Engineering
Concentration: Civil Engineering
Bachelor of Science in Engineering
2025-2026

General Areas of Service: A civil engineer plans, designs, and directs construction and maintenance of sustainable man-made and natural systems. Applications include facilities such as buildings, bridges, airframes, ships, roadways, railways, waterways, airports, harbors, dams, pipelines, and water and environmental protection systems for water supply and wastewater handling. Civil engineers are employed by private industries, consulting firms, and the government. Many advances to managerial or administrative positions, or establish their own firms.

Professional Training: A bachelor's degree in engineering, with a concentration in civil, is the minimum educational requirement for civil engineering professional registration, although graduate training is preferred or required for some jobs.

Job Outlook: The Bureau of Labor Statistics (BLS) states, "employment of civil engineers is projected to grow 5 percent from 2022 to 2032, about as fast as the average for all occupations." Civil engineers will be needed to maintain and improve aging infrastructure, develop renewable energy projects, and expand water supply systems and waste treatment operations to meet the demands of a growing population. (See www.bls.gov)

Earnings: In their May 2023 salary survey, the Bureau of Labor Statistics reports the median annual wage for civil engineers as $95,890, with the lowest 10 percent earning less than $63,220 and the top 10 percent earning more than $150,640. (See www.bls.gov)

Community Impact Certificate: Engineers with a heart for service are encouraged to pursue the Community Impact Certificate. This certificate is designed to provide students with a transformative complement to their chosen academic education at Walla Walla University. This program aims to engage all of its students deeply, fostering a focused community that actively learns, grows and serves together. When the requirements for the emphasis are met, they will receive a certificate on their transcript and diploma that can be seen as representing a degree of expertise in preparing them for humanitarian careers. It requires a few additional classes beyond the standard engineering classes. The number of extra classes can be minimized if general studies classes are chosen carefully.

Note: Students should take pre-calculus in high school or during the summer to allow them to enroll in Calculus I during their first quarter. Failure to complete Calculus II prior to the start of the second year will delay the student's graduation.

Students are expected to take 26 credits of Technical Electives to meet their degree requirements. Technical electives are to be selected with the approval of the student's Engineering advisor.

Engineering Phase Advancement: In the interest of having students matched with majors in which they can succeed, the School of Engineering has established three phases for students to advance through.

Before graduation, all students must take an exit exam.

SCHOOL OF ENGINEERING

Chan Shun Pavilion
(509) 527-2765

Websites

Walla Walla University
University Bulletin

School of Engineering

Faculty

Dean
Delvin Peterson

Associate Dean
Bryce Cole

Advisors
Bryce Cole
Louie Yaw
Delvin Peterson
Melodie Williams

Professional Organizations

American Society of Civil Engineers

Suggested Degree Path

TOTAL CREDITS REQUIRED: 200 cr. GENERAL STUDIES REQUIREMENTS: 44 cr. See the Undergraduate Bulletin for Details

The chart below details one suggested path a student may take to complete an Engineering degree with a concentration in Civil. Cognates are listed in *italics*.

Freshman Year

Fall Courses	Hours
Intro to Engineering (ENGR 121)	2
Calculus I (MATH 171)	4
General Chemistry & Lab (CHEM 141 & 144)	4
Intro to Analytical Writing (ENGL 121)	3
General Studies	3
Total	16

Winter Courses	Hours
Intro to CAD (ENGR 122)	2
Calculus II (MATH 172)	4
General Chemistry & Lab (CHEM 142 & 145)	4
Intro to Research Writing (ENGL 122)	3
General Studies	4
Total	17

Spring Courses	Hours
Intro to Engineering Design(ENGR 123)	2
Intro to Linear Algebra (MATH 239)	4
General Chemistry & Lab (CHEM 143 & 146)	4
Fundamentals of Programming I (CPTR 141)	4
General Studies	3
Total	17

Sophomore Year

Fall Courses	Hours
Engineering Mechanics (ENGR 221)	3
Sophomore Colloquium (ENGR 295)	0
Calculus III (MATH 273)	4
Principles of Physics & Lab (PHYS 251 & 254)	4
Research Writing (ENGL 223)	3
General Studies	3
Total	17

Winter Courses	Hours
Engineering Mechanics (ENGR 222)	3
Differential Equations (MATH 286)	3
Electives (Science)	4
General Studies	6
Total	16

Spring Courses	Hours
+Civil Engineering Materials (ENGR 323)	3
Calculus IV (MATH 274)	4
Electives	7
General Studies	3
Total	17

Junior Year

Fall Courses	Hours
Mechanics of Materials (ENGR 321)	4
Fluid Mechanics (ENGR 331)	4
-Env. Engr. Systems (ENGR 343)	4
-Contracts & Specifications (ENGR 345)	2
Junior Seminar (ENGR 396)	1
Electives	2
Total	17

Winter Courses	Hours
-CE Analysis (ENGR 344)	4
-Water Treatment & Transport (ENGR 445)	4
Structural Analysis I (ENGR 347)	3
Electives	3
General Studies	2
Total	16

Spring Courses	Hours
-Surveying (ENGR 346)	4
Engineering Economy (ENGR 326)	4
Structural Analysis II (ENGR 348)	3
Junior Seminar (ENGR 397)	0
-Water Treatment & Transport (ENGR 446)	4
Colloquium	0
General Studies	2
Total	17

Senior Year

Fall Courses	Hours
Circuit Analysis (ENGR 228)	4
+Geology & Soils (ENGR 341)	4
Steel Structural Design (ENGR 441)	3
Capstone Engineering Project (ENGR 496)	1
Probability & Statistics (MATH 315)	4
Total	16

Winter Courses	Hours
Hydrology (ENGR 342)	3
Reinforced Concrete Structural Design (ENGR 442)	4
Colloquium (ENGR 495)	0
Electives	3
Electives (Capstone)	3
General Studies	4
Total	17

Spring Courses	Hours
+Transportation Engineering (ENGR 449)	4
Colloquium (ENGR 495)	0
Capstone Engineering Project (ENGR 499)	1
Electives	7
General Studies	5
Total	17

+ Offered even years only
- Offered odd years only

Office of Academic Advisement
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