



WHAT YOU WILL LEARN

Chemical technicians play a vital role in fields involving medical drugs, environmental pollution analysis, cosmetics, chemicals, plastics, alternative energy sources, fabrics and foods.

Chemical technicians use analytical techniques, many with state-of-the-art instrumentation, to aid in the development, testing and use of products.

The major purpose of the Chemical Technology Program at CCM is to prepare graduates for employment at the technician level for research, testing and quality control laboratories associated with the internationally prestigious pharmaceutical, chemical, personal care products, food industry, environmental and chemical corporations located in New Jersey.

Students in this program learn modern chemical methods and instrumentation. They graduate with both theoretical knowledge and practical training and an Associate of Applied Science (AAS) degree.

WHY STUDY CHEMICAL TECHNOLOGY AT CCM?

In the course of their studies, students will use laboratory instrumentation to analyze real-world samples. Class sizes are small and students receive individual attention as well as supplemental help and free tutoring, if needed.

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Curriculum Checksheet: www.ccm.edu/checksheets

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CAREERS

Chemical technicians often work in laboratories or in manufacturing facilities, including chemical manufacturing plants. To enter the occupation, chemical technicians typically need an associate's degree or two years of postsecondary education. Some chemical technicians receive on-the-job training as well.

The median annual wage for chemical technicians is \$48,990. Employment is projected to grow 5 percent from 2020 to 2030. About 7,500 openings for chemical technicians are projected each year, on average, over the decade.

Potential career options include:

- Chemical material and product analysts
- Chemical research technicians
- Forensic technicians
- Pilot plant supervisors
- Plant control chemists
- Pollution analysts
- Product sales representatives
- Quality control technicians

CONTACT INFORMATION

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Facilities

Our laboratory facilities include not only standard lab equipment, but the most modern instrumentation including:

- Benchtop nuclear magnetic resonance (NMR)
- Gas (GC) and liquid chromatography (HPLC)
- Atomic absorption (AA)
- UV and visible spectroscopy
- Infrared spectroscopy (FTIR)
- Electrophoresis (HPCE)
- Polymerase chain reaction (PCR)
- Fourier transform infrared spectroscopy (FTIR)

Faculty

The faculty are committed to providing quality education and maintains close relationships with students throughout their educational experience.

Many faculty members have had industrial experience, are involved in research, and have published articles in peer-reviewed journals. In addition, many belong to professional organizations including the American Chemical Society, The American Society for Microbiology and the Metropolitan Association of College and University Biologists.

Several faculty members have been nominated or won the National Institute for Staff and Organizational Development Excellence Award.

Experiential Learning

The Biology & Chemistry Department works collaboratively with Career Services in providing opportunities to the students for paid and unpaid internships.

To learn more about our Transfer Services and Career Services, visit: www.ccm.edu/student-life/campus-services/

WHERE YOU CAN GO!

Graduates qualify for entry-level positions in research laboratories, quality-control laboratories, pilot plants, chemical production and environmental-monitoring facilities, testing laboratories and forensic laboratories.

Graduates can take advantage of employment opportunities offered by prestigious companies located in New Jersey.

Other graduates pursue baccalaureate degrees in chemistry or related disciplines at four-year institutions. Many employers will pay for continuing education towards a four-year degree and reward the employee with a pay increase and new classification if a more advanced degree is attained.

Students interested in transferring to other colleges should meet with an academic advisor as well as confer with the Office of Transfer Services to learn about transfer programs.

For additional information about career opportunities in chemistry, see www.acs.org.

CURRICULUM

General Education Foundation (21 CR)

COMMUNICATION (6 CR)

English Composition I	ENG 111	3
English Composition II	ENG 112	3

MATH/SCIENCE/TECHNOLOGY (3 CR)

Statistics	MAT 124	3
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SOCIAL SCIENCE OR HUMANITIES (3 CR)

Choose from General Education course list (Humanities/Social Science)		3
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GENERAL EDUCATION ELECTIVES (9 CR)

Choose from General Education course list		9
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CHEMICAL TECHNOLOGY CORE (39 CR)

General Chemistry I Lecture	CHM 125	3
General Chemistry I Lab	CHM 126	1
General Chemistry II Lecture	CHM 127	3
General Chemistry II Lab	CHM 128	1
General Biology I	BIO 121	4
General Biology II	BIO 122	4
Analytical Chemistry – Instrumental Analysis	CHM 218	4
Essentials of Organic Chemistry	CHM 210	4
Concepts of Physics	PHY 103	4
TECHNICAL ELECTIVES (11 CR)		11

TOTAL

60

Note: You must see a faculty advisor to plan your sequence of courses. For the most up-to-date listing of courses, see the Curriculum Checklist for this program on the CCM website at www.ccm.edu/checksheets.

