



Forensic Science

Forensic science is a very unique and challenging application of science to the law. This program is designed to give students a broad theoretical and practical background in the scientific, legal, and investigative aspects of forensic science.

Graduates of the program are uniquely prepared to continue their education in forensic science graduate programs or immediately begin careers in major crime labs.

Forensic scientists (also commonly referred to as criminalists) interpret evidence, identify suspects using DNA and trace blood components, perform drug analyses and toxicological studies, prepare courtroom evidence and otherwise help to confirm the guilt or innocence of a person charged with a crime.

Employment Opportunities

There are many opportunities for students who major in forensic science. Possible career paths available include:

- criminal investigation
- fingerprint technician
- photography lab
- evidence technicians
- homicide investigator
- toxicology/serology
- drug analysis
- ballistics expert
- food and drug inspector

Students should be aware that they will probably need to pursue a master's degree and possibly a Ph.D. to obtain promotion to senior management positions in crime labs.

Employment opportunities are expected to expand as

- the public demand for safety in food and drug products grows. Most inspectors are hired by the US Food and Drug Administration. However, many private pharmaceutical and food processing companies also hire inspectors to self-regulate their product safety and quality.
- homeland security expands to include public health laboratories with forensic capabilities.
- public concern escalates about the necessity of assuring funds for crime fighting agencies. Job openings will be available in federal and state operated forensic science and crime laboratories.

Degree Options

The forensic science program is coordinated with the criminal justice, chemistry, biology, health professions and anthropology programs. It is a four-year Bachelor of Science in Applied Science (BSAS) degree offered by the Bitonte College of Health and Human Services and overseen by the Department of Criminal Justice and Forensic Science.

A minor in forensic science is also available.

Faculty

The forensic science program is staffed by faculty from the criminal justice, chemistry, biology, anthropology and health professions departments.

YSU maintains a faculty-student ratio of 1:20, among the best of state-affiliated universities in Ohio.

Accreditation

Youngstown State University is accredited by the Higher Learning Commission and a member of the North Central Association.

Facilities

The program's criminalistic laboratories are equipped with microscopic and other equipment commonly found in crime laboratories as well as conventional instrumentation, such as UV-visible and infrared spectrometers and gas and liquid chromatograph.

(see following page)

For more information about this program, go to
www.ysu.edu, click on Colleges, then Bitonte College of Health & Human Services

Contact the Undergraduate Admissions Office at:

Telephone: 877-468-6978 • 330-941-2000 • Video Phone: 866-757-1353 • Fax: 330-941-3674 • E-mail: enroll@ysu.edu

www.ysu.edu

More specialized instrumentation such as gas chromatograph/mass spectrometer and DNA profiling facilities are available for teaching and research through special arrangements with faculty members in other departments and personnel at nearby forensic science labs.

Outside the Classroom

Many of the skills needed to be a forensic scientist are taught “on the job.” Because of this, the forensic science degree requires each student to complete an internship at a forensic science laboratory.

Students are also expected to select a specialty area in which they will complete an independent study. Students may wish to study ballistics, blood and urine analysis for toxins, drugs or another area of interest.

Curriculum Overview

Criminal justice courses

- Introduction to Criminal Justice
- Policing
- Evidence
- Fire & Safety
- Forensic Science Investigation/Lab

- Forensic Science and the Criminal Justice System
- Criminal Justice Internship
- Directed Individual Study

Anthropology courses

- Intro to Anthropology
- Archaeology

Health professions

- Healthy Lifestyles
- Medical Terminology

Biology courses

- General Biology: Molecules and Cells
- General Biology: Organisms and Ecology
- Cell Biology: Fine Structure
- Microbiology/Lab
- Intro to Human Gross Anatomy
- Molecular Genetics/Lab

Chemistry courses

- General Chemistry Recitation
- General Chemistry 1, 2 and Labs
- Quantitative Analysis/Lab
- Organic Chemistry 1, 2 and Labs
- Chemical Toxicology

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