



Engineering Dual-Degree - Bachelor of Art (Chemistry)

	Fall Term	J-term	Spring Term	Comments
First Year	MATH 151 ENGR 131 (2) CHEM 115 FYEP 101 PLUS 100	GED ED	MATH 152 PHYS 153 PHYS 163 (1cr) CHEM 116 FYEP 102	32 credits per year are necessary to graduate in 4 years (which requires a minimum of 128 semester hours). Math credits can be taken a semester earlier than scheduled here if you take MATH 152 in Fall of your First Year. (reference)
Sophomore Year	MATH 253 PHYS 154 PHYS 164 (1cr) CHEM 331 CHEM 333 (1 cr) GEN ED	GEN ED FTWL 100	PHYS 354* (or MATH 351**) PHYS 223 CHEM 332 CHEM 334 (1 cr) GEN ED FTWL	*PHYS 354 only offered in Spring on odd years
Junior Year	DATA 133 or CSCI 144 MATH 351** (or PHYS 354*) CHEM 341 CHEM 343 (1 cr) GEN ED	GEN ED FTWL	PHYS 354* (or MATH 351**) CHEM 342 GEN ED GEN ED	**MATH 351 only offered in Fall on odd years
Senior Year				

This advising guide is for advising purposes only and does not denote a contract with the student or Pacific Lutheran University. Many programs have specific deadlines for application or declaration; contact the department or program chair for information. This information is accurate as of February 9, 2022; please check with your program chair for updates to the program. The university reserves the right to make necessary changes at its discretion.

General education course requirements are listed assuming that major classes will not count toward the general education course requirements. If a course counts towards a major and a general education requirement (e.g. PSYC 101 if the student is a psychology major), students will still need to take enough courses (shown here as electives) to reach the 128 credits needed to graduate.

Engineering Dual-Degree Requirements

- Completion of the following science and mathematics courses, paired with a Bachelors of Arts in Physics requirements (below)
 - MATH 151, 152, 253 (12 semester hours)
 - MATH 351 or PHYS 354 (4 semester hours)
 - PHYS 153, 154, 163, 164, 223 (14 semester hours)
 - CHEM 115, 116 (8 semester hours)
 - CSCI 131 (2 semester hours)
 - DATA 133 or CSCI 144 (4 semester hours)
- **Major in Chemistry:** Completion of courses in organic chemistry and physical chemistry :
 - Organic Chemistry:
 - CHEM 331, 332, 333, 334
 - Physical Chemistry:
 - CHEM 341, 342, 343
- Go to the [department web page](#) and [catalog](#) for complete information on the department and major.
- Please refer to the [chemistry catalog](#) to ensure that a given course is offered in your preferred semester/year.

The Engineering School Program

Students are also required to complete an ABET-accredited engineering degree before the Bachelor of Arts degree can be awarded by PLU. The specific course of study in the final phase of the program at the engineering school depends on both the school and the subdiscipline. PLU maintains formal arrangements with Columbia University in New York City and with Washington University in St. Louis to facilitate the transfer process into either of those institutions. Between Columbia University and Washington University, approximately 20 different engineering subdisciplines are available to Dual-degree students. These include the more common subdisciplines (civil, chemical, electrical, mechanical) and others such as biomedical engineering, applied mathematics, and environmental engineering. Details about the additional requirements for transfer to Columbia University and Washington University can be found at those institutions' websites: undergrad.admissions.columbia.edu/apply/combined-plan and engineering.wustl.edu/prospective-students/dual-degree/Pages/default.aspx.

Academic Expectations

Columbia University requires a cumulative PLU grade point average of 3.30 or higher, and a grade point average of 3.30 or higher in pertinent mathematics and science courses. In addition, Columbia requires that each grade earned in a mathematics or science course at PLU must be at the B level or higher the first time the course is taken. Columbia University requires that students attend at least three full-time years at PLU before transferring. Guaranteed admission is not available for candidates who began college, whether at an affiliate school or not, in Fall 2019 or later. All applicants who began college in Fall 2019 or later will be considered under a competitive review process.

For Washington University, the required grade point average is 3.25, both overall and in science and mathematics courses. Washington University also considers applicants under a competitive review process.

Although students who choose to transfer to another engineering school may be able to gain admission with slightly lower grades than those required by Columbia University and Washington University, all prospective engineering students are well advised to use the higher standard as a more realistic indication of what will be expected of them in the engineering school. Engineering schools often do not

allow pass-fail courses; thus, PLU students are advised not to enroll in mathematics, science or engineering courses for pass-fail grading.

For more information, contact the dual-degree program director in the Department of Physics or visit the program website at www.plu.edu/physics/dual-degree/ .

General Degree Requirements

- Completion of the General Education Program element requirements as specified in the catalog, except that *the following general requirements are **waived** for all dual-degree (3-2) students:*
 - Completion of a minimum of 128 semester hours on the PLU transcript;
 - Completion of a minimum of 40 semester hours from courses numbered 300 and above;
 - The requirement that at least 20 of the minimum 40 semester hours of upper-division work must be taken at PLU;
 - The requirement that the final 32 semester hours of a student's program be completed in residence at PLU;
 - The requirement that the senior seminar/project be completed at PLU. Senior projects from the engineering school (a characteristic of ABET-accredited schools) will satisfy the PLU senior project requirement for Dual-degree students upon approval of the project by the appropriate PLU department chair.