

CHEMISTRY

What can I do with this degree?

AREAS

EMPLOYERS

STRATEGIES

ANALYTICAL

Research
Development
Analysis and Testing
Consulting
Environmental
Forensics

Federal, state, and local government
Federal agencies including National Aeronautics and Space Administration
Manufacturing firms including textile, petroleum, food, electronics, glass, paper, packaging, machinery, cosmetics, paint, drug, and chemical industries
Industrial production and inspection agencies
Research laboratories and organizations
Environmental protection organizations
Colleges and universities

Familiarize yourself with federal, state, and local government job application processes.
Gain experience in a laboratory setting.
Develop proficiency with high-tech scientific equipment.
Take electives in your area of interest.

BIOCHEMICAL

Research
Development
Analysis and Testing
Consulting
Quality Control
Medical
Environmental
Industrial Health & Safety
Hospital Administration

Research laboratories and organizations
Pharmaceutical and medical research firms
Biotechnology firms
Plant and animal breeders and growers
Food processors
Industrial production and inspection agencies
Environmental protection organizations
Federal, state and local government, such as the Centers for Disease Control
Colleges and universities

Take additional courses in biology, biochemistry, molecular biology, genetics, cytology, and physiology.
Develop excellent laboratory and computer skills.
Get involved with undergraduate research with professors.
Join related professional organizations.
Complete a related internship with an organization in the area of your interest.

ORGANIC

Research
Development
Analysis and Testing
Quality Control
Consulting

Industries related to petroleum, coal, wood products, plastics, textiles, and food
Manufacturing firms developing new synthetic materials and new production processes
Research organizations
Federal and state government
Colleges and universities

Gain additional laboratory and research experience through internships and summer jobs.
Get involved with undergraduate research with professors.

AREAS

EMPLOYERS

STRATEGIES

GEOCHEMISTRY

Environmental Remediation
Research & Development
Analysis & Testing

Research laboratories and organizations
Industries involved in mining, electronics, and
synthetic materials
Federal and state government
Colleges and universities

Take geology & environmental science
electives.

INORGANIC

Research
Analysis and Testing
Quality Control
Consulting

Environmental organizations
Water processing plants
Natural resources organizations

Choose appropriate coursework to specialize in an
area.
Develop additional laboratory skills and experience.

POLYMER CHEMISTRY

Analysis & Testing
Research & Development

Industries involving textiles and plastics

Gain research experience through internships,
part-time employment, and summer jobs.

PHYSICAL

Research
Development
Analysis and Testing
Quality Control
Consulting

Research laboratories and organizations
Industries involving electrical, nuclear, gas, heat, or
light energy
Federal government
Colleges and universities

Take related courses in social sciences and
economics.
Develop strong mathematical background.

EDUCATION

Teaching
Research
Administration

Private and public secondary schools
Colleges and universities

Obtain certification/licensing for teaching in public
schools.
Acquire a master's degree for community college
teaching and a Ph.D. for colleges and
universities.
Take courses in public speaking.

BUSINESS

Technical Sales/Marketing
Pharmaceutical Sales
Management
Consulting
Industrial Quality Control
Research & Development

Manufacturing firms
Drug stores
Medical/Pharmaceutical supply companies
Industries including textiles, petroleum, food,
electronics, glass, paper, packaging, machinery,
cosmetics, paint, drugs, and chemicals.
Agricultural product companies
Environmental management organizations
Waste management firms

Obtain a minor in business.
Develop strong verbal and written communication,
interpersonal, and organizational skills.
Hold leadership positions in campus organizations.
Join related student organizations, e.g., American
Marketing Association, Financial Management
Association, Public Relations Student Society of
America, etc.

AREAS	EMPLOYERS	STRATEGIES
<u>TECHNICAL WRITING</u> Writing Editing	Research product development departments and organizations Publishing firms including books, scientific and research journals, technical press, large newspapers, and wire services Internet sites	Take advanced technical writing courses. Develop word processing and desktop publishing skills.
<u>LAW</u> Patent Law Legislation and Lobbying	Manufacturing firms Research and development firms Law firms Private practice Environmental agencies	Obtain law degree to become an attorney.
<u>INFORMATION SPECIALISTS/TECHNICAL LIBRARIES</u>	Special libraries Research organizations Colleges and universities Large manufacturing firms, especially chemicals and pharmaceuticals	Obtain master's degree in library and information science. Develop computer retrieval skills. Join Special Libraries Association, Chemistry Division.

GENERAL INFORMATION

- Undergraduate degree sufficient for entry-level positions such as lab coordinator, research assistant, product testing or analysis, technical sales, or service representative.
- Maintain high grade point average and secure strong recommendations for graduate school.
- Master's degree sufficient for most applied research positions, industrial work, and some community college teaching.
- Find research opportunities with professors and other experts in the field to gain experience.
- Ph.D. degree required for university teaching and advanced positions in management and research and development. Postdoctoral experience is preferred for research positions in industry, universities, and government.
- Advanced degrees help speed career advancement.
- Develop strong computer, mathematics, and science skills/knowledge.
- Obtain part-time, volunteer, co-op, internship, or summer experience.
- Obtain practical experience using various laboratory equipment and high-tech scientific equipment and data.
- Complete an undergraduate research project.
- Consider electives in computer science, engineering, business, public speaking, and writing.
- Join related student professional organizations.

What can I do with this degree?

CHEMISTRY

Chemistry Links:

[Professional Science Masters](#)

[Sloan Foundation Careers in Science, Technology, Engineering and Mathematics](#)

[American Academy of Forensic Science](#)

[American Chemical Society](#)

[Science Careers](#)

[Pharmaceutical Jobs from Hirehealth](#)

[PhDs.org](#)

[Chemists and Materials Scientists from the Occupational Outlook Handbook](#)

[Science Technicians from the Occupational Outlook Handbook](#)

[Teachers-Postsecondary from the Occupational Outlook Handbook](#)

AREAS

ANALYTICAL

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Consulting
Environmental
Forensics

EMPLOYERS

Federal, state, and local government
Federal agencies including National Aeronautics and Space Administration
Manufacturing firms including textile, petroleum, food, electronics, glass, paper, packaging, machinery, cosmetics, paint, drug, and chemical industries
Industrial production and inspection agencies
Research laboratories and organizations
Environmental protection organizations
Colleges and universities

STRATEGIES

Familiarize yourself with federal, state, and local government job application processes.
Gain experience in a laboratory setting.
Develop proficiency with high-tech scientific equipment.
Take electives in your area of interest.

AREAS

BIOCHEMICAL

Research
Development
Analysis and Testing
Consulting
Quality Control
Medical
Environmental
Industrial Health & Safety
Hospital Administration

EMPLOYERS

Research laboratories and organizations
Pharmaceutical and medical research firms
Biotechnology firms
Plant and animal breeders and growers
Food processors
Industrial production and inspection agencies
Environmental protection organizations
Federal, state and local government, such as the Centers for Disease Control
Colleges and universities

STRATEGIES

Take additional courses in biology, biochemistry, molecular biology, genetics, cytology, and physiology. Develop excellent laboratory and computer skills.
Get involved with undergraduate research with professors. Join related professional organizations. Complete a related internship with an organization in the area of your interest.

AREAS

ORGANIC

Research
Development
Analysis and Testing
Quality Control
Consulting

EMPLOYERS

Industries related to petroleum, coal, wood products, plastics, textiles, and food
Manufacturing firms developing new synthetic materials and new production processes
Research organizations
Federal and state government
Colleges and universities

STRATEGIES

Gain additional laboratory and research experience through internships and summer jobs. Get involved with undergraduate research with professors.

AREAS

GEOCHEMISTRY

Environmental Remediation
Research & Development
Analysis & Testing

EMPLOYERS

Research laboratories and organizations
Industries involved in mining, electronics, and synthetic materials
Federal and state government
Colleges and universities

STRATEGIES

Take geology & environmental science electives.

AREAS

INORGANIC

Research
Analysis and Testing
Quality Control
Consulting

EMPLOYERS

Environmental organizations
Water processing plants
Natural resources organizations

STRATEGIES

Choose appropriate coursework to specialize in an area. Develop additional laboratory skills and experience.

AREAS

POLYMER CHEMISTRY

Analysis & Testing
Research & Development

EMPLOYERS

Industries involving textiles and plastics

STRATEGIES

Gain research experience through internships, part-time employment, and summer jobs.

AREAS

PHYSICAL

Research
Development
Analysis and Testing
Quality Control
Consulting

EMPLOYERS

Research laboratories and organizations
Industries involving electrical, nuclear, gas, heat, or light energy
Federal government
Colleges and universities

STRATEGIES

Take related courses in social sciences and economics. Develop strong mathematical background.

AREAS

EDUCATION

Teaching
Research
Administration

EMPLOYERS

Private and public secondary schools
Colleges and universities

STRATEGIES

Obtain certification/licensing for teaching in public schools. Acquire a master's degree for community college teaching and a Ph.D. for colleges and universities.
Take courses in public speaking.

AREAS

BUSINESS

Technical Sales/Marketing
Pharmaceutical Sales
Management
Consulting
Industrial Quality Control
Research & Development

EMPLOYERS

Manufacturing firms
Drug stores
Medical/Pharmaceutical supply companies
Industries including textiles, petroleum, food, electronics, glass, paper, packaging, machinery, cosmetics, paint, drugs, and chemicals.
Agricultural product companies
Environmental management organizations
Waste management firms

STRATEGIES

Obtain a minor in business. Develop strong verbal and written communication, interpersonal, and organizational skills. Hold leadership positions in campus organizations. Join related student organizations, e.g., American Marketing Association, Financial Management Association, Public Relations Student Society of America, etc.

AREAS

TECHNICAL WRITING

Writing
Editing

EMPLOYERS

Research product development departments and organizations
Publishing firms including books, scientific and research journals, technical press, large

newspapers, and wire services

Internet sites

STRATEGIES

Take advanced technical writing courses. Develop word processing and desktop publishing skills.

AREAS

LAW

Patent Law

Legislation and Lobbying

EMPLOYERS

Manufacturing firms

Research and development firms

Law firms

Private practice

Environmental agencies

STRATEGIES

Obtain law degree to become an attorney.

AREAS

INFORMATION SPECIALISTS/TECHNICAL LIBRARIES

EMPLOYERS

Special libraries

Research organizations

Colleges and universities

Large manufacturing firms, especially chemicals and pharmaceuticals

STRATEGIES

Obtain master's degree in library and information science. Develop computer retrieval skills. Join Special Libraries Association, Chemistry Division.

GENERAL INFORMATION

Undergraduate degree sufficient for entry-level positions such as lab coordinator, research assistant, product testing or analysis, technical sales, or service representative.

Maintain high grade point average and secure strong recommendations for graduate school.

Master's degree sufficient for most applied research positions, industrial work, and some community college teaching.

Find research opportunities with professors and other experts in the field to gain experience.

Ph.D. degree required for university teaching and advanced positions in management and research and development. Postdoctoral experience is preferred for research positions in industry, universities, and government.

Advanced degrees help speed career advancement.

Develop strong computer, mathematics, and science skills/knowledge.

Obtain part-time, volunteer, co-op, internship, or summer experience.

Obtain practical experience using various laboratory equipment and high-tech scientific equipment and data.

Complete an undergraduate research project.

Consider electives in computer science, engineering, business, public speaking, and writing.

Join related student professional organizations.

Prepared by the Career Planning staff of Career Services at The University of Tennessee, Knoxville. (1995, Revised 2000, 2005) UTK is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA Employer