

Pre-Forensic Science

IMPORTANT: The required prerequisites for individual schools vary extensively. It is very important to review the requirements for schools you may choose to attend in the future. The field of Forensic science is very broad and your choices are many. There is no “cookie cutter” preparation plan for such a field of study; however this information may be of help.

The subsequent information was obtained from these websites:

<http://uts.cc.utexas.edu/~knauft/resources/forensics.html>

<http://www.aafs.org/>

<http://www.mfrc.ameslab.gov>

How Do I Become a Forensic Scientist?

You will need:

- (in some cases) a bachelor's degree (depending on the program entered into) — get one in science; some forensic sciences require advanced degrees; take chemistry, biology, math, English composition.
- good speaking skills — take public speaking, join the drama club, toastmasters, the debate team.
- good note-taking skills — you can't subscribe to a service or depend on Cliffs Notes in real life!
- the ability to write an understandable scientific report
- intellectual curiosity
- personal integrity

Education: Forensic science degrees can range from as little as a certificate to as high as a PHD. That all depends on the institution entered into. Check out the different programs across the nation at

http://aafs.org/default.asp?section_id=resources&page_id=colleges_and_universities

What major should I choose?

If you will be entering a program that requires a bachelors degree, (as would require many crime labs positions) you would most likely want a bachelor's degree in a physical science. Some universities offer a degree in Forensic Science. However, if the university you are attending does not offer such a program there are other majors you can consider. The major that you choose should reflect the forensic discipline in which you wish to work. For example, drug analysts should have a degree with a concentration in chemistry, while DNA analysts should have an emphasis on molecular biology. If you want to work in forensic DNA analysis, you must have coursework in molecular biology, statistics, genetics, and biochemistry. While Forensic Science degrees are not required, most provide a curriculum that includes ancillary courses that are helpful in the career. These include criminal law, courtroom procedures, and expert testimony courses.

What's A Forensic Scientist?

A forensic scientist is first a scientist. When he applies his scientific knowledge to assist juries, attorneys, and judges in understanding science, he is a forensic scientist.

Forensic scientists are thinkers, good with details, good with putting pieces of a puzzle together, and curious. Some scientists work in laboratories and some also go out to places where crimes are committed (crime scenes). Others teach in colleges and universities.

What Do Forensic Scientists Do?

The forensic sciences form a vital part of the entire justice and regulatory system. Some of the different divisions, or disciplines, of forensic science have become identified primarily with law enforcement — an image enhanced by television and movies. This is misleading because forensic scientists are involved in all aspects of criminal cases, and the results of their work may serve either the defense or the prosecution. The forensic scientist's goal is the evenhanded use of all available information to determine the *facts* and, subsequently, the *truth*.

The forensic scientist's role in the civil justice arena is expanding. Issues range from questions of the validity of a signature on a will, to a claim of product liability, to questions of whether a corporation is complying with environmental laws, and the protection of constitutionally guaranteed individual rights. Forensic science is a rewarding career where the love of science can be applied to the good of society, public health, and public safety.

Work Environment: Forensic scientists work in laboratories, at crime scenes, in offices, and in morgues. They may work for federal, state and local government, forensic laboratories, medical examiners offices, hospitals, universities, toxicology laboratories, police departments, medical examiner/coroner offices, or as independent forensic science consultants.

Kinds of Forensic Science: Disciplines within the American Academy of Forensic Sciences

The American Academy of Forensic Science, the largest forensic science organization in the world, is composed of over 5,000 scientists organized into ten sections representing the different areas of interest, activity, education, and expertise of individual members. Each of the following sections will be reviewed in alphabetical order: Criminalistics, Engineering Sciences, General, Jurisprudence, Odontology, Pathology/Biology, Physical Anthropology, Psychiatry & Behavioral Science, Questioned Documents, and Toxicology.

Income: Income in the forensic sciences varies greatly depending upon your degree, your actual job, where you work, and how many hours you work. You may never "get rich" but you will have a good income. You will be satisfied with your job, knowing you are contributing to justice — keeping the good guys on the street and helping put the bad guys in jail. Forensic scientists work different hours, depending upon what they do. Some work in forensic laboratories and work 40 hours a week, Monday through Friday. Others work out in the field on digs and may work different hours. Still others are "on call" and work after their regular shift and receive overtime or compensatory (comp) time. Essentially every branch of forensic science offers opportunities for personal growth, career advancement, and increasing financial compensation.

Salary: The majority of forensic science laboratories in the U.S. are publicly operated. The laboratories may be part of the federal, state, county, or local government. There are also a number of private laboratories that operate independently, are associated with universities, or are under contractual agreements with government agencies. The starting salary is dependent on the above factors and individuals should contact the specific laboratory that they are interested in. Salaries for Crime Laboratory analysts vary from region as well as position. The starting salary is generally around \$30,000. Analysts with many years of experience may make \$60,000-\$70,000.

How accurate are the television shows that portray forensic scientists?

Popular television shows such as CSI: Crime Scene Investigators, have increased the popularity of the forensic science field. However much work is done by creators to make the show as real as possible, the purpose is entertainment, and the depiction of forensic scientists can be far from accurate. Forensic scientists will not interrogate suspects and will not perform investigations. This is the job of police officers and investigators. Forensic crime scene analysts will arrive at the scene, process the scene, collect the evidence, and transport that evidence to the laboratory. Depending on the organization, crime scene analysts may continue with the case and process the evidence in the laboratory, or they may hand over the evidence to laboratory analysts. Due to backlogs and lack of personnel, it may take weeks for a piece of evidence to be processed. The job of a forensic scientist is often routine and repetitive; the majority of your time will be spent processing evidence and filling out paperwork, not running around town chasing down criminals. Another common misconception is that forensic scientists perform autopsies. Autopsies are performed by Medical Examiners who have gone to medical school and become doctors, in some areas of the country autopsies are also performed by coroners, who may not be doctors. Even though a forensic scientist does not perform autopsies, one must be prepared for being exposed to the gory nature of many crimes.