

FORENSIC AND INVESTIGATIVE SCIENCES - BS, PRE-LAW EMPHASIS

This program teaches students how to use the life sciences, from DNA to ecology, to analyze crime scene evidence or solve mysteries in industrial, regulatory, or medical settings. The Pre-Law Emphasis operates at the crossroads of science and the legal profession, where strong research skills, analytical and problem-solving skills, and critical reading abilities are pivotal.

Forensic and Investigative Sciences (BS - Pre-Law Emphasis) is a major offered by the Department of Entomology. Molecular, organismal, environmental, and ecological sources of information are often analyzed and interpreted in industrial, regulatory, legal, medical and associated professions. Graduates will be competitive for employment opportunities in homeland security and investigative services at local, state and national levels. Graduates will also be well prepared for opportunities to enter post-graduate studies or law school.

Forensic and investigative sciences operate at the crossroads of science and the legal profession and provide opportunities for students to consider pre-law preparation. There are growing demands for attorneys with knowledge and understanding of science and research to address legal issues and cases where the interpretation of science and/or scientific data and analyses are pivotal. Law schools often seek candidates with diverse backgrounds and interests, and they look closely at curricula that stress analytical and problem-solving skills, critical reading abilities, writing skills, oral communication and listening abilities, general research skills, and task organization and management skills. The Forensic and Investigative Sciences program provides students with opportunities to build these essential skills and knowledge areas through a combination of required and elective courses.

Forensic science is a critical element of the criminal justice system. Forensic scientists examine and analyze evidence from crime scenes and elsewhere to develop objective findings that can assist in the investigation and prosecution of perpetrators of crime or absolve an innocent person from suspicion.

The forensic scientist's skill is to use all the information available to determine facts. Issues of law and/or fact that may require forensic science expertise range from questions of the validity of a signature on a will, to a claim of products liability, to questions of whether a corporation is complying with environmental laws. The work of the forensic scientist reduces the number of cases entering the overloaded court system by assisting the decision-makers before a case reaches the court. This decision is based on scientific investigation, not circumstantial evidence or the sometimes-unreliable testimony of witnesses.

Many forensic scientists work for universities, police agencies (state, city, and local agencies), federal agencies, and criminal investigation arms of the military forces and their support laboratories. Others work for coroners, medical examiners, hospitals, and district attorney's offices.

As crime continues to evolve with technology and society, forensic scientists will be challenged to respond by adapting established technologies and, where necessary, developing new ones. These emerging forensic science disciplines will continue to be of vital importance to the courts and to society in general.

<https://entomology.tamu.edu/b-s-forensic-investigative-sciences/>

Program Requirements

First Year

Fall		Semester Credit Hours
BIOL 111	Introductory Biology I	4
FIVS 101 or AGLS 101	Introduction to Academic Success in Forensic and Investigative Sciences or Modern Agricultural Systems and Renewable Natural Resources	1
FIVS 205	Introduction to Forensic and Investigative Sciences	3
MATH 140	Mathematics for Business and Social Sciences ¹	3
Communication (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3

Semester Credit Hours

14

Spring

BIOL 112	Introductory Biology II	4
FIVS 102	Continuing Academic Success in Forensic and Investigative Sciences	1
MATH 142	Business Calculus ²	3
American history (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)		3
Communication (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3

Semester Credit Hours

14

Second Year

Fall

CHEM 119	Fundamentals of Chemistry I	4
FIVS 210	Forensic Photography	3
FIVS 215	Forensic Microscopy	3
Government/Political science (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)		3
Language, philosophy and culture (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture)		3

Semester Credit Hours

16

Spring

CHEM 222	Elements of Organic and Biological Chemistry ³	3
FIVS 220	Impression Evidence	3
American history (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)		3
Government/Political science (https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)		3

Social and behavioral sciences (<https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences>) 3

Semester Credit Hours 15

Third Year

Fall

FIVS 282 Occupational and Professional Development 2

FIVS 308 Forensic Implications of Inheritance ⁴ 4

STAT 303 Statistical Methods ⁵ 3

Directed elective ⁶ 3

Creative arts (<https://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts>) 3

Semester Credit Hours 15

Spring

BICH 303 Elements of Biological Chemistry 3

FIVS 422 Crime Scene Investigation ⁴ 3

FIVS 481 Seminar 1

Directed elective ⁶ 3

Directed elective ⁶ 3

Select one of the following: 2-3

FIVS 401/
SCSC 401 Forensic Soil Science

FIVS 405/
CYBR 405 Applied Digital Forensics and Incident Response

FIVS 420 Controlled Substances

FIVS 431/
ENTO 431 The Science of Forensic Entomology

Semester Credit Hours 15

Fourth Year

Fall

FIVS 484 Internship 2
or FIVS 491 or Research

Directed elective ⁶ 3

Directed elective ⁶ 3

Directed elective ⁶ 3

General elective 4-5

Semester Credit Hours 16

Spring

Directed elective ⁶ 3

Directed elective ⁶ 3

Directed elective ⁶ 3

Directed elective ⁶ 6

Semester Credit Hours 15

Total Semester Credit Hours 120

¹ MATH 150 or MATH 152 will be accepted in lieu of MATH 140.

² PHIL 240 or MATH 151 will be accepted in lieu of MATH 142.

³ CHEM 227 or CHEM 257 will be accepted in lieu of CHEM 222.

⁴ This course fulfills a writing requirement. See Requirement for a Baccalaureate Degree (<https://catalog.tamu.edu/undergraduate/general-information/degree-information/#requirementsforabaccalaureatedegree> section).

⁵ STAT 302 will be accepted in lieu of STAT 303.

⁶ See below the approved list of directed electives.

AGEC 105, AGECE 315, AGECE 344, AGECE 350, AGECE 429; ECON 202, ECON 203, ECON 323, ECON 420; MGMT 209; PBSI 100-499 (<https://catalog.tamu.edu/undergraduate/course-descriptions/pbsi/>); POLS 352, POLS 353, POLS 355; RWFM 308, RWFM 436; URPN 361, URPN 401, URPN 450; PHLT 300-499 (<https://catalog.tamu.edu/undergraduate/course-descriptions/phlt/>); PHYS 201, PHYS 202; FIVS 401/SCSC 401, FIVS 405/CYBR 405, FIVS 420, FIVS 431/ENTO 431, FIVS 432/ENTO 432; CHEM 120, CHEM 237, CHEM 228, CHEM 238; PHIL 100-499 (<https://catalog.tamu.edu/undergraduate/course-descriptions/phil/>); COMM 203, COMM 243, COMM 305, COMM 325, COMM 443; SOCI 200-499 (<https://catalog.tamu.edu/undergraduate/course-descriptions/soci/>); ALED 202, ALED 301, ALED 340, ALED 424, ALED 440; FIVS 289, FIVS 489; GENE 420/BICH 420; HIST 447; RWFM 470; ENTO 200-499 (<https://catalog.tamu.edu/undergraduate/course-descriptions/ento/>).

The Forensic and Investigative Sciences program requires students to earn a grade of C or better in all courses within the program curriculum.

University Graduation Requirements:

- Foreign Language (two years of the same language in high school or one year/ two semester sequence in college)
- Writing Intensive courses (two courses designated W in major or one W and one C course in major)
- International and Cultural Diversity (<https://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) courses (three credit hours)
- Cultural Discourse (<https://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) course (three credit hours)