

Forensic Biology

Guilford's Department of Biology offers a wide variety of curriculum options for students. The major in forensic biology provides students with a solid foundation in the biological sciences through core introductory courses a focused and coherent study of the techniques used to analyze evidence found at the crime scene in the five upper-level courses. Guilford's forensics program not only instructs students in the technical aspects of crime scene investigation, but also explores the scientific basis for CSI procedures. The major will assist students interested in pursuing careers in the criminal justice system, the FBI or the SBI, as well as work with humanitarian agencies investigating human rights abuses. Students interested in law, journalism, and creative writing can double-major and acquire specialized knowledge to complete their field of specialization.

Why Guilford College?

Consistently rated nationally by *The Princeton Review* as well as being one of the 40 colleges in *Colleges that Change Lives* by Loren Pope, Guilford College inspires each student to achieve excellence through an engaging community, rooted in Quaker values, which nurtures creativity and social responsibility.

What can a Guilford education offer you?

- An urban setting near other colleges & universities with an area student population of over 27,000 students
- A consortium agreement with University of North Carolina at Greensboro, Greensboro College, Bennett College, North Carolina A&T State University, Elon University and High Point University provides students with access to courses free of charge
- A college mission statement & core values based on, and consistent with, Quaker testimonies. Guilford's core values are: Community, Diversity, Equality, Excellence, Integrity, Justice & Stewardship.
- A challenging academic program which emphasizes not only academic tracks and the learning process, but also the interconnection between curricular and co-curricular pursuits
- A diverse student population, providing a stimulating peer environment
- Excellent study abroad programs in China, England, France, Germany, Ghana, Ireland, Italy, Japan, Mexico, Netherlands, Scotland, Spain, and Wales

The academic program in Forensic Biology

The Bachelor of Arts degree is offered in Forensic Biology.

A minor is offered in Forensic Science.

Required courses for the Forensic Biology major

The major in forensic biology consists of 8 four credit courses (32 credit hours) including:

- 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 occupy the first floor of the modern Frank Family Science Center.
- Laboratories have numerous 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, for example, presumptive color test for the identification of blood, seminal stains, drugs and explosive residues.
- 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.

Internships

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 majors have sought and obtained internships with the Greensboro Police Department; the Guilford County, Forsyth County, Alamance County, and Gaston County Sheriffs' Departments; Maryland State Police--Forensic Science Division. Students interested in forensic laboratory work have participated in internships with public and private laboratories. A number of majors have obtained internships over the summer months in their hometowns, including in New York City, Boston, and Baltimore.

Independent Study

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. One laboratory in the department is reserved exclusively for students engaged in independent research.

Faculty

Melanie Lee-Brown, Assistant Professor, 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

**For additional information about Forensic Biology at Guilford College visit
www.guilford.edu/forensics**

