



Civil Engineering

Gonzaga civil engineers create the systems that are foundational to human flourishing and protecting public health and the environment: safe and sustainable structures, clean water and aquatic ecosystems, sustainable transportation, and smart infrastructure. Through classroom discussion, lab research, and field practice, the Civil Engineering program prepares students to serve others as professionals, scholars, and entrepreneurs. Our curriculum offers students the opportunity to probe deeper into the sub-disciplines of construction, environmental, geotechnical, structural, transportation, and water resource engineering, which are needed to address the most pressing challenges facing the built

THE PROGRAM

With a commitment to the Gonzaga mission, Civil Engineering offers strong relationships between faculty and students across six sub-disciplines:

- **Construction:** Designing and managing construction techniques and procedures for safe and efficient construction environments. This concentration also includes a business minor.
- **Environmental:** Protecting public health and minimizing environmental impact through infrastructure like drinking water treatment, wastewater treatment, and engineered wetlands.
- **Geotechnical:** Analyzing ground types and conditions to determine ways to support various structures.
- **Structural:** Designing a variety of structures—like buildings and bridges—to stand strong in environments that may include high winds, heavy snow, frequent traffic, and even earthquakes.
- **Transportation:** Planning, designing, and operating multimodal transportation system to ensure safe, efficient, and sustainable movement of people and goods.
- **Water Resources:** Designing systems to maintain and distribute clean water, managing conveyance of water to minimize flooding and erosion, and restoring and protecting natural water environments.

95%
SUCCESS RATE

(Students who receive job offers or graduate school acceptance)

CAREER OUTCOMES

Recent graduates have been hired by:

- DOWL
- Kimley-Horn
- Mountain Waterworks, Inc.
- Swinerton Builders

GRADUATE STUDIES

Recent graduates have been admitted to graduate programs at:

- Cornell University
- Stanford
- University of California - Berkeley
- University of Washington

CO-CURRICULAR CLUBS

Students in the program are currently involved in the following clubs:

- American Society of Civil Engineers
- Gonzaga Sustainable Energy
- Institute of Transportation Engineers
- Society of Women Engineers

FACILITIES

With a blend of professional and research-active faculty, all civil engineering labs offer real-world, hands-on experience for students from their first-year to senior year:

Construction Materials Lab: Measure properties of common construction materials—steel, concrete, timber, brick, block, and aluminum—to ensure they meet applicable codes and specifications.

Environmental Engineering Lab: Quantify the types and significance of natural and man-made contaminants, simulate treatment systems with laboratory equipment used by practitioners, and apply environmental chemistry techniques.

Soil Mechanics Lab: Study behavior of sand, gravel, silt, and clay to understand properties like weight-volume relations, compaction, seepage, consolidation, shear strength, and stability.

Transportation Engineering Lab: Time an intersection traffic signal system, experience roadway facilities found locally and globally on the bicycle VR simulator, develop traffic flow simulation models of existing or proposed facilities, and immerse oneself in a VR world of a future city in the year 2070.

Water Resources Lab: Use pumps, pipes, flumes, watershed, stream tables, and other natural and engineered structures to examine infiltration and runoff generation, pipe friction and pressure loss, pump cavitation, energy dissipation by hydraulic jumps, and the management of natural stream erosion around infrastructure.

The City: Thanks to great local engineering and strong community relationships, Spokane and the surrounding area is the best lab we have. Students are given frequent opportunities to study and learn alongside professionals who want to invest in the next generation of civil engineers.

GRANT-FUNDED RESEARCH PROJECTS

- Connected vehicles
- Drinking water treatment
- Stream restoration
- Sustainable construction materials

GRADUATE FROM AN ABET-ACCREDITED PROGRAM

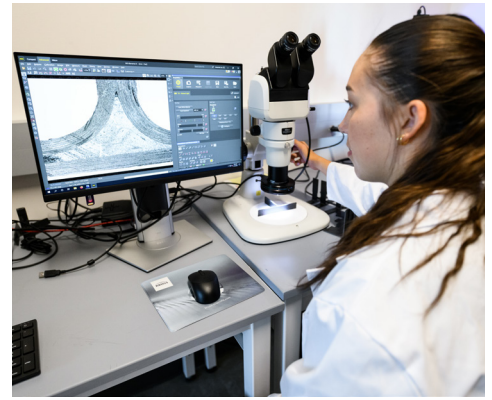
The BS program in Civil Engineering is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

STUDY ABROAD

Civil engineering students can study in Florence, Italy for a semester or experience Sustainable Cities on a 3-week faculty led civil engineering summer course to the Netherlands. Study abroad programs also offer countless other short-term faculty-led trips that fulfill non-engineering course requirements.



Computing & Engineering Accreditation Commissions



90%

Students who have one or more internships prior to graduation

90%

Students who pass the Fundamentals of Engineering exam

40%

Students who elect to work with faculty as undergraduate research assistant.



FACULTY CONTACT

Mark Muszynski, Ph.D., P.E.
DEPARTMENT CHAIR
MUSZYNSKI@GONZAGA.EDU

FOR MORE INFORMATION:
gonzaga.edu/civil

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