

# Chemistry

## Occupational Possibilities

---

Chemistry majors develop skills that may lead to a wide variety of occupational tracks. Trained to think both analytically and creatively, chemists solve practical as well as research problems—skills that are readily transferable to many careers. Many chemistry majors go on to law, medical, business, or graduate schools, but they are prepared for careers in such diverse settings as research, education and government, and industry.

The following list, compiled from national data and from *Major Options* by Nicholas Basta (1991, New York: The Stonesong Press), presents a sampling of positions that chemistry majors often accept. Some of the listed occupations, such as art conservator, require additional skills, knowledge, or training. Advanced graduate study is generally expected for those positions marked with a • on the list.

### Government

- Regulatory chemist
- Safety inspector
- Agronomist
- County health department inspector
- Water works supervisor
- Superfund quality assurance manager
- Federal Drug Administration inspector
- Wastewater treatment system supervisor
- Occupational Safety and Health Administration enforcement agent

### Education/Training

- Professor
- Art conservator
- Science teacher
- Scientific editor
- Program director, professional society
- Museum education programs coordinator
- Laboratory manager
- Technical writer

### Industry

- Certified hazardous materials manager
- Pharmaceutical research chemist
- Application chemist
- Industrial hygienist
- Patent lawyer
- Chemical information specialist
- Market research analyst
- Sales manager
- Textile dyes analyst
- Environmental compliance officer
- Research scientist
- Polymer chemist
- Analytical chemist
- Chemical salesperson
- Chemical engineer

### Health Care

- Primary care physician
- Toxicologist
- Environmental risk assessor
- Radiation health specialist
- Nurse-Anesthetist
- Pathologist
- Medical examiner
- Serologist
- Dentist
- Pharmacist
- Food scientist/technologist
- Life scientist

# Skills and Abilities

---

Chemistry majors develop the analytical and creative skills necessary to ask questions about their observation of nature and to develop experiments to answer those questions. These observational and imaginative abilities allow them to see both qualitative and quantitative relationships as well. The list below is a representative sampling of specific skills and abilities which chemistry majors develop and which are applicable to a variety of occupational areas. For example, both a research chemist in a pharmaceutical company and the editor at a scientific press would regularly need to maintain accuracy while applying knowledge creatively.

## Analysis

Summarizing research findings  
Attending to details  
Analyzing data  
Testing hypotheses  
Developing theories  
Clarifying problems  
Identifying relationships between problems/solutions  
Reasoning by analogy  
Perceiving patterns/structures  
Applying logic to problems  
Evaluating data and results

## Investigation

Remaining objective  
Reviewing relevant data  
Applying concepts  
Utilizing formulas  
Gathering information  
Observing carefully  
Asking questions  
Designing experiments  
Applying knowledge creatively

## Technical Skills

Processing data  
Solving quantitative problems  
Calculating  
Tabulating data  
Sampling for surveys  
Using laboratory equipment  
Maintaining precision and accuracy

## Communication

Writing for technical and non-technical audiences  
Organizing and reporting data  
Designing charts/graphs  
Informing/explaining  
Reporting results and conclusions orally and in writing

## For More Information

---

For information about careers, graduate/professional schools, internships, professional associations, or job descriptions, and for library resources:

University Career and Employment Services  
110 Burge Union  
864-3624

For information about choosing careers:

Career Counseling and Planning Service  
2214E Watkins Health Center  
864-2767

For information about majors and concentrations in chemistry:

Chemistry Department  
2010 Malott Hall  
864-4670