

Forensic Biology

The Forensic Biology major helps prepare students for careers in the criminal justice system, the FBI, the SBI, and for work with humanitarian agencies investigating human rights abuse. The program not only instructs students in the technical aspects of crime scene investigation, but it also explores the scientific basis for CSI procedures. In addition, students interested in law, journalism, and creative writing can double-major and acquire specialized knowledge to complete their field of specialization.

The Degree Program

The Bachelor of Arts degree is offered in Forensic Biology.

Related Major Skills

- examine evidence for blood and other biological fluids
- conduct DNA testing to determine source of biological fluids
- use Polymerase Chain Reaction (PCR) to amplify DNA for identity testing
- FBI CODIS profiling of DNA
- chemical development of latent fingerprints
- drug analysis and identification
- hair and fiber analysis
- laboratory report preparation
- techniques in forensic excavation of skeletal remains
- evidence collection documentation
- standards for certification as an expert witness

Required Courses

The major consists of a minimum of 8 courses (32 credit hours) as specified below:

BIOL 111: Integrative Biology: Molecules and Cells
BIOL 115: General Botany
BIOL 245: Introduction to Forensic Science
BIOL 246: Forensic Chemistry
BIOL 313: Molecular Cell Biology
BIOL 341: Human Anatomy and Physiology I
BIOL 342: Human Anatomy and Physiology II
BIOL 349: Forensic Anthropology

Special Features

Our well-equipped laboratories with computer work stations and courses make extensive use of computer technology in all areas of forensic investigation, for example, FORDISC for skeletal reconstruction and crime scene mapping software. Courses are very "hands-on," with at least 50% of the coursework consisting of learning laboratory techniques and procedures. Students work with equipment that is currently utilized in forensics laboratories, for example, the Gas Chromatograph-Mass Spectrograph and the Thermal Cycler for amplification of DNA using the polymerase chain reaction. Forensics students in the Forensic Chemistry course develop DNA profiles on the Genetic Analyzer using the same technology as federal and state forensic laboratories.

Internship and Independent Study Opportunities

Many Forensic Biology majors choose to seek an internship prior to graduation to gain practical experience in their area of specialization and a better understanding of their proposed career field. Forensic Biology majors have sought and obtained internships with the Greensboro Police Department; the Guilford County, Forsyth County, Alamance County, and Gaston County Sheriffs' Departments, and with public and private laboratories.

The independent study option provides students with an opportunity to pursue in-depth research on a topic of their choice. Students work closely with a faculty member to plan and conduct their research. There are several laboratories in the department reserved exclusively for students engaged in independent research.

Possible Career Choices

Look at what some of our graduates are doing:

crime scene investigator	autopsy technician
crime lab technician	corrections officer
forensic nurse	police officer
forensic researcher	human rights abuses investigator
criminalist	crime novel writer
forensic scientist	journalist
assistant toxicologist	law school
crime lab serologist	medical pathologist (with double-major in health sciences)
DNA profiling technician	
DNA analyst	

Faculty

Melanie Lee-Brown, Associate Professor and Chair; mleebro@guilford.edu

Frank P. Keegan, Raymond Binford Professor of Biology; Director, the Forensic Institute of Guilford College; fkeegan@guilford.edu

Lynn J. Moseley, Charles A. Dana Professor of Biology

Charles G. Smith, Professor

Bryan W. Brendley, Assistant Professor

Michele Malotky, Assistant Professor

Thomas R. Tucker, Assistant Professor

Why Enroll in Guilford College's Adult Degree Programs?

- least complicated and lowest cost application
- most convenient location on W. Friendly Ave. with easy access from I-40, Bryan Boulevard, and Rtes. 29 & 68
- most convenient schedule (full-time, 2 nights a week or Saturdays only)
- lowest total cost full-time adult degree programs
- transfer credits never expire
- evening-only programs
- unique adult-specific services and personal attention
- dedicated, highly qualified faculty

Degree Programs Offered

Accounting ¹	Environmental Studies ³	Philosophy
African American Studies ³	Exercise and Sports Studies	Peace and Conflict Studies ³
Art	Forensic Accounting ¹	Physics
Biology	Forensic Biology ¹	Political Science ¹
Business Management ¹	French	Psychology ¹
Chemistry	Geology and Earth Sciences	Religious Studies
Community and Justice Studies ¹	German	Sociology/Anthropology
Computer Information Systems ¹	German Studies	Spanish
Computing and Information Technology ¹	Health Sciences ³	Sport Management
Criminal Justice ¹	History ¹	Sports Medicine
Economics	Integrative Studies	Theatre Studies
Education Studies ^{2, 3}	International Studies	Women's Studies ³
English	Mathematics	
	Music	

¹ Programs can be completed entirely at night.

² Internship/student teaching must be completed in the daytime.

³ Requires a second disciplinary major.