

Chemistry

Chemistry is the study of structure, composition and properties of matter. Since chemistry is an experimental science, students learn to design and perform investigations to understand the physical world. Chemistry has traditionally been divided into four areas: organic, inorganic, physical and analytical. Specializations and subfields in chemistry include analytical chemistry, theoretical chemistry, medicinal chemistry and environmental chemistry. A degree in chemistry involves significant research based on observation of how substances interact and combine.

Undergraduate: Students pursuing an undergraduate program in chemistry may receive a Bachelor of Arts (BA) or a Bachelor of Science (BS) in Chemistry. Both the BA and BS degrees provide well-rounded academic programs, including general education course requirements in critical-thinking and laboratory skills for the BA degree and hard or natural sciences for the BS degree. A sample of courses available at the undergraduate level includes clinical/medical laboratory technology, biochemistry, atmospheric science, soil science, materials science and molecular biology.

Graduate: Students pursuing a graduate program in chemistry may earn a Master of Art (MA), Master of Science (MS), or a Doctor of Philosophy in Chemistry. Degree titles vary by institution and academic program. Graduate students in chemistry usually choose among a variety of degree concentrations in the field of chemistry such as, pharmaceutical chemistry, environmental chemistry or polymer chemistry. A sample of courses available at the graduate level includes Advanced Organic Chemistry I, Advanced Analytical Chemistry, Advanced Inorganic Chemistry II, Advanced Physical Chemistry I.

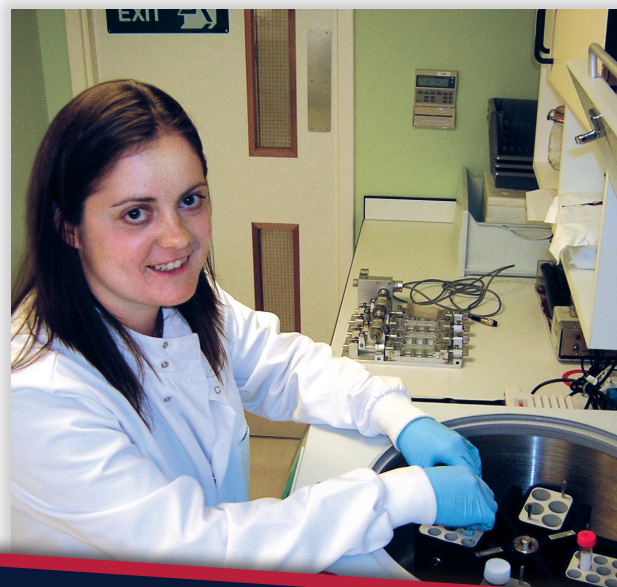
Occupations in Chemistry:

With a degree in chemistry consider professional opportunities as an industrial research chemist, pharmaceutical research chemist, high school chemistry teacher, chemical lab technician, food scientist, government inspector, crime lab analyst, environmental consultant, or a forensic chemist.

Choosing a Chemistry Program:

If you are considering continuing your education in this field, you should become familiar with academic trends and current development. Utilize current literature and consider the existing research of professors in matching your academic and career goals with the right institutions for you. EducationUSA Centers provide advising services and a diverse collection of materials to assist students searching for schools and financial aid program. To find the nearest EducationUSA Advising Center, visit www.educationusa.info/centers.php.

The American Chemical Society (ACS) is the accrediting organization for academic programs in chemistry. The ACS specifies course requirements that allow degree granting institutions to qualify graduates for ACS certification that most employers look for. Be sure to research all recognized regionally accredited programs at www.chea.org.





Associations and Organizations Affiliated With the Study of Chemistry:

- American Chemical Society (ACS), www.chemistry.org
- American Association for Clinical Chemistry, www.aacc.org
- AOAC International, www.aoac.org
- Royal Society of Chemistry, www.rsc.org

Scholarly Journals Related to the Study of Chemistry:

Chemistry & Biodiversity, Chemistry of Natural Compounds, Chemistry of Materials, International Journal of Chemistry, Chemistry & Biology, Chemistry World, Chemistry an Asian Journal, Chemistry in Great Britain, Chemistry in Ecology, Chemistry for Sustainable Development, Chemistry and Pharmacology of Drugs.

Undergraduate Program Search Print and Online Resources:

- College Board, www.collegeboard.com
- Search for schools with the College Board's online, "College Matchmaker."
- Read about specific majors and careers using the "Major and Career Profiles" search
www.collegeboard.com/csearch/majors_careers/profiles/

Graduate Program Search Print and Online Resources:

- Petersons www.petersons.com
- Peterson's Graduate Programs in the Physical Sciences, Mathematics, Agricultural Sciences, The Environment & Natural Resources; Book # 4

Find scholarships to study Chemistry:

- EducationUSA Financial Aid links,
www.educationusa.info/pages/students/finance.php
- Funding U.S. Study, www.fundingusstudy.org
- Peterson's Scholarship Directory, www.petersons.com
- The Fulbright Program, <http://fulbright.state.gov/>

If you are interested in pursuing higher education in the U.S. and would like further guidance please contact your local EducationUSA Advising Center