



Chemistry is the study of matter and elements and their reactions to each other. A chemist studies the properties of materials and their possible combinations to make our lives better. For example, a chemist may combine matter to create a stronger material to use in bulletproof vests, or a chemist might combine different elements to create a cure for cancer. Chemists are even involved with the creation of better solar panels and batteries; thus, the definition of chemistry is vast. Colorado Mesa University offers a B.S. in Physical Sciences with a concentration in Chemistry.

Students of [Chemistry](#) at Colorado Mesa University are exposed to a broad scope of modern chemical thought and techniques

through a series of lab and lecture courses in organic, biological, analytical, inorganic, and physical chemistry. Because professors have interests outside the classroom, students have opportunities to participate in research labs. Student researchers are currently performing cutting-edge chemical synthesis, natural product isolation, and chemical and instrumental analysis of interesting compounds. The chemistry curriculum at CMU prepares students for a career in chemical research, forensic science, other technology-based careers, and graduate studies. CMU also has many [clubs and organizations](#) that can help prepare students for advanced study in their field or build campus and community connections.

A person in this career field may:

- Analyze organic and inorganic compounds to determine chemical and physical properties, composition, structure, relationships, and reactions utilizing chromatography, spectroscopy, and spectrophotometry.
- Maintain laboratory instruments and troubleshoot malfunctions when needed.
- Develop, improve, and customize equipment, formulas, processes, and analytical methods.
- Conduct quality control tests.
- Direct, coordinate, and advise personnel in test procedures for analyzing components and physical properties of materials.
- Prepare test solutions, compounds and reagents for laboratory personnel to conduct tests.
- Compile and analyze test information.
- Write technical papers and reports.
- Indices changes in composition of substances by introducing heat, light, energy, and chemical catalysts for quantitative and qualitative analysis.

Major Skills & Characteristics

- Science and math ability
- Ability to develop theories
- Conduct research
- Perseverance
- Analytical skills
- Curiosity
- Ability to follow through with tasks
- Ability to utilize formulas
- Perform experiments safely
- Work independently and in groups
- Technological skills
- Communication skills
- Remain objective
- Attention to detail

Organizations That Commonly Employ Chemistry Majors

- Pharmacies
- Manufacturing firms
- Federal agencies
- State and local governments
- Research services
- Testing services
- Universities/colleges
- Pharmaceutical development companies
- Laboratories
- Businesses
- Food industries

Related Careers

- Agricultural scientist
- Biochemist
- Brewer lab assistant
- Chemical oceanographer
- Chemistry Technologist
- Clinical specialist
- College professor
- Color development chemist
- Crime lab analyst
- Cytotechnologist
- Entomologist
- Environmental health specialist
- Environmental engineer
- EPA inspector
- FDA inspector
- Food science technician
- Fire protection engineer
- Forensic chemist
- Genetic counselor
- High school teacher
- Hospital administrator
- Hydrologist
- Medical technologist
- Metallurgist
- Molecular biologist
- Occupational safety specialist
- Optometrist
- Perfumer
- Pharmaceutical sales rep
- Pharmacist
- Physician
- Planner
- Plastics engineer
- Product development manager
- Quality assurance manager
- Radiologist
- Science lab technician
- Soil scientist
- Specification writer
- System analyst
- Tissue technologist
- Toxicologist
- Vector control assistant
- Wastewater treatment chemist
- Water purification specialist
- Water scientist
- Yeast culture developer

Note: Some of the occupations listed above may require additional education, experience, or training beyond a Bachelor's Degree. To research these occupations use the Career Research Resources links below.

Career Research Resources:

Use these sites to research information about specific occupations such as nature of the work, training or qualifications, employment or job outlook, projections, earnings and wages.

O*NET-Online: <http://www.onetonline.org>

The U.S. Department of Labor

- In the occupational search box type in key words, job titles, or occupational codes to research various careers.

Occupational Outlook Handbook: <http://www.bls.gov/ooh/>

The Bureau of Labor Statistics

- **View OOH information on Life and Physical Science Professions** at <http://www.bls.gov/ooh/life-physical-and-social-science/home.htm>
- Use the A-Z index to select the occupation you are researching.

My Future.com: <http://www.myfuture.com>

The Department of Defense

- This site compiles information from departments of [Commerce](#), [Education](#) and [Labor](#).

Organizations and Associations Links

- American Chemical Society: <http://portal.acs.org>
- American Institute of Chemists: www.theaic.org
- Center for Chemistry Education: www.ccemu.org
- Chemical Heritage Foundation: www.chemheritage.org
- Colorado BioScience Association: www.cobioscience.com
- Royal Society of Chemistry: www.rsc.org
- Society of Chemical Industry: www.soci.org

Job Listings/Job Search Sites:

- American Chemical Society: <http://chemistryjobs.acs.org>
- Bio Careers: <http://biocareers.com>
- Career Jet: www.careejet.com/chemistry-jobs
- IHireChemists: www.ihirechemists.com
- Indeed: www.indeed.com
- Labrat: www.labratjobs.com
- Science and healthcare jobs: www.scienceandhealthcarejobs.com