
What is Chemistry?

Chemistry is the study of the composition and properties of, and changes in, substances and matter in general. It deals with chemical bonds, chemical reactions, and interactions of atoms through intermolecular forces. It's a branch of the physical sciences, and is considered a "central science", having a role in and making important connections between all the other natural sciences.

What can I do with a Chemistry Degree?

Chemistry majors enter a wide variety of careers: medicine, forensics, engineering, pharmaceuticals, biotechnology, patent law, space exploration, policy, textiles, food chemistry, even sales.

There are several types of chemists complementing the varied chemistry careers: Analytical, Inorganic, Medicinal, Organic, and Physical Chemists, and more (for more information see WOIS.org → Careers → Chemistry).

Chemists also work as secondary education teachers or in academia as university Professors, practicing research, and teaching.

Related Majors

Chemical Engineering	Chemistry Education
Biochemistry	Physics (Astro-)
Pharmacology	Mathematics
Forensics	Biology
Materials Science/ Engineering	Geological and Earth Science Professional Health fields

Where can I study Chemistry ?

From Western Washington University to Whitman College and from Gonzaga University to the University of Washington, most public and private universities in Washington, and across the nation, offer a Chemistry degree. Most offer Bachelor's degrees; some additionally offer graduate degrees (Master's and Ph.D.), chemistry teaching endorsements, or various chemistry emphases.

How do I get started?

At Bellevue College, we are here to help you get started on your path to studying Chemistry as a major. For most students, the main goals are to both graduate with a transferable associates degree and to complete most or all of the major prerequisites. Accordingly, below are some steps that you can take to help you successfully transfer to your dream school as a Chemistry major.

Step One: Research

Making an informed decision about a major requires active research. Here are steps that students should complete while determining whether a Chemistry major is the best fit for their goals:

- Make a list of things you want out of your education. What goals do you have when it comes to what you study in college?
- Log on to wois.org (obtain a [site key](#) from the BC Career Center) or the national occupations website, onetonline.org, to check out potential occupations and what life after college may look like for you. Specifically look at what type of background is necessary for your dream job and if/how your education in chemistry helps you meet those goals. If you have more questions be sure to visit the BC Center for Career Connections on the second floor of the B building.
- Read the Chemistry department websites of your top transfer schools. Take notes of what you like and dislike about each school, paying special attention to the types of research, educational opportunities, and courses/emphases offered.
- Every university and major concentration **may require different prerequisite courses** to be completed prior to enrolling in their Chemistry program. Contact a departmental representative at your potential transfer university.

Step Two: Pick a BC Degree

As a transfer student, you not only have the responsibility of researching the prerequisite courses required for your major and university, but you also need to pick a degree to pursue at BC. We offer several transfer degrees at BC, but one in particular is especially well-suited for prospective Chemistry students.

BC Degree	Key aspects of this degree:	This degree is ideal for:
Associate of Science Track 1 (AS-T1)	<ul style="list-style-type: none">Requires students to complete three major science sequencesRequires students to complete three quarters of calculusRequires less written communication courses than other BC degreesLimits the amount of general education coursework a student must complete	Students who have completed or plan to start with Calculus 1, have experience in chemistry, biology, and/or physics, and would enjoy doing more science coursework up front at BC.

Step Three: Make a Plan

The table below has a list of common prerequisite courses found for Chemistry programs across our state, with some emphasis on the Chemistry programs at the UW Seattle (UW S) and UW Bothell (UW B) campuses. While many programs have similar prerequisites, it is still important to research individual Chemistry programs at your school of choice. The prerequisites can be varied depending on which program and university you plan to pursue.

Math	Chemistry	Physics	Other preparatory courses (typically not required)
<ul style="list-style-type: none">MATH 151¹MATH 152¹MATH 153 (for AS-T1)MATH 254 (for UW S grad; UW B admissions)	General and Organic Chemistry <ul style="list-style-type: none">CHEM 140 (or Chem exam*); 161, 162, and 163^{1,2}CHEM 261, 262CHEM 263 (UW S grad; UW B admissions)	<ul style="list-style-type: none">PHYSICS 121, 122, 123² recommendedORPHYSICS 114, 115, 116² (depends on school/program: UW S admissions; UW B grad requirement)	<i>Research individual programs</i> <ul style="list-style-type: none">Technical WritingComputer Programming

¹ These classes/series are recommended to be taken during the first year of study at Bellevue College.

² Note that the Chemistry and Physics series have math prerequisites. General Chemistry also has an introductory chemistry prerequisite (or assessment).

Due to the many math and science requirements, students should plan to take math and chemistry courses beginning with their first or second quarter at BC. *Students with a strong chemistry background may want to take the Chemistry Placement Exam (Placement and Testing Services, B142) to test out of CHEM 140. Students should also plan on continuing to take either math or science courses nearly every quarter while they are at BC. Chemistry programs typically require that students receive a minimum GPA of 2.0 or 2.5 in the program prerequisite courses to be counted towards admission requirements.

In most cases, students interested in chemistry-based research should plan on completing a Master's degree or a Ph.D. degree. Chemistry graduate programs can take between 2-6 years to complete. You'll need to research graduate program prerequisites.

Now that you've had a chance to review your prerequisites, and have been able to review the degrees offered at BC, a great next step is to meet with an adviser. Chemistry is part of the Science Division (located in L200) and you can make an appointment to meet with the science adviser by visiting there or by calling 425-564-2321. For general advising appointments call: 425-564-2212.

Additionally, please note we can help answer clarifying questions via email: scienceadvising@bellevuecollege.edu

This is an unofficial guide only, designed to prepare students for entry into Washington State Chemistry programs. It is the student's responsibility to research and communicate with all community college and university programs to which he/she intends to apply to establish prerequisites and admission requirements, as they vary and are subject to change without notice.