

# CHEMISTRY *with a Concentration in Forensic Chemistry*

COLLEGE OF ARTS + SCIENCES



## COURSES

Our program structure includes thorough, specialized coursework in forensic laboratory analysis with supporting classes in chemistry, physics, biology and statistics so you're prepared for anything. Here's a sample of what you can expect to learn and do:

### General Chemistry Lecture + Lab

This course covers the fundamental principles of general chemistry, including the development of modern atomic theory and its role in chemical bonding, structure and reactivity, an introduction to thermodynamics and kinetics, and development of equilibria concepts.

### Organic Chemistry Lecture + Lab

Students build a strong foundation in organic chemistry and combine knowledge with practical skills by synthesizing, purifying, and identifying organic compounds. Techniques include: acid/base extraction, recrystallization, distillation, organic reactions, IR spectroscopy, refractive index, melting point and NMR.

### Introduction to Forensic Methods

This course is an introduction to instrumental and chemical analysis techniques used in forensic investigations. Topics covered include: serological analysis, fingerprint analysis, soil and glass analysis, hair and fiber analysis, arson/explosive analysis, document analysis, and drug/toxicological analysis.

### Forensic Instrumental Analysis

This lecture/lab applies the principles of instrumental analysis to forensic chemistry. Students learn advanced principles of electrochemical, spectrochemical, and chromatographic analysis through work on instrumentation, sample preparation, data analysis, and recent developments in analytical techniques.

**SO YOU'VE FIGURED IT OUT.** Deduced it. You've found the Sherlock that lives deep in your gut, and you're compelled to catch the bad guys...with science. As a chemist, you can answer questions like: is this water safe to drink? Will these things blow up if I mix them together? With an additional concentration in forensic chemistry, you can answer questions like: Was this person poisoned? Was this fire started intentionally? And most importantly—can we reconstruct the elements of the crime? At Loyola, we'll give you both the specialized chemical knowledge and hands-on lab experience you need for your career.

## Possible Careers:

- Chemical engineer
- Forensic scientist
- Toxicologist
- Environmental chemist

**ATTENDING LOYOLA** means being in the heart of New Orleans. Our campus is located in the city's historic Uptown neighborhood, just a short drive from the Central Business District, the city's hub of innovation and strategic thinking. You'll learn to hone your talents in the city named #1 new brainpower city in America and the #5 city in the U.S. for women in tech.