



Scientific Forensic Technology

A team of lawyers and industrial engineers pore over the hard data in a board room. To the experts, the case is clear: the wrong hardness of steel was used to make a cotter pin. The pin held in place a larger rod, which in turn maintained tension on a pivoting hinge which kept a specific brand of horse trailer properly attached to the vehicle towing it. So when the cotter pin failed, trailers came loose on the road, endangering people and animals, and in one case, running an empty horse trailer through the front lobby of a glue factory.

Well, it wasn't funny at the time. The problem the lawyers face is clear: How to help a jury understand exactly what went wrong, mechanically, without confusing or boring them? What are they going to do, pass around a cotter pin? Wheel in an old chalk board? Drag in some guy in a lab coat to lecture for hours about tensile strengths and fracture points?

Not a chance. They've got you on retainer—a very expensive retainer. And thanks to your degree in Scientific Forensic Technology, your job is to create a computer animation showing the jury the exact sequence of events. When the jury is able to see your finished video showing the critical failure that an otherwise uninteresting little piece of metal contributed to the crash, you can rest assured that they will all agree with the engineers.

And the defense attorneys will have also learned an important lesson, too: Next time, they're hiring you.

Possible Job Titles:

Criminalist, Crime Scene Investigator, Accident Reconstructionist, Forensic Chemist, Document Examiner, Firearms Technician, Firearms/Toolmark Examiner Forensic Chemist, Forensic Photographic Specialist, Forensic Quality Assurance Coordinator, Forensic Scientist, Trace Evidence Examiner

Average Salary:

\$35,000-50,000/yr

Job Outlook:

There is a significant demand for program graduates for law firms (both civil and criminal), police criminal investigation units, businesses such as large insurance companies, and a variety of government agencies.



Contact Admissions:

1-888-DSU-9988 or admissions@dsu.edu

Contact Arts & Sciences:

1-605-256-5270 or artsandsciences@dsu.edu

Catalog Description:

The Scientific Forensic Technology major is designed to provide the skills and knowledge necessary to use computers and other kinds of modern technology to investigate, document, and visualize (especially with 3D modeling and animation) events that cause injury to humans or cause damage to property. The program is a composite major. It is, by design, a multidisciplinary approach to a focused area of forensic science, combining study in mathematics, chemistry, physics, computer graphics, and technical communication.

Professionals working in forensics have indicated that the major is consistent with and frequently goes beyond current national forensic standards and practices. Graduates will be well qualified for many positions with law firms (both civil and criminal), police criminal investigation units, businesses such as large insurance companies, and a variety of government agencies.

*System General Education Requirement 30**

Institutional Graduation Requirement 11

* Majors must take ART 121, MATH 123, CHEM 112, PHYS 211 and SOC 285 as part of the system-wide general education requirements. SPCM 215 is highly recommended.

Major Core

CHEM 114	General Chemistry II	4
CHEM 326	Organic Chemistry I	4
MATH 125	Calculus II	4
MATH 321	Differential Equations	3
PHSI 343	Introductory Thermodynamics	2
PHYS 213	University Physics II	4
SCTC 332	Instrumental Methods of Forensic Detection	4
SCTC 381	Forensic Probability and Statistics	3
SCTC 390	Seminar in Scientific Forensic Technology	3
SCTC 451	Mechanics for Forensics	4
SCTC 452	Forensic Analysis of Materials and Effects	3
SCTC 460	Medical Biochemistry for Forensics	3
SCTC 494	Internship in Forensics	1
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Supporting Coursework

ARTD 282	2-D Design on Computers I	3
ARTD 285	2-D Design on Computers II	3
ARTD 336	Digital Photography	3
ARTD 382	3-D Design on Computers I	3
ARTD 385	3-D Design on Computers II	3
ARTD 436	Digital Photography II	3
CIS 388	Computer Forensics Fundamentals	3
ENGL 379	Technical Communication	3
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Electives 21**

** Three of these credits will have been met upon completion of MATH 123, CHEM 112, PHYS 211 as part of the system-general education requirement.