

# OVERVIEW OF THE CHEMISTRY CURRICULUM

[chemistry.oregonstate.edu/undergrad/advising.html](http://chemistry.oregonstate.edu/undergrad/advising.html)

## Chemistry Curricula: BS Degree (10 Options Based on Two Tracks<sup>a</sup>) and BA Degree

**Track One** - Select one of two advanced options with the track-one core. This track leads to a B.S. degree accredited by American Chemical Society. Designed for students continuing their chemistry education in graduate school or seeking careers directly in the chemistry workforce. Provides most rigorous and complete chemistry foundation with most extensive laboratory experience. Undergraduate research is strongly encouraged.

<b>Advanced Chemistry</b>	Knowledge and skills are developed in organic, analytical, physical and inorganic chemistry. Six advanced laboratory courses. Choice of electives that support career goals. <a href="#">requirements</a> • <a href="#">courses by year</a> • <a href="#">course checklist</a> • <a href="#">course timetable</a> • <a href="#">additional info</a>
<b>Advanced Biochemistry</b>	The mix of advanced courses is modified to emphasize biochemistry principles and laboratory techniques.
<b>Track Two</b> - Select one of eight specialized options with the track-two core. Students earn a chemistry B.S. degree in four years while targeting a career direction in a second field or preparing for graduate school in chemistry or related areas.	
<b>Biochemistry</b>	Designed for those interested in working in biotechnology areas. 9 courses in biology, biochemistry including lab, & genetics.
<b>Business</b>	Created for chemists interested in working in marketing and sales or starting a small business. Reduces time to obtain MBA at OSU. Good stepping stone for law school. 8 courses in accounting, law, finance, organizational systems.
<b>Chemistry Education</b>	Designed to interface with the MS in Teaching program for high school teachers in Science & Math Educ. at OSU. 11 courses in teaching methods, a secondary area, and undergraduate teaching intern and seminar in chemistry
<b>Chemical Engineering</b>	Designed to offer selected chemical engineering concepts that may enhance career opportunities in areas such as electronics, polymers, and biotechnology. 9 courses in basic engineering & chemical engineering including mass and fluid transport, reaction engineering, & separations processes
<b>Environmental Chemistry</b>	Structured to provide a quality foundation for working in government, industrial or university labs studying the behavior of chemicals in the environment. 11 courses in biology, microbiology, toxicology, environmental chemistry and health, soil science, & hydrology
<b>Forensic Science</b>	A combination of courses designed to provide a chemistry major with a background in biology, biochemistry, and related areas and an emphasis in analytical chemistry that is appropriate for work in a crime lab or to pursue a graduate degree in forensic science.
<b>Materials Science</b>	Customized to include applied courses in a variety of materials areas to enhance career opportunities in, for example, electronics, polymers and biotechnology.
<b>Premed</b>	Directed at students planning to apply to medical or dental school who also like chemistry as a second career pathway. 9 courses in biology, biochemistry, bioethics, genetics, & statistics.

**B.A. Degree** - Designed for those interested in obtaining a broader background in liberal arts, including a foreign language, and may open up international opportunities, especially if coupled with OSU's International Degree Program. This option includes a second language requirement and additional liberal arts courses.

<sup>a</sup> Each track has a different set of core courses in chemistry, math, and physics.

Click [Catalog Version](#) to see the detailed catalog description of the options and sample programs.