UNIVERSITY of WISCONSIN
UWMILWAUKEE

College of
Letters & Science

Forensic Science
Certificate

What do Forensic Scientists Do?

Forensic scientists apply scientific knowledge and principles to the analysis of crime scene evidence. They use various problem-solving techniques, mathematical formulas, technological equipment and software to draw possible and probable conclusions about a crime based on the evidence. Some forensic scientists work in laboratories, while others complete their work on site, at the scene of the crime. Forensic scientists need to explain and justify their results in written reports and oral presentations to police, attorneys, judges and juries.

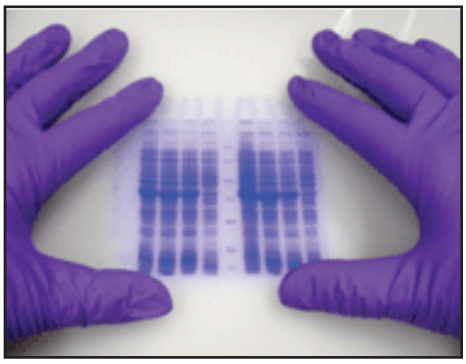
Some are generalists who are able to process different types of evidence. Others specialize in a specific type of evidence such as digital and multimedia evidence, skeletal remains, dental evidence, explosives, fingerprints, firearms, or DNA. Some specialties require advanced education or training.

While the typical portrayal of forensic scientists in television programs, such as "CSI" and "Law and Order," sometimes over-dramatizes contributions related to time frames and scientific techniques in solving crimes, the basic aspects of the work are more accurately portrayed than not.

Is Forensic Science Right for Me?

Students in forensic science have a strong interest in chemistry, biology or the physical sciences and wish to apply that knowledge to criminal investigation. They are naturally curious and exhibit a very high level of attention to detail. Successful forensic scientists must be patient and have the ability to follow specific steps in a consistent and precise manner to achieve reliable results.

Since they may be called upon to testify or provide written documentation, forensic scientists also must be excellent communicators, able to present their findings in a logical and clear format.



Career Opportunities

This certificate trains students in the analysis of evidence and DNA. Job opportunities may exist in local, regional and national crime labs, as well as paternity identification labs and archaeological sites. Other potential careers for students could include law enforcement or various government agencies such as the Bureau of Alcohol, Tobacco and Firearms; the FBI; or Health and Human Services. Depending on experience and additional training, forensic scientists can forge careers similar to those of forensic toxicologists and death investigators.

The median annual wage of forensic science technicians (a common entry level job title) was $51,570 in May 2010 according to the U.S. Bureau of Labor Statistics. Competition for jobs remains strong as interest has grown in recent years with the popularity of crime dramas on TV.

Certificate Requirements

Students will attend lecture along with presentations and laboratory courses that cover fundamental areas of forensic science and provide unique instruction on essential techniques.

This certificate requires a basic knowledge of chemistry and biology. Some of the required courses listed below have prerequisites so students should plan their course selection carefully.

Certificate programs are similar to minors. They are comprised of 15 to 26 credits in a specialized subject matter, and include coursework from different departments. Certificates can be combined with a degree program, or they are available as stand-alone options for individuals who already hold a bachelor's degree from any accredited college or university. Many certificates also will enroll individuals with a strong interest in the topic area but who do not have a degree.

Students must complete the following two courses prior to being accepted to the certificate program:

- Chemistry 100 – Chemical Science (4 credits)
- BioSci 100 – Survey of Zoology (3 credits)

Once in the program, students must complete:

- Introduction to Forensic Science (3 credits) (Cross-listed course which may be found in Anthropology, Chemistry, Clinical Lab Sciences or Criminal Justice)
- Criminalistics (Cross-listed course which may be found in Anthropology, Chemistry, Clinical Lab Sciences or Criminal Justice) (3 credits)
- Criminal Justice 110 – Introduction to Criminal Justice (3 credits)
- Criminal Justice 480 – Criminal Evidence and Investigation (3 credits)
- Anthropology 403 – The Human Skeleton (3 credits) OR Anthropology 404 – Heredity, Environment, and Human Populations (3 credits)
- Clinical Lab Sciences 610 – Criminal Pharmacology (3 credits) OR Health Care Administration 212 – Drugs Used and Abused (3 credits)
- BioSci 539 – Laboratory Techniques in Molecular Biology (4 credits) OR Chemistry 602 – General Biochemistry (3 credits) OR Clinical Lab Sciences 560/561 – Molecular Diagnostics/Molecular Diagnostics Laboratory (3 credits)

Students must complete at least one half of the required credits on the UWM campus. While completing the required courses, a minimum grade point average of 2.5 must be maintained.

The following courses are recommended but are not required to complete the certificate.

Other Recommended Courses

- Medico-Legal Death Investigation (3 credits) (Cross-listed course which may be found in Anthropology, Chemistry, Clinical Lab Sciences or Criminal Justice
- Internship in Forensic Toxicology (2-3 credits) (Cross-listed course which may be found in Anthropology, Chemistry, Clinical Lab Sciences or Criminal Justice)
- Internship in Forensic Science (3 credits) (Cross-listed course which may be found in Anthropology, Chemistry, Clinical Lab Sciences or Criminal Justice)
- Anthropology 405 – Forensic Anthropology (3 credits)
- Chemistry 524 – Intermediate Analytical Chemistry (3 to 5 credits)
- Clinical Lab Sciences 555 – Toxicology and Therapeutic Drug Monitoring (1 credit)
- Clinical Lab Sciences 620 – Forensic Pathology (2 credits)

Students considering forensic science also may want to explore the certificate in death investigation and

Related Certificates

the certificate in forensic toxicology prior to making a decision to pursue the forensic science certificate. Students in those areas explore medico-legal investigative techniques and toxic substances/poisons, respectively.

Updated 04/12

For More Information:
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