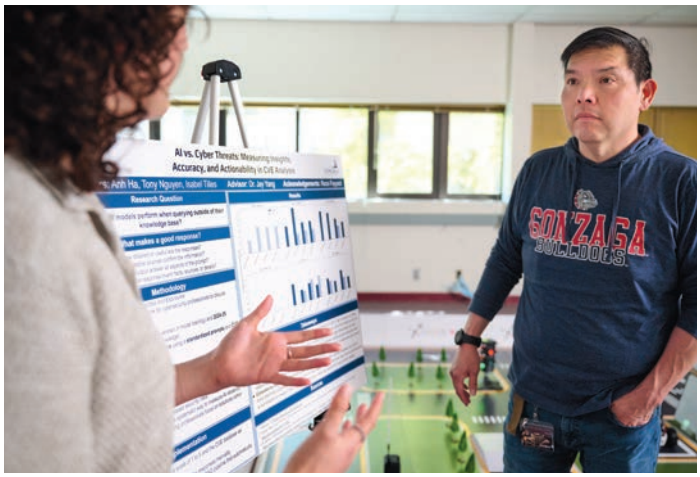
As Dr. Harman Khare began developing his tribology lab, he needed mechanical engineering students to design and manufacture unique test apparatus to examine friction and wear. Braden said that work gave him both a traditional design and iteration experience, with a valuable real-world lab experience.

“I had a lot of opportunities,” he says. “It was honestly an awesome opportunity. It hadn’t crossed my mind that research was a viable career option for me!”

Braden’s interest in bio-inspired dynamics led him to Montana State University. His studies of insect flight mechanics can inform both biologists and engineers, exploring how their capabilities could transfer to micro robots or other man-made machines.

“Being from Seattle, I’d always been interested in working in aerospace and robotics in some way,” he says. “I did find Dr. Khare’s research interesting, and I loved that work. It was fun to learn that field, but I knew if I was going to grad school, I should follow the engineering topics I like the most.”

After earning his Ph.D., Braden plans to pursue a career in the industry side of research.



S. Jay Yang, Ph.D. provides guidance to academic programs, faculty and students in the School of Engineering and Applied Science.

Institute for Informatics & Applied Technology

Collaborating for Impact

Gonzaga's Institute for Informatics and Applied Technology (IIAT) is positioning the University as a national leader in interdisciplinary, humanity-centered education and innovation at the intersection of data, AI, and the arts and sciences. Faculty and students from the School of Engineering and Applied Science (SEAS) collaborate closely with the IIAT on both research and curriculum development, ensuring that students gain a strong foundation in emerging technologies grounded in ethical and societal impact.

Housed in a newly constructed 2,800-square-foot suite on the first floor of Herak, the IIAT space features dedicated research, training, and demonstration spaces. Led by the Inaugural David & Cathleen Reisenauer Family Director, S. Jay Yang, Ph.D., IIAT hires AI Engineers to collaborate with interdisciplinary faculty fellows, building data and AI capacity across the University to advance Gonzaga's mission of forming ethical, data-fluent leaders.

In a key example of cross-school collaboration, Dr. Yang, along with SEAS and School of Business Administration (SBA) faculty, led Gonzaga's participation in a $70 million grant proposal to the National Institute of Standards and Technology (NIST) to establish the Resilient Aerospace Manufacturing Institute (RAMI).

Developed in partnership with the University of Washington, University of Idaho, and Embry-Riddle Aeronautical University, the RAMI proposal has advanced to the finalist stage, following an on-site interview at UW's Data Forge facility. If awarded, Gonzaga will receive $4.5 million over five years to support an Analytical Core, interdisciplinary research, and AI-integrated curriculum aimed at workforce development, with opportunities for additional funding to support research in collaboration with industry partners. Award announcements are expected by the end of the year.

Gonzaga's leadership in this effort highlights the transformative potential of collaboration across engineering, business, and informatics in service of a resilient, innovation-driven future.

Institute for Informatics:
gonzaga.edu/iiat

Architectural rendering of the new IIAT space on the northwest corner of the Herak Center for Engineering.

SEAS CLUBS

Engineering and computer science students don't just attend classes—they build, lead, and innovate through vibrant clubs and professional chapters. These groups are powerhouses for learning, skill-building, and making a real impact on campus and beyond. Here are some of the standout activities and milestones our students achieved recently.

SEAS Clubs: gonzaga.edu/seasclubs

Society of Automotive Engineers (SAE)

The "Holy Rollers" returned to the Baja SAE competition, designing and building a prototype of an off-road recreational vehicle. Under the leadership of co-presidents Owen Munger and Wyatt Jones, club members typically spent 10 hours a week throughout the school year designing and building the car. At the competition in Maryland, the team solved multiple challenges in order to compete and completed eight full laps in a grueling four-hour endurance race. Many thanks to Robert Reed for donating digital vehicle scales, essential for tuning suspension and shocks.

Society for the Advancement of Material and Process Engineering (SAMPE)

Gonzaga's SAMPE student chapter entered the Student Fuselage Contest, a national fabrication competition challenging student innovation and technical skills. Using fiberglass prepreg, the team laid up and cured their design, then machined openings to simulate passenger and cargo entry doors. This hands-on project provided valuable insights into aerospace composite design and manufacturing applications.

Society of Women Engineers (SWE)

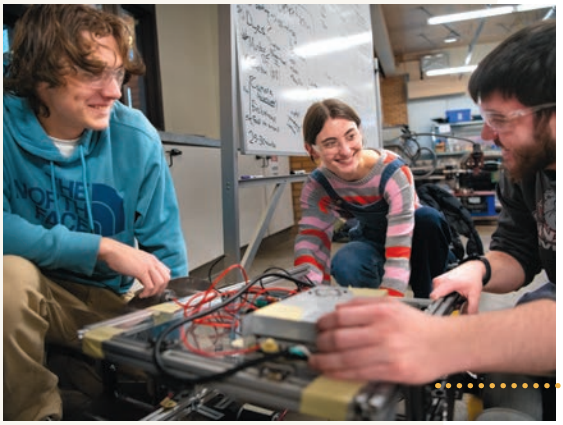
"Girl Day" is a national movement to help girls develop an interest in engineering. The Gonzaga SWE chapter celebrated National Introduce a Girl to Engineering Day with a note-writing table inviting any STEM student to write a note about why they like their major. Cards were distributed through the Center for Community Engagement to elementary and middle-school girls.

American Society of Civil Engineering (ASCE)

The “Salmon Cannon” Concrete Canoe team brought Gonzaga’s student ASCE chapter second place ranking for the Pacific Northwest. Competing against nine other schools, the “Salmon Cannon” paddled away with first place in technical presentation, second place in final canoe product, second place in project proposal, and third place in overall races. This step closer to the goal of winning the region was accomplished under the leadership of co-captains Isabella Camarota and Rebecca Riley, plus project manager Brian Leung.

Association for Computing Machinery (ACM)

Gonzaga’s ACM chapter hosted a 10-hour competition focused on innovative problem solving. Teams of students brought an idea or a problem to solve, then talked it through with mentors from computer science professors and professionals. More than 120 participants came from Gonzaga and regional schools to network and explore technology ideas.



GU Robotics

The multi-disciplinary robotics club has created a remote-controlled rover designed to work on Mars. They plan to compete in Spring 2026 in the University Rover Challenge. Computer science students work with vision systems, sensor integration, and autonomy controls. Electrical engineers focus on motor controls, power control and monitoring, and system reliability. Mechanical engineers build a reliable chassis that balances material strength, weight, durability, and weather resistance. Other majors contribute wherever their skills and interests lie, including management and outreach.

American Society of Mechanical Engineers (ASME)

Students in the ASME student chapter engage with professional engineers and strive to participate in design competitions. The club recently developed a remote-controlled plane for the AIAA Design/Build/Fly competition: designing, fabricating and testing the flight capabilities of an electric powered, remote-controlled airplane. The club hopes to build on last year’s experience to compete in April 2026.

Celebrating National Engineers Week

A Gonzaga student teaches a kid how to code color patterns and times into a controller to make a small light show.

Elementary Kids Learn from SEAS Academic Clubs

To celebrate National Engineers Week in February, several engineering and computer science club members taught engineering concepts to elementary school students.

Gary R. Weber, Ph.D., director of Engineering Management, arranged the event where students involved in the Gonzaga Campus Kids program took turns at five different stations: aerodynamics, egg drop, light show, maze and robotics, and an introduction to 3D modeling.

Engineers Week: gonzaga.edu/eweek

Renouard Lecture: *Ethics of AI Algorithms*

Building an unbiased AI system is easier said than done. In his talk "Ten Things You Need to Know about Algorithmic Bias," Michael J. Quinn, Ph.D. provided important examples of AI-driven systems making biased recommendations. The lecture was the keynote of Gonzaga's National Engineers Week celebrations.

AI-driven systems are deployed in many domains where consequential decisions need to be made. They have recommended who should be prioritized for preventative health care, who is eligible to receive a loan, and whose neighborhood should be targeted with additional police patrols. Unfortunately, gaps in the data used to train these algorithms lead to biased systems.

Quinn explored traits of data sets that caused specific examples of bias in computerized systems. He demonstrated how a system considered to be "fair" according to one reasonable metric would be judged "unfair" according to another reasonable metric.

Students and faculty from many disciplines attended Michael J. Quinn's talk on the moral issues facing those who program and deploy AI-driven systems.

Quinn earned his Bachelor of Science in Mathematics at Gonzaga before launching an academic career in computer science. He earned his Ph.D. from Washington State University and held faculty positions at the University of New Hampshire and Oregon State University before serving as the Dean of the College of Science and Engineering at Seattle University. He conducted pioneering research in parallel computing before shifting his focus to computer ethics.

Building a Greener Future

Strategic Partnership with McKinstry

McEwan Bain ('26, Computer Engineering) and Carson Gantz ('27, Mechanical Engineering) at work this summer at McKinstry's Catalyst Building in Spokane.

The School of Engineering and Applied Science (SEAS) has expanded its partnership with McKinstry over the last year. McKinstry is a national leader in designing, constructing, operating, and maintaining high-performing buildings.

Led by Dean Allen, CEO and chairman, McKinstry provides a wide range of services including mechanical and electrical contracting, energy efficiency consulting, building analytics, and facility management. Committed to transforming the built environment through sustainable innovation, its mission focuses on creating energy-efficient, cost-effective, and environmentally responsible buildings that support the health, productivity, and well-being of occupants. These values align closely with Gonzaga's Mission.

Six SEAS majors participated in McKinstry's Build, Learn, Understand, and Enrich (B.L.U.E.) internship program in Summer 2025: McEwan Bain ('26, computer engineering), Kira Cowell ('26, mechanical engineering), Kristina Didenko ('27, civil engineering), Carson Gantz ('27, mechanical engineering), August Ricard ('26, electrical engineering) and Kai Zettel ('26, mechanical engineering).

CEO Allen shared that these internships build relationships and help students discover not only what excites them, but also whether a future with McKinstry might be possible.

McKinstry will also sponsor four senior design projects in the 2025-26 academic year.

74%

COMPLETE INTERNSHIPS

Center for Engineering Design & Entrepreneurship

Senior Design Expo

Almost 50 teams of Gonzaga engineering and computer science seniors presented their senior design projects to the general public at the Design Expo on April 30, 2025.

This annual event showcased senior design projects in civil engineering, computer science, electrical and computer engineering, mechanical engineering, and engineering management.

Senior design is a year-long experiential course, where interdisciplinary student teams work with sponsors from industry, government, non-profit, and academia, on meaningful projects that solve real-world problems.

The annual Senior Design Expo challenges teams to explain their projects to the general public, honing communication skills that will serve them in their careers.

At the annual Expo, Senior Design teams explain their projects with their prototypes or props, including a modular sensor mount design (left) and an example of a temporary shoring system to prevent soil collapse (right).

The Expo lines Bulldog Alley, allowing the entire Gonzaga community to participate.

The senior capstone program wrapped up the academic year with the Senior Design Banquet for students, advisors and team sponsors.

One exceptional project in each discipline received an award. Following are the winning teams of 2025:

- **Civil Engineering: Bus Transit Study and Design, sponsored by STA/J-U-B**
- **Computer Science: Timeline, sponsored by R7D/ Ryan Kellogg**
- **Electrical & Computer Engineering: Enhancement of Vision Inspection System for Manufacturing, sponsored by Key Tronic**
- **Mechanical Engineering: Automated Part Counter, sponsored by Jetseal**
- **Inter-Disciplinary Award: Energy Harvesting, sponsored by Boeing**

Senior Design: gonzaga.edu/cede

Some projects are easier to demonstrate to the general public, such as this team's hazard detection app using augmented reality (AR) technology.

Select teams in each discipline received a laser-cut light-up award custom crafted at the Cadwell Maker Center.

Achievements

Madelyn Cassens
Mechanical Engineering

Marion Haviland
Computer Engineering

Matt Udell
Engineering Management

Joshua Venable
Computer Science

Erik Wig
Electrical Engineering

Alyssa Willmarth
Civil Engineering

Gonzaga celebrates the achievements of the Class of 2025 who have earned degrees in Engineering and Computer Science. Among these hard-working graduates, one in each department has been recognized for outstanding accomplishments. This group of exceptional individuals demonstrated exemplary academic performance, leadership, and a commitment to excellence that sets them apart.

In addition, Madelyn Cassens earned the title of Outstanding Senior for the School of Engineering and Applied Science. The mechanical engineering major was selected due to her extensive and exemplary academic achievements, research experience, leadership, and dedication to engineering.

"Madelyn has demonstrated outstanding intellectual curiosity, work ethic, and engagement in her studies. Beyond the classroom, she has pursued diverse research and internship opportunities, including work at the Princeton Plasma Physics Laboratory, an REU at Penn State, and as a research assistant at Gonzaga University in both Math and Mechanical Engineering,"

– Marc Baumgardner
Department Chair and Professor

Get to Know These Outstanding Students:
gonzaga.edu/a3qrvd

Cassens prepares to glue the support stand for her Senior Design team's project in the Student Project Lab.

Faculty & Staff Achievements

MILESTONE ANNIVERSARIES:

- **Sara Ganzerli, 25 years**
- **Shawn Bowers, 15 years**
- **Tailian Chen, 15 years**
- **Jason Schnagl, 15 years**
- **Matthew Trimble, 10 years**
- **Daniel Olivares, 5 years**
- **Kyle Shimabuku, 5 years**

PROMOTIONS:

Wade Croft, Electronics Technician

Beau Grillo, Manufacturing Support Manager

Harman Khare, tenure and promotion to Associate Professor

Gary Weber, tenure and promotion to Associate Professor

Kyle Shimabuku, tenure

Marc Baumgardner, promotion to Full Professor

Tim Fitzgerald, promotion to Full Professor

OTHER AWARDS:

- **Mindy Ratcliffe**, Gonzaga Work Values Champion
- **Joshua Schulz**, AISC Innovation Scholar
- **Rhonda Young**, Academy of Distinguished Engineers Inductee, Oregon State University
- **Meirong Zhang**, Best Presentation Award, International Conference on Computing, Electrical and Electronic Engineering (ICCEEE), Arizona, March 2025

GRANT FUNDING:

$462K

TOTAL FACULTY GRANTS RECEIVED IN FY25

9 SEAS FACULTY APPLIED FOR EXTERNAL GRANTS IN FY25,

TOTAL $2.36M

TOTAL GRANT FUNDING RECEIVED IN SEAS FOR FY25

$1.49M

22

TOTAL CONFERENCE PROCEEDINGS

TOTAL JOURNAL PUBLICATIONS

17

Suyash Kushwaha, Garrigan Award

At Commencement, the Computer Science graduate received the **William A. Garrigan, S.J**. award for the highest GPA over four years.

This award has gone to an engineering or computer science major 4 of the past 8 years.

First Year Students

Starting on the Right Foot

Each academic year, as SEAS celebrates graduating seniors preparing to embark on the next chapter of their professional journeys, the School also focuses on setting up incoming students for success in their chosen fields of study, while actively recruiting future cohorts of engineering and computer science students. This dynamic undertaking requires thoughtful planning and commitment from SEAS faculty and staff, as well as continual adaptation to meet the evolving needs and interests of students.

During the last year, SEAS placed a stronger emphasis on designing events and spaces specifically for first year students, with goals of promoting academic success, fostering a vibrant sense of community, and helping students feel confident in their choice of major.

The year kicked off with summer orientation, where students participated in a lively Poker Run game. This interactive experience introduced them to people and places essential to their first-year journey: meeting their advisor, Joan Sarles, Interim Dean Shepherd and Dean's Office staff; exploring the Cadwell Maker Center, Math Learning Center, and the Manufacturing Technology Center; and connecting with the SEAS IT team to learn about laptop requirements. It was a dynamic and engaging way to build excitement and set the tone for life as a SEAS student.

Poker Run winners! Student pairs earned a card at each of five locations that will be important to their Gonzaga engineering or computer science academics. The students with the best poker hand of each summer orientation session won Zag Swag.

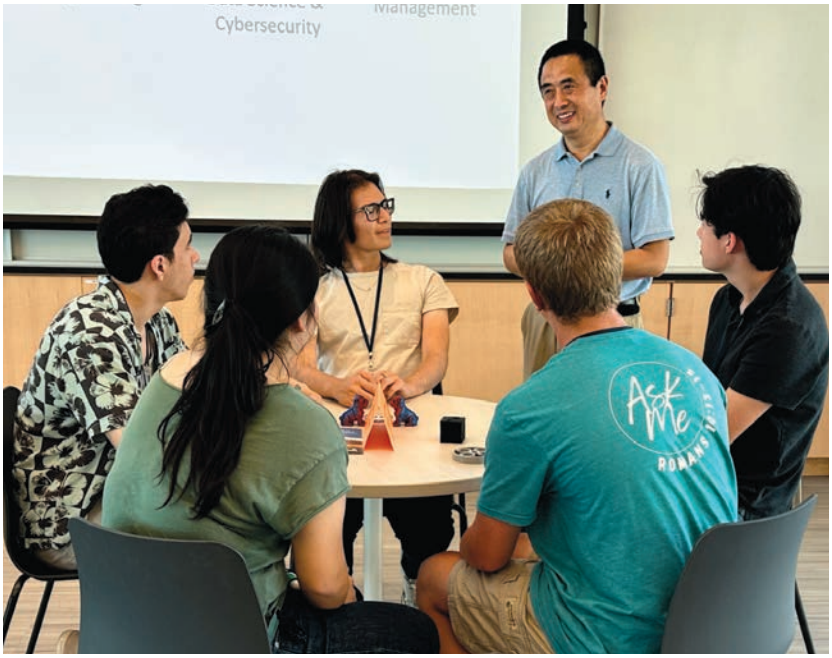
Beau Grillo, the manufacturing support manager, and Wade Croft, the electronics technician introduce first year students to the opportunites available in the Manufacturing Technology Center.

Another major initiative was rebranding the Innovation Studio in the Bollier Center as the First Year Zone, a dedicated space for studying, socializing, and accessing information about upcoming events. All SEAS first year students received 24/7 access to this zone, with additional enhancements planned for Fall 2025 to further cultivate a welcoming and engaging environment.

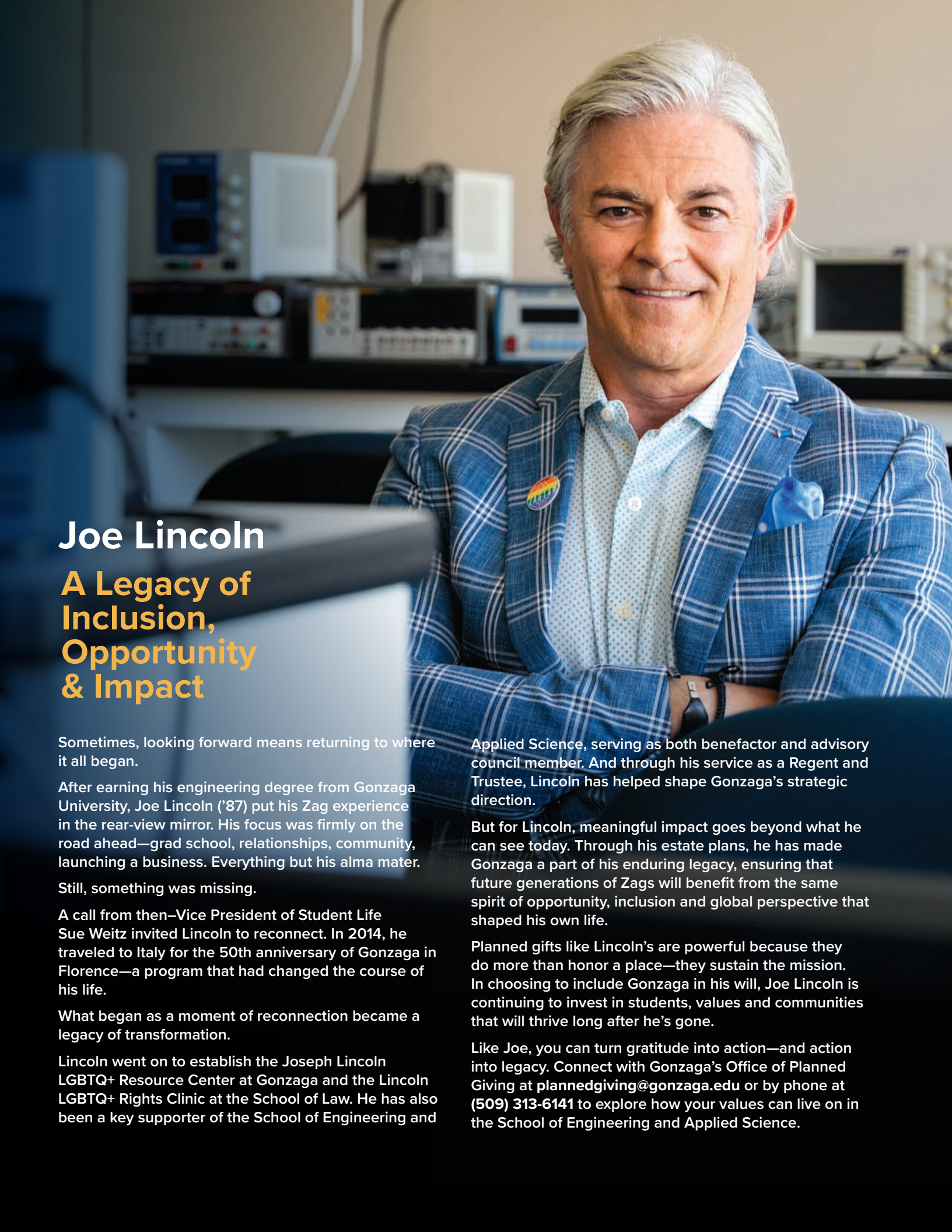
In parallel, SEAS conducted an in-depth analysis of student success metrics, including time to graduation, retention within SEAS majors, and academic performance in core math, science, and engineering courses. These insights are guiding curricular updates aimed at maintaining the school's high success rates and upholding its commitment to academic excellence. First year programming has expanded to include exciting new experiences such as a SEAS-specific study abroad fair, hands-on design workshops in the Cadwell Maker Center, and club events designed to help students get involved with SEAS organizations from the start.

On the recruitment front, SEAS redoubled its efforts to showcase the exceptional opportunities available to students. On-campus admission events now feature faculty meet-and-greets, tours of the school's world-class facilities, and engaging conversations with current SEAS students about what makes Gonzaga and SEAS so special. These efforts have already yielded strong results in attracting this year's incoming class.

SEAS Days:
apply.gonzaga.edu/portal/seasday



Yanqing Ji, chair & professor of the Department of Electrical and Computer Engineering, connects with incoming ECE students at a summer orientation session.



Joe Lincoln

A Legacy of Inclusion, Opportunity & Impact

Sometimes, looking forward means returning to where it all began.

After earning his engineering degree from Gonzaga University, Joe Lincoln ('87) put his Zag experience in the rear-view mirror. His focus was firmly on the road ahead—grad school, relationships, community, launching a business. Everything but his alma mater.

Still, something was missing.

A call from then–Vice President of Student Life Sue Weitz invited Lincoln to reconnect. In 2014, he traveled to Italy for the 50th anniversary of Gonzaga in Florence—a program that had changed the course of his life.

What began as a moment of reconnection became a legacy of transformation.

Lincoln went on to establish the Joseph Lincoln LGBTQ+ Resource Center at Gonzaga and the Lincoln LGBTQ+ Rights Clinic at the School of Law. He has also been a key supporter of the School of Engineering and Applied Science, serving as both benefactor and advisory council member. And through his service as a Regent and Trustee, Lincoln has helped shape Gonzaga's strategic direction.

But for Lincoln, meaningful impact goes beyond what he can see today. Through his estate plans, he has made Gonzaga a part of his enduring legacy, ensuring that future generations of Zags will benefit from the same spirit of opportunity, inclusion and global perspective that shaped his own life.

Planned gifts like Lincoln's are powerful because they do more than honor a place—they sustain the mission. In choosing to include Gonzaga in his will, Joe Lincoln is continuing to invest in students, values and communities that will thrive long after he's gone.

Like Joe, you can turn gratitude into action—and action into legacy. Connect with Gonzaga's Office of Planned Giving at **plannedgiving@gonzaga.edu** or by phone at **(509) 313-6141** to explore how your values can live on in the School of Engineering and Applied Science.

Giving Back, *Guiding the Future*

Glorilyn Maw has encouraged high school students to pursue engineering through the Summer SEAS Immersion Program (SSIP).

It is both an honor and a joy to serve as chair of the SEAS Advisory Council. Under the inspiring leadership of Interim Dean Jennifer Shepherd, the council has engaged directly with SEAS faculty to learn about the exciting research underway and the launch of GRO-MECS – Research Opportunities in Math, Engineering, and Computer Science.

We've also seen the start of the Center for Material Research and the beginning of the biomedical engineering program. These developments highlight the remarkable progress SEAS continues to make.

Interim Dean Shepherd and I extend our deepest gratitude to the 2024–25 council members for their continued support of SEAS and Gonzaga University. We also wish to recognize and thank three outstanding individuals as they retire from their roles: Jeff Reed, Heather Rosentrater, and Jim Moore. Their generosity of time, expertise, and energy has left a lasting impact on the SEAS community.

This fall, we are excited to welcome Matthew Reed and Scott Kinney as new members. Their experience and commitment to our mission will further strengthen an already exceptional council.

Our council remains dedicated to SEAS's mission to educate and empower the next generation of students. We look forward to another year marked by collaboration, innovation, and progress.

Blessings,

Glorilyn Maw, PE '90

Chair, SEAS Advisory Council

SEAS Advisory Council

Glorilyn Maw, Principal, Hydraulic Engineer, MP Stormwater

Darice Brayton, Team Leader, Tektronix (Retired)

Dave Coffman, President, Coffman Engineers (Retired)

Brennan Dunlap, Senior Manager 747/767 Engineering, The Boeing Company

Kenny Farrow, Senior Vice President, COO, Stress Engineering Services Canada

Joe Fernando, Professor of Engineering and Geosciences, University of Notre Dame

Dale Garrett, Director of Project Development, The Sun Company

Willy Geary, VP Production & Sr. Chief Engineer, The Boeing Company (Retired)

Allen Gillette, Executive VP, Global Engineering, Generac Corporation (Retired)

Scott Kinney**, VP Energy Resources, Avista Corporation

Joe Lincoln, Co-Founder, e5 Solutions/ Serrala (Retired)

Lisa Lucas, Research General Engineer, U.S. Geological Survey

Scott Marshall, VP/ Transportation Project Manager, HDR Engineering Inc.

Jim Moore*, President, MW Consulting Engineers (Retired)

Chad Orebaugh, Vice President of Engineering, Key Tronic Corporation

Tony Parasida, Senior VP of HR and Admin, The Boeing Company (Retired)

Jeff Reed*, President and CEO, Basic Resources Inc.

Matthew Reed**, Special Initiatives Manager, Reed Family Companies

Heather Rosentrater*, Senior Vice President, COO, Avista Corporation

Anthony Schoen, Mechanical Engineer, MW Consulting Engineers

Jim Weston, Lecturer, Mechanical Engineering, Gonzaga University

**Term ended Spring 2025*
***Term begins Fall 2025*

SEAS Lifetime Honor Roll

With sincere gratitude to the donors who contribute to the engineering and computer science students' success, the School of Engineering and Applied Science proudly recognizes these **Lifetime Contributors**. † = Deceased

$1,000,000 and Above

The Boeing Company
John and Joan Bollier
Bollier Family Foundation
Howard and Norma Crawford
Duet Technologies
Don and Carol Herak †, '46
M.J. Murdock Charitable Trust
PACCAR Inc
Jeff and Margaret Reed, '75
Reed Family Foundation
Walter A. and Hazel Toly †

$500,000 - $999,999

Bob and Katie Ferguson †, '54
Fidelity Investments Charitable Gift Fund
Intel Corporation
W. M. Keck Foundation
The Kern Family Foundation, Inc.
Ed and Yvonne Ralph †, '48
Phil and Bev Reinig †, '51
Lucy F. Tsoi, '53

$250,000 - $499,999

John and Jewel Andrew, '54
The Avista Foundation
Lawrence J. and Anna M. Bennett, '72
Dr. Stephen L. and Marjorie M. Brenneke, '67
Burlington Northern Santa Fe Foundation
John E. Cannon, Sr. †, 26
Allen Gillette and Kathy Zimmerman, '79
Carl M. Hansen Foundation
Independent Colleges of Washington
Don (RIP) and Marilyn Jans, '56
Kevin J. Kenneally Trust
Joseph A. Lincoln, Jr., '87
Scott and Glorilyn (Kimokeo) Maw, '90
Ed and Bunny (Suva) Renouard, '59
Ron and Sara Seubert, '72
Jennifer Shepherd and Kurt Niven
David and Terry Wollersheim, '59

$100,000 - $249,999

Jerold D. Abrams, '07
Avista Corporation
Battelle Memorial Institute
Benevity
Frank † and Ilse Bourbeau
Dr. John and Priscilla Cadwell
Ben B. Cheney Foundation
Coeur d'Alene Mines Corporation
Coffman Engineers
Gene J. Colin † and Susan M. Janus
DAFgiving360
Fluke Corporation
Leopold Gellert Family Trust
George and Marianne Grant †
Herschel and Betty Gustafson †, '50
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John Hemmingson
Dr. and Mrs. † William P. Ilgen
J.P. Morgan Charitable Giving Fund
Darrell and Ruth † Jackson, '85
Daniel and Nan Jacuzzi
Donald Jans Family Trust
Johnston Fix Foundation
Kaiser Aluminum Fabricated Products
KPFF Consulting Engineers
Randall and Donna Kruep
Henry Luce Foundation
Thomas and Jean Malott †, '34
Joseph L. McCarthy †, '19
Charlie McGivern, '66
MW Consulting Engineers
Pfizer
John and Diane Rettig
Barry W. Santana, Ph.D., '67
SCAFCO Corporation
The Frost and Margaret Snyder Foundation
SprayCool, Inc.
Lawrence B. Stone
Dr. D. Michael and Mrs. Sunny O'Melveny Strong, '63
Richard and Barbara Taylor
Vanguard Charitable Endowment Program
Ray Vollert †, '63
Dennis † and Jackie Wheeler

$50,000 - $99,999

Alcoa Foundation
Nettie Balch Allen, '62
Altera Corporation
Ted and Elisabeth Angell
Associated General Contractors of America
Basic Resources, Inc.
Boise
BSC Engineered Systems
Century Link
Robert and Ramona † Clavel, '57
Billy and Joan Dinsdale
Engeo Incorporated
Chad and Wendi Fischer
Daniel and Ann Galligan, '01
Garco Construction
Nora Grasham, '98
Steve and Heather Hastings, '10
Eugene and Barbara Henry, '66
Herak Foundation
Innovia Foundation
John B. Kempfer †, '61
Patrick Lettenmaier, '49
Levernier-Shea Construction Company
David and Cyndi † Lucke, '74
Carroll and Patricia Martell, '68
Jack and Carol † McElroy, '63
Microsoft Corporation
Jim and Jean Moore, '72
National Asphalt Paving Association
Olivetti North America, Inc.
Dr. Donald R. Paugh and Ms. Diedre L. Olin, '79
Qwest Foundation
Paul and Barbara † Redmond, '64
Robbins Company
William Robinson
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Sabey Corporation
Schweitzer Engineering Laboratories
Thomas N. Sharp
Tim and Debbie Stulc
Ernest and Greta Toll †
Union Pacific Foundation
Vandervert Construction Inc.
Washington Trust Bank
Tim and Jackie Welsh
Dr. Zia Yamayee

$25,000 - $49,999

Agilent Technologies
Bank of America Charitable Gift Fund
Darice Brayton and Paul McShane, '87
Jim † and Pauline Bresnahan, '70
Bright Funds Foundation
Gerda Brown, '44
Brian and Corinne (Coombs) Burton, '97
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