
ENGINEERING, DUAL DEGREE PROGRAM

Director: Rand Worland, *Physics*

About the Program

To meet the educational needs of students interested in becoming engineers and who also want a significant liberal arts component to their education, the University of Puget Sound has responded with a Dual Degree Engineering Program. The program is administered by the Director of Dual Degree Engineering. Students in the program spend their first three or four years at Puget Sound taking a course of study prerequisite to engineering. Qualified students may then transfer to one of our affiliated institutions and complete an additional two years of study in professional engineering courses. Transfer to non-affiliated institutions is also possible; however, those institutions treat the incoming student as a transfer student and impose their own additional graduation requirements. Upon successful completion of the required coursework at both institutions, the student receives two bachelor degrees, one from the University of Puget Sound for the core and major covered by our coursework, and the second from the Engineering School in the discipline covered by their coursework. Should the student not transfer at the end of three years, he or she may simply complete the Bachelor of Arts or Science degree in a selected discipline at the University of Puget Sound.

Currently the University has entered into agreements with the engineering schools at Washington University (St. Louis), Columbia University, and the University of Southern California.

Students should be aware that entrance to an engineering school is on a competitive basis and requires a minimum GPA. Students interested in learning more about the program are invited to contact Professor Rand Worland, the Dual Degree Engineering Director.

To obtain a degree from the University of Puget Sound, the Dual Degree Engineering student must complete at least 16 units in residence and have credit for 24 units prior to transferring to an engineering school. These units must cover Puget Sound core requirements and the courses needed to fulfill the requirements of the student's major. In order to meet the 32 units required for graduation, up to eight units of engineering credit are accepted as elective coursework towards the student's degree at Puget Sound. Credits for core requirements may not be transferred back from the engineering school.

In addition, to qualify for entry into an engineering school, the student must complete specific coursework that the engineering school requires. Most science majors fulfill much of this coursework in completing a major at Puget Sound, and can do so within three years. Non-science majors can also participate in the program, but to complete the necessary coursework four years are needed. Whether they fall within the major or not, the student must complete the following:

Chemistry*: 2 - 2.5 units

110 General Chemistry I, or 115 Integrated Chemical Principles and Analytical Chemistry I
120 General Chemistry II, or 230 Integrated Chemical Principles and Analytical Chemistry II

Computer Science: 1 unit

161 Introduction to Computer Science, or equivalent

Mathematics*: 5 units

180/181 Calculus and Analytic Geometry I, II
280 Multivariate Calculus
290 Linear Algebra
301 Differential Equations

Physics: 2 units

121/122 General University Physics I, II

Recommended for Biomechanical Engineering

CHEM 250 Organic Chemistry

Recommended for Electrical Engineering

PHYS 221/222 Modern Physics I, II
PHYS 231 Circuits and Electronics
Introduction to Electrical Engineering (not offered at Puget Sound)

Recommended for Chemical Engineering

CHEM 250/251 Organic Chemistry I, II

Recommended for Mechanical Engineering

PHYS 305 Analytical Mechanics
Statics (not offered at Puget Sound)

Note

Some of the affiliate schools have particular course requirements that must be met. These can usually be satisfied by careful selection of core and major coursework. Information about affiliates is available on the Dual Degree Engineering Program website: pugetsound.edu/academics/departments-and-programs/undergraduate/dual-degree-engineering/.

Students should work closely with Dual Degree Engineering Director to ensure that all requirements are met.

*Students with sufficient background and preparation in high school chemistry and calculus may test out of Chemistry 110 and/or Mathematics 180/181.