## FORENSIC SCIENCE
### What can I do with this major?

<table>
<thead>
<tr>
<th>AREAS</th>
<th>EMPLOYERS</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOXICOLOGY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ante-mortem Investigation (DUI)</td>
<td>Laboratories:</td>
<td>Complete an undergraduate degree in a science such as chemistry, clinical chemistry, medicinal chemistry, pharmacology or related field.</td>
</tr>
<tr>
<td>Post-mortem Investigation</td>
<td>Law enforcement/crime</td>
<td>Supplement degree with coursework in physics, computer science, statistics, math and forensic science.</td>
</tr>
<tr>
<td>Drug Testing (sweat, hair, saliva, blood, urine, etc.):</td>
<td>Hospital</td>
<td>Seek laboratory experience to develop knowledge of analytical chemistry techniques and instruments such as gas and liquid chromatography, mass spectrophotometry, UV-Visible spectrophotometry, etc.</td>
</tr>
<tr>
<td>Workplace</td>
<td>Medical examiner</td>
<td></td>
</tr>
<tr>
<td>Crime-related Investigation (homicide, sexual assault)</td>
<td>Coroner</td>
<td></td>
</tr>
<tr>
<td>Human Performance Monitoring</td>
<td>Forensic laboratories:</td>
<td></td>
</tr>
<tr>
<td>Animal Performance Monitoring</td>
<td>Medical examiner</td>
<td></td>
</tr>
<tr>
<td>Environmental Contamination Testing</td>
<td>Coroner</td>
<td></td>
</tr>
</tbody>
</table>

**CRIMINALISTICS**

- Crime Scene Reconstruction and Mapping
- Fingerprint Examination
- Firearm and Toolmark Identification
- Fire and Explosives Investigation
- Trace Evidence Collection
- DNA Collection and Testing
- Drug Analysis
- Photography
- Blood Spatter
- Wildlife Forensics

Forensic laboratories:
- Medical examiner
- Coroner
- Police department
- Sheriff
- Crime
- District attorney

Colleges and universities

Federal agencies:
- Drug Enforcement Agency
- Bureau of Alcohol, Tobacco and Firearms
- U.S. Department of Justice
- Federal Bureau of Investigation
- Central Intelligence Agency
- U.S. Secret Service
- Federal Emergency Management Agency
- U.S. Fish and Wildlife Service

Consulting firms

Complete a bachelor's degree in biology, molecular biology, chemistry, physics or a related science. Supplement major with math, English, public speaking and forensic science classes.

Choose courses with laboratory components to build instrumentation skills.

Seek experience through volunteer positions and/or internships in criminal justice settings.

Consider completing a forensic research project in partnership with a professor.

Join student chapters of professional organizations such as the Association for Crime Scene Reconstruction and the American Academy of Forensic Sciences.

Attain proficiency in writing and understanding scientific reports.

Pursue certification by the American Board of Criminalistics.

Earn a master's degree for advanced opportunities.

Many students specialize in forensic science at the graduate level. Some areas of specialization follow.

**AREAS EMPLOYERS STRATEGIES**

### FORENSIC SCIENCE

What can I do with this major?
### TOXICOLOGY Continued

Develop excellent report writing and public speaking skills, as forensic toxicologists may be required to describe complex processes to people without scientific training.

Join student chapters of professional organizations such as the American Academy of Forensic Sciences.

Plan to pursue a master’s degree or Ph.D. in forensic toxicology for increased opportunities.

Investigate certification options offered by The American Board of Forensic Toxicology or The Forensic Toxicology Certification Board.

### QUESTIONED DOCUMENTS

<table>
<thead>
<tr>
<th>Areas</th>
<th>Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examination/Analysis</td>
<td>Obtain a bachelor's degree in a science discipline such as biology or chemistry.</td>
</tr>
<tr>
<td>Comparison</td>
<td>Take courses in forensic document examination, forensic science, criminal justice or criminalistics.</td>
</tr>
<tr>
<td>Authentication</td>
<td>Cultivate attention to detail and laboratory techniques used for physical and chemical analyses.</td>
</tr>
<tr>
<td>Dating</td>
<td>Develop communication skills including public speaking to provide expert testimonials and written communication skills for compiling reports.</td>
</tr>
<tr>
<td>Alteration Detection</td>
<td>Become familiar with various types of paper, ink, toner, correction material, printing processes, etc.</td>
</tr>
<tr>
<td>Restoration</td>
<td>Maintain current knowledge of new technologies in the field through journals i.e. Journal of the American Society of Questioned Document Examiners and/or membership in professional organizations such as the American Academy of Forensic Sciences.</td>
</tr>
<tr>
<td></td>
<td>Plan to complete a two-year apprenticeship under the supervision of a recognized professional affiliated with the American Board of Forensic Document Examiners.</td>
</tr>
</tbody>
</table>
Forensic odontologists typically serve as general dentists and perform “on call” forensic examinations on contractual bases.

There is no specific major required to apply to dental school, though many students major in biological sciences. Research prerequisites for dental schools, and choose an undergraduate major that matches your interests and program requirements.

Develop attention to detail, fine motor skills and patience.

Earn superior undergraduate grades and secure strong faculty recommendations for admission to top-tier dental schools.

Prepare for the Dental Admissions Test (DAT), as DAT scores are a major consideration for acceptance into dental school.

Plan to shadow dentists and conduct informational interviews, particularly with those who perform forensic examinations.

Join student chapters of related organizations such as The American Society of Forensic Odontology and/or the American Academy of Forensic Sciences.

Expect to spend about eight years in school, four at the undergraduate level and four for dental school.

Pursue certification offered by the American Board of Forensic Odontology, which requires documentation of work in the field and examinations.
Forensic pathologists are medical doctors who have completed M.D. or D.O. degrees. There is no specific major required to apply to medical school. However, most medical schools require significant study in biology, chemistry, organic chemistry and physics. Research prerequisites for medical schools, and choose an undergraduate focus that meets program requirements.

- Supplement coursework with forensic science classes to increase knowledge of principles, practices and techniques relevant to investigations.
- Earn high grades and seek strong faculty recommendations for admission to medical school.
- Prepare appropriately to earn a high Medical College Admission Test (MCAT) score.
- Volunteer/shadow in healthcare environments such as hospitals, clinics or medical examiner offices.
- Participate in student chapters of health or forensic-related professional organizations such as the National Association of Medical Examiners; pursue leadership roles.
- Develop strong oral and written communication skills for speaking with non-medical professionals, including victim families and jurors, and for completing detailed reports.
- Demonstrate manual dexterity, fine motor and problem solving skills.
- Expect to spend 13-15 years in school, four at the undergraduate level, four for medical school and four to five years of residency. Candidates must complete an additional one to two year forensic pathology fellowship to sit for the American Board of Pathology forensic pathology examination/certification.
### Areas

**Physical/Forensic Anthropology**
- Human Skeletal Recovery
- Human Skeletal Identification
  - Age Estimation
  - Ancestry, Sex, Stature Determination
  - Cause/Time of Death Determination
- Animal Skeletal Identification
- Soil/Vegetation Analysis
- Crime Scene Investigation
- Facial Reproduction
- Body Decomposition
- Injury Interpretation
- Teaching

### Employers
- Medical examiners
- Law enforcement agencies
- Private labs
- Local, state and federal government
- U.S. Armed Forces
  - Armed Forces Institute of Pathology
  - Joint POW/MIA Accounting Command (JPAC)
- Museums
- Non-government organizations i.e. ad hoc tribunals
- Colleges and universities

### Strategies
- Obtain a bachelor’s degree in anthropology or a related field such as biology or sociology with a minor in anthropology.
- Complete additional coursework in forensic science, statistics, archaeological recovery, GIS, anatomy and skeletal biology.
- Demonstrate curiosity, analytical thinking skills and the ability to persevere through potentially lengthy assignments.
- Develop strong oral communication skills, and learn to write detailed scientific reports.
- Seek student-membership in professional organizations such as the American Academy of Forensic Sciences.
- Gain research experience by assisting professors or other professionals with forensic anthropology casework.
- Seek internships or volunteer opportunities in museums, and prepare to relocate to access the most employment opportunities.
- Maintain a high grade point average and establish strong recommendations for admission to top graduate programs in the field.
- Plan to earn at least a Master’s degree in anthropology to access most jobs in the field.
- Earn a Ph.D. in physical or forensic anthropology for university and college faculty positions and advanced research posts. Many forensic anthropologists teach and conduct research in addition to casework.
- Research certification offered through the American Board of Forensic Anthropology, which requires demonstrated experience and examinations.
<table>
<thead>
<tr>
<th>AREAS</th>
<th>EMPLOYERS</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FORENSIC PSYCHIATRY/PSYCHOLOGY</strong></td>
<td>Hospitals including prison and state facilities</td>
<td>Develop social perceptiveness, active listening, oral and written communication, critical thinking and problem solving skills for employment in psychiatry/psychology.</td>
</tr>
<tr>
<td>Criminal Responsibility Determination</td>
<td>Local, state and federal government</td>
<td>Earn exceptional grades, secure faculty recommendations and plan for the Medical College Admission Test (MCAT) or the Graduate Record Exam (GRE), respectively.</td>
</tr>
<tr>
<td>Competency Determination</td>
<td>Departments of correction</td>
<td>Seek volunteer, part-time, internship and/or research experience with professors or clinicians.</td>
</tr>
<tr>
<td>Risk Assessment</td>
<td>Federal Bureau of Investigation</td>
<td>Join related student chapters of professional organizations and stay current on research in the field.</td>
</tr>
<tr>
<td>Sex Offender</td>
<td>Colleges and universities</td>
<td></td>
</tr>
<tr>
<td>Violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involuntary Hospitalization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right to Refuse Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability Compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family/Domestic Consultation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Custody</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juvenile Delinquency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Fitness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adoption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Harassment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workplace Violence</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Students interested in forensic science should note that countless undergraduate majors, minors and concentrations may lead to work in this field. The coursework is primarily science-based. Students pursuing this path should plan to complete numerous classes in chemistry and biology.

Beware of inaccuracies of the forensic science field as portrayed on television. Research the field and requirements carefully in advance.

Most professional forensic science positions require a graduate degree. Research admissions requirements, take prerequisite courses and plan for admission exams.

Demonstrate curiosity, analytical thinking and attention to detail for precise documentation of procedures and findings.

Develop tolerance for working in extreme conditions at times and in proximity to injury and/or death.

Expect to work irregular, "on call" hours.

Gain relevant work experience through internships, part-time jobs or volunteer positions.

Join professional associations and community organizations to stay abreast of current issues in the field and to develop networking contacts.

Read scientific journals related to your area of interest.

Forensic scientists often deliver expert testimony in court proceedings. Learn to communicate and collaborate effectively with people in and outside of the criminal justice system including attorneys, judges and members of juries.

Plan to participate in ongoing training to maintain up-to-date knowledge of technologies/advances in your specialty area.

Research and maintain current certification for your specialty through accredited organizations.

Some law enforcement officers work in the forensic science field after receiving specialized training offered by agencies.

There is no specific path for becoming a profiler. One must have a proven track record as an investigator before being considered for specific training in this area.

Engineering science is a growing field within forensic science. Professionals earn engineering degrees and specialize in areas such as accident reconstruction, failure analysis, quality review, design review, etc. Findings are often applied to litigation and regulation.