

Forensic Science

Forensic science is the application of science to the law. . .

For most of us this conjures up images of a person dusting for fingerprints or performing some test to solve a crime. It is an unfortunate aspect of modern life that there is a need for persons who can do just that. The American Academy of Forensic Sciences currently has 10 sections representing different fields of the forensic sciences.

What you can do with a degree in Forensic Science. . .

The undergraduate major in Forensic Science is designed to provide students from varied backgrounds and academic interests with a curriculum that surveys the most popular forensic sciences. Individuals with the BS in Forensic Science may go into law enforcement at any level as the science background supports proper evidence collection and processing. Such law enforcement jobs occur from the local (such as sheriff) to state and federal levels. Many become crime lab scientists, particularly in DNA analysis or forensic chemistry. Others find employment in private industry, such as in quality control, working as laboratory personnel. The degree also provides preparation for post-graduate education, either in those forensic sciences that require higher degrees or in other fields that require a science background, such as medical school or science education.

Popular career choices include forensic DNA analyst, forensic chemist, trace evidence analyst, Forensic Scientist/Criminalist I positions in crime labs, law enforcement officer (sheriff, police, border patrol, FBI), US Patent Office, corrections, primary/secondary science educator, private industry laboratory personnel in quality control and/or safety, and US military. The list increases if forensic sciences that require higher degrees (Masters, Ph.D.) are included: forensic anthropologist, forensic toxicologist, and forensic pathologist.

Program Options. . .

There are two tracks: Evidence Technician and Evidence Analyst.

- The Evidence Technician track serves those individuals who prefer to be crime scene technicians, serving as sworn officers (if required) of law enforcement agencies. Many Criminal Justice majors might choose to double major with this track if they plan to become a scene technician or if they simply want to support their law enforcement activities with a science background. The Technician Track is also for students who are undecided about a science major (or any major) and would like to explore their interest in science).
- The Evidence Analyst track is for individuals who want to work in a crime lab performing specific evidence tests; this track has about 15 additional hours of upper division science, particularly biology and math. This is the track for individuals who are double majoring with Biology or Chemistry. This track also serves students who have a strong science interest but are uncertain which science major to declare.

Program Options continued. . .

- Due to its broad interdisciplinary nature, forensic science complements other fields as a second major. Majors which mesh well with Forensic Science include Biology, Chemistry, Clinical Laboratory Science, Criminal Justice Studies, and Anthropology.

Getting in. . .

Students must have and maintain a minimum GPA of 2.2 to be admitted to and to remain in Forensic Science. Anyone with an interest in science and law, especially if they are not certain which science to pursue, can apply to the program. Although the Forensic Science program does not do background checks on its students, applicants should have no criminal record. (Employees in crime labs and law enforcement agencies must have a clean criminal record, which is verified by a background check; these employees frequently must also undergo a polygraph test.)

Unique characteristics of UND's Forensic Science. . .

- The program has state-of-the-art alternate light equipment for revealing latent prints and questioned document analysis.
- UND has the only undergraduate program in Forensic Science in the Northern Tier states.
- Forensic Science provides an economical undergraduate education which includes laboratory training in common criminalistic techniques (e.g. fingerprint development, evidence collection).
- UND has the only forensic science teaching laboratory modeled after a functioning crime lab.
- Our laboratory information management software is the same as that used in some state and federal crime labs.
- The teaching laboratory features a computer lab that provides student access to standard forensic database software.
- Thanks to the generosity of Seagate Technologies, our program features a darkroom that provides students with training in latent print development and radiography.
- The lab recently added a Fourier Transform Infrared Spectrometer for student training on unknown substances.

Information continued on reverse. . .

Forensic Science continued. . .

In Addition. . .

- The program director, a practicing forensic anthropologist and a member of the American Academy of Forensic Sciences since 1996, teaches four required or elective courses in the forensic science curriculum.
- Dr. Stubblefield's vision of a teaching laboratory modeled after a functional crime laboratory was recently supported with a major National Science Foundation award.
- Dr. Igor Ovtchinnikov joined the program in 2009 as its forensic biologist in DNA analysis.
- Evidence analyst students are encouraged to seek internships throughout the United States. Since 2004 UND students have received internships in crime labs in North Dakota, Minnesota, Maine, Arizona, Nevada, and California. The program offers an intensive summer field school experience for students of forensic anthropology.
- All forensic science students are welcome to contact the Director with their concerns and there is a departmental email group which provides announcements, general advice, news of social events and outreach opportunities, and Forensic Science Club activities. Three academic advisors support the Forensic Science program. Juniors and seniors are advised by Dr. Stubblefield; the sophomore advisor is Dr. Richard Wise, and the freshman advisor is Dr. Frank Cuozzo.
- The Forensic Science Program is supported by 13 member departments that contribute courses that constitute a fundamental forensic science education, such as basic chemistry, biology, and criminal justice, and appropriate advanced level courses in the same areas. In addition the elective choices allow students to explore certain fields in greater depth, especially forensic anthropology, but also botany and entomology.

It's A Fact. . .

- The Human Identification Laboratory (forensic anthropology lab) accepts undergraduate student volunteers.
- Students can now receive up to 12 credits for forensic science internships.
- There is a great need for skilled employees due to improvements in crime lab facilities, increase in expectations for scientific analysis of evidence, and the DNA backlog; job availability depends frequently on the resources of state governments.
- About 100 students are enrolled in the program.
- Forensic Science major was first offered in 1999.
- The Forensic Science Club is active on campus and supports fundraising to send students to the annual meeting of the American Academy of Forensic Sciences.
- Typical salaries based on job descriptions for forensic chemists (with BS or MS) begin in the high \$40's; general lab technicians are around \$30K/year or higher.
- The Forensic Science Program teaches certain courses in an innovative teaching laboratory designed as a crime laboratory.

For more information. . .

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