

CHEMICAL TECHNOLOGY (CHMT)

IvyTech.edu/chemical-technology

OVERVIEW



The Chemical Technology program at Ivy Tech gives students knowledge of techniques and instruments that will be useful in almost every industry. Our students learn about safe-handling, manipulation, and analysis of chemical compounds in wastewater treatment, quality control pharmaceuticals, research and development and toxicology.

The Chemical Technology program offers students a variety of hands-on learning experiences. Students at Ivy Tech will be able to perform cutting-edge analytical techniques using the same equipment used in industry, giving our students the advantage when they enter into the workforce.

TWO-YEAR PROGRAM OPTIONS

ASSOCIATE OF APPLIED SCIENCE

(60 credit hours = 4 semesters)

Associate of Applied Science degree programs are two-year programs that prepare students for careers, career changes and career advancement. Students who need to take longer to complete the degree because of job or family obligations can take the program over a longer period of time. AAS programs may also prepare students for transfer to four-year institutions. These programs offer education in recognized technical areas and specialties with emphasis on analysis, synthesis and evaluation. The program content, which is approximately 30% general education and 70% professional/technical, provides depth and breadth in conceptual and professional/technical skills. The general education courses equip students with the problem solving, communications, scientific and mathematical skills to compete successfully in the job market.

The Associate of Applied Science degree in Chemical Technology prepares students for direct entry into the workforce as laboratory technicians. Graduates accept jobs in areas such as manufacturing, pharmaceuticals, quality control, toxicology, and environmental testing.

WHY CHOOSE THE CHEMICAL TECHNOLOGY PROGRAM?

Chemical Technicians use state-of-the-art instrumentation to gather data and solve problems. Classes use hands-on learning experiences to teach students how to prepare samples, operate and troubleshoot instrumentation, analyze data, and ensure laboratory safety. Example lab work includes analysis of water for contamination and testing soil for nutrients. Students also gain internship experience to help prepare them for employment. The Chemical Technology program is a good fit for people that have an interest in science and problem solving and like hands-on work.

JOB OPPORTUNITIES

There are many local job opportunities for Chemical Technicians and our graduates have gone on to work at places such as Evonik, Akina, Dow Agro and the City of Lafayette, just to name a few. Indiana pays an average salary of approximately \$43,000 to chemical technicians and projects good local job growth over the next ten years (www.hoosierdata.in.gov).

LABORATORY FACILITIES

The Chemical Technology program has its own lab dedicated to chemical preparation and instrumentation. Students work with equipment such as nuclear magnetic resonance (NMR), high performance liquid chromatography (HPLC), gas chromatography (GC), mass spectrometry (MS), inductively couple plasma spectroscopy (ICP), and infrared spectroscopy (IR).

Ready to get started?

APPLY NOW FOR FREE

at IvyTech.edu/applynow

IF YOU'VE GOT QUESTIONS, WE'VE GOT ANSWERS.

FOR MORE INFORMATION:

School Advanced Manufacturing, Engineering & Applied Science

765.269.5229



Ivy Tech Community College-Lafayette

Chemical Technology

2018-2019

THE FOLLOWING SUGGESTED REGIONAL SEQUENCE INCLUDES ALL COURSE REQUIREMENTS FOR THIS DEGREE. YOU MUST CONSULT WITH AN ACADEMIC ADVISOR TO DETERMINE WHICH ELECTIVES BEST MEET YOUR CAREER GOALS.

ASSOCIATE OF APPLIED SCIENCE (AAS) DEGREE

Course #	Title	Credit Hours
Semester 1		
		13 credits
CHMT 101	Laboratory Safety & Techniques	3
COMM 104	Workplace Communication	3
ENGL 111	English Composition	3
CHEM 101	Introductory Chemistry I	3
OR		
CHEM 105	General Chemistry I	5
		15 credits
Semester 2		
CHEM 102	Introductory Chemistry II	3
OR		
CHEM 106	General Chemistry II	5
CHMT 102	Scientific Computing & Data Analysis	3
MATH 136	Quantitative Reasoning Elective	3
XXXX XXX	Chemical Technology Statewide Elective	3-4
XXXX XXX	Humanities Social & Behavioral Sciences Elective	3
		16 credits
Semester 3		
CHMT 201	Spectroscopic Methods	4
CHMT 210	Quantitative Analysis	3
CHMT 216	Organic Laboratory Techniques	3
CHEM 204	Lectures in Organic Chemistry	3
XXXX XXX	Chemical Technology Statewide Elective	3
		16 credits
Semester 4		
CHMT 202	Chromatographic Methods	4
^ CHMT 204	Scientific Presentation & Reporting	3
CHMT 250	Environmental Chemistry	3
XXXX XXX	Chemical Technology Statewide Elective	3-4
CHMT 280	Co-op/ Internship	3
		Total Credit Hours: 60



WASTEWATER MANAGEMENT CERTIFICATE

Course #	Title	Credit Hours
Semester 1		
CHMT 102	Scientific Computing and Data Analysis	3
CHMT 204	Scientific Presentation and Reporting	3
CHMT 250	Environmental Chemistry	3
		Total Credit Hours: 9

FOR MORE INFORMATION:

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Symbol Key
 ^Capstone Course

For more information on course offerings, enrollment, or the Chemical Technology degree program in the Lafayette region, visit www.ivytech.edu/lafayette or call (765) 269-5295.

