# **CHEMISTRY**

Bachelor of Science



# **Introduction to the Major**

Chemistry at Clark prizes courageous scientific exploration — and a sense of adventure. Take matter into your own hands.

As a chemistry major, you won't just focus on memorizing theories and formulas. You will engage with real-world problems as early as your first year, collaborate with leading professors making chemical discoveries or developing new materials, intern with successful alumni scientists, and present your research at national scientific conferences. Chemistry majors often produce results that are included in research articles published in prominent, peer-reviewed chemistry and biochemistry journals.

#### **Highlights**

The standard track prepares you to pursue a health profession, public school teaching, technical sales, or work in other chemistry-related fields. The American Chemical Society (ACS)-certified track is recommended if you plan a career in the chemical sciences or research.



# "I love the focus on research at Clark. With a chemistry degree you get tons of hands-on research and a strong liberal arts background."

- Kelsey Perry '19, Community Liaison Officer, Mayflower Wind



# What can I do with my major?

#### **JOBS & EMPLOYERS**

Our graduates have careers in a wide range of industries including biotechnology, food science, healthcare, pharmaceutical, energy storage, and higher education.

Other potential career paths include product development

Other potential career paths include product development, forensic science, chemical engineering, and more!

#### **GRADUATE PROGRAMS**

Chemistry alumni pursue advanced study at top schools including Brown, Columbia, Harvard, MIT, NYU, Northwestern, Tufts, UCLA, UMass Medical School, Worcester Polytechnic, and Yale.

#### **Foundational Courses**

#### **CHEM 131: Organic Chemistry Principles**

Introduces students to the chemistry of carbon-based molecules.

#### **CHEM 140: Analytical Chemistry**

Introduces modern methods of quantitative analysis.

#### CHEM 260: Physical Chemistry I

Focuses on the principles governing chemical energy and reaction dynamics.

#### BCMB 271: Foundations in Biochemistry

Emphasizes the biochemical study of biological macromolecules including proteins and nucleic acids.





Discover and Demonstrate your Purpose







## Year 1



#### **Explore the Chemistry Department**

Check out our website to learn who we are and where we are located.

Schedule an appointment with a chemistry faculty member during the first few weeks of the semester. Attend faculty and TA office hours for help.



#### **Get Connected**

Join a club that aligns with your interests such as Women in STEM, Future LatinX in STEM, or the Chemistry Club.



#### **Explore on and off campus**

Worcester is home to a thriving biotechnology, life sciences, and STEM scene as well as museums and a vibrant arts community. Check out MassBioEd's virtual laboratory tours and explore all that the wider community offers.

## Year 2



#### Declare your major and define your interests

Learn more about the American Chemical Society (ACS) or standard chemistry major tracks. Identify faculty members who share your interests and consider asking one to become your adviser.



#### Set yourself up for success

Participate in the Alumni Job Shadow program through the Career Connections Center (CCC) to experience a day on the job.

Visit CareerLab in ASEC to get your resume ready and get tips on building a strong LinkedIn profile.



#### Apply what you have learned

Seek out a summer fellowship to conduct research at Clark or an internship or volunteer opportunity. Explore an Honors research project in chemistry or the "4+1" Accelerated Master's Degree program.

# Year 3



# Take matters into your own hands - become a researcher!

Join a chemistry research lab. Build your experimental skillset through personalized elbowto-elbow learning with a faculty member and graduate students.



#### Put your learning into action

Reach out to the CCC to explore industries of interest, such as biotechnology or clean energy, and to strategize on finding and applying for internships or post-graduate positions.



#### **Build your expertise**

Take mini-courses offered in the Chemistry Department to expand your skills, including science career development, communication, and experimental techniques.

# Year 4



#### Pull it together with your capstone

Your capstone draws on all your learning and experiences at Clark. You might engage with others on a research project or in a course that challenges you to work together and improve your critical thinking and communication skills.



### ్లో Share what you have learned

Work as a Peer Learning Assistant or student leader in a club or organization. Present the research that you completed over the summer or during the academic year at ClarkFEST.



#### Get ready to launch

Talk with faculty and your adviser about your job search or graduate school applications.

Get advice and participate in a mock interview with Clark alumni.