

B.S. in Forensic Biology

The Bachelor of Science in Forensic Biology, housed in the Department of Biology and Chemistry within the College of Arts and Sciences, provides students with a foundation in biology, chemistry, and law. Students complete the necessary coursework to become certified molecular biologists or chemists through the American Board of Criminalistics (ABC) and accrue all prerequisites for further study in medical, dental, graduate, or law programs.

At the **Prescott Campus**, students work in four state-of-the-art laboratories equipped with professional tools and guided by experienced forensics experts. In the Forensic Crime Scene Investigation Lab, they collect evidence and investigate crime scenes. In the Forensic Biology Lab, students conduct tissue sampling and DNA analysis. Fieldwork opportunities are also available with the Yavapai County Sheriff's Office, assisting investigations through the Volunteers in Protection (VIP) program.

Prescott's small campus atmosphere creates an ideal learning environment for close interaction with faculty and opportunities to complete undergraduate research in specialized areas. Students are encouraged to travel to the annual national American Academy of Forensic Sciences (AAFS) conference with faculty, providing valuable networking opportunities that can lead to internships and job offers.

Program-Level Student Learning Outcomes

Students will:

- Apply scientific methods to analyze forensic evidence.
- Achieve functional scientific communication skills.
- Apply appropriate concepts to investigating crime scenes, collecting, and preserving forensic evidence.
- Assess the ethical and legal responsibilities of forensic analysts.
- Implement laboratory skills to analyze forensic evidence.
- Present forensic analyses of evidence in court as scientific experts.

Prescott Program Requirements

General Education Requirements	39
Core Requirements	55
Program Support Courses	11
Professional Development Courses	3
Specified Electives	5-6
Open Electives	7
Total Credits	121

Program Details

The Bachelor of Science in Forensic Biology program requires successful completion of a minimum of 121 credit hours. The program may be completed in eight semesters, or four years, assuming appropriate background and full-time enrollment. Students pursuing this undergraduate degree must earn a minimum cumulative grade point average (CGPA) of 2.00 for all work completed at the University. Students are required to complete a forensic biology-focused internship, cooperative education experience, capstone project, or research experience as part of the degree requirements. The courses necessary to earn this degree are listed below.

Students should be aware that many courses have prerequisites and/or corequisites. Students must earn a grade of C or better in biology and chemistry courses before progressing to subsequent courses. Students are responsible for ensuring that all prerequisite and degree requirements are met prior to enrollment in advanced coursework.

General Education

Communication	9
COMM 122	English Composition
Humanities - Lower Level	3
Social Sciences - Lower Level	3
Humanities/Social Sciences - Lower or Upper Level	3
SOSC 200	Introduction to the U.S. Legal System
Humanities/Social Sciences - Upper Level	3
HUMN 330	Values and Ethics
Computer Science/Information Technology	3
Mathematics	7
MATH 241	Calculus and Analytical Geometry I
STAT 222	Business Statistics
Physical/Life Sciences	8
PHYS 113	Introductory Physics I
PHYS 113L	Introductory Physics I Laboratory
PHYS 117	Introductory Physics II
PHYS 117L	Introductory Physics II Laboratory
Total Credits	39

Core Requirements

BIOL 120	Foundations of Biology I	3
BIOL 120L	Foundations of Biology I Laboratory	1
BIOL 121	Foundations of Biology II	3
BIOL 121L	Foundations of Biology II Laboratory	1
BIOL 215	Genetics	3
BIOL 215L	Genetics Laboratory	1
BIOL 216	Microbiology	3
BIOL 216L	Microbiology Laboratory	1
BIOL 302	Instrumental Analysis and Trace Evidence	3
BIOL 302L	Instrumental Analysis and Trace Evidence Laboratory	1
BIOL 304	Critical Reading and Scientific Communication	1
or CHEM 304	Critical Reading and Scientific Communication	
BIOL 304	Critical Reading and Scientific Communication	1
or CHEM 304	Critical Reading and Scientific Communication	
BIOL 304	Critical Reading and Scientific Communication	1
or CHEM 304	Critical Reading and Scientific Communication	
BIOL 305	Human Anatomy and Physiology I	3
BIOL 305L	Human Anatomy and Physiology Laboratory	1
BIOL 405	Molecular and Cell Biology	3
BIOL 405L	Molecular and Cell Biology Laboratory	1
BIOL 406	Forensic DNA Analysis	3
BIOL 406L	Forensic DNA Analysis Laboratory	1
CHEM 110	General Chemistry I	3
CHEM 110L	General Chemistry I Laboratory	1
CHEM 111	General Chemistry II	3
CHEM 111L	General Chemistry II Laboratory	1
CHEM 210	Organic Chemistry I	3
CHEM 210L	Organic Chemistry I Laboratory	1
CHEM 211	Organic Chemistry II	3
CHEM 211L	Organic Chemistry II Laboratory	1
CHEM 310	Biochemistry	3
CHEM 310L	Biochemistry Laboratory	1
Total Credits		55

Program Support Courses

FRSC 220	Investigative Methodology and Forensic Science	3
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FRSC 220L	Investigative Methodology and Forensic Science Laboratory	1
SOSC 308	Courts and Criminal Justice	3
SOSC 411	Procedural Laws and Evidence	3
UNIV 101	College Success	1
Total Credits		11

Professional Development Courses

COIN 396	Co-Operative Education	3
or BIOL 310	Research	
or BIOL 490	Senior Seminar	
Total Credits		3

Specified Electives

Choose Six Credits from the Following List		6
BIOL 306	Human Anatomy and Physiology II	
BIOL 306L	Human Anatomy and Physiology II Laboratory	
BIOL 444	Immunology	
BIOL 445	Principles of Human Pathophysiology	
CHEM 320	Quantitative Analytical Chemistry	
CHEM 320L	Quantitative Analytical Chemistry Laboratory	
CHEM 340	Toxicology	
CHEM 340L	Toxicology Laboratory	
Total Credits		6

Open Electives

Upper Level Open Electives	3
Lower or Upper Level Open Electives	4
Total Credits	7

Suggested Plan of Study

Year One

Requirements	Credits
BIOL 120 - Foundations of Biology I and BIOL 120L - Foundations of Biology I Laboratory	4
CHEM 110 - General Chemistry I and CHEM 110L - General Chemistry I Laboratory	4
COMM 122 - English Composition	3
MATH 241 - Calculus and Analytical Geometry I	4
UNIV 101 - College Success	1
Semester Hours	16

Requirements	Credits
BIOL 121 - Foundations of Biology II and BIOL 121L - Foundations of Biology II Laboratory	4
CHEM 111 - General Chemistry II and CHEM 111L - General Chemistry II Laboratory	4
Humanities - Lower Level Elective	3
Social Sciences - Lower Level Elective	3
Semester Hours	14

Total Credits

Total Hours for All Requirements: 30

Year Two

Requirements	Credits
BIOL 215 - Genetics and BIOL 215L - Genetics Laboratory	4
CHEM 210 - Organic Chemistry I and CHEM 210L - Organic Chemistry I Laboratory	4
SOSC 200 - Introduction to the U.S. Legal System	3
Communication	3
Semester Hours	14

Requirements	Credits
BIOL 216 - Microbiology and BIOL 216L - Microbiology Laboratory	4
CHEM 211 - Organic Chemistry II and CHEM 211L - Organic Chemistry II Laboratory	4
BIOL 304 - Critical Reading and Scientific Communication or CHEM 304 - Critical Reading and Scientific Communication	1
FRSC 220 - Investigative Methodology and Forensic Science	3
FRSC 220L - Investigative Methodology and Forensic Science Laboratory	1
Semester Hours	13

Total Credits

Total Hours for All Requirements: 27

Year Three

Requirements	Credits
BIOL 302 - Instrumental Analysis and Trace Evidence and BIOL 302L - Instrumental Analysis and Trace Evidence Laboratory	4
BIOL 305 - Human Anatomy and Physiology I and BIOL 305L - Human Anatomy and Physiology Laboratory	4
PHYS 113 - Introductory Physics I and PHYS 113L - Introductory Physics I Laboratory	4
Computer Science / Information Technology	3
Semester Hours	15

Requirements	Credits
CHEM 310 - Biochemistry and CHEM 310L - Biochemistry Laboratory	4
BIOL 304 - Critical Reading and Scientific Communication or CHEM 304 - Critical Reading and Scientific Communication	1
STAT 222 - Business Statistics	3
PHYS 117 - Introductory Physics II and PHYS 117L - Introductory Physics II Laboratory	4
Communication	3
Semester Hours	15

Requirements	Credits
BIOL 490 - Senior Seminar, COIN	3
396 - Co-Operative Education, or BIOL 310 - Research	
Semester Hours	3

Total Credits

Total Hours for All Requirements: 33

Year Four

Requirements	Credits
BIOL 405 - Molecular and Cell Biology and BIOL 405L - Molecular and Cell Biology Laboratory	4
Specified Elective	3
Open Elective	4
SOSC 308 - Courts and Criminal Justice	3
Semester Hours	14

Requirements	Credits
BIOL 406 - Forensic DNA Analysis and BIOL 406L - Forensic DNA Analysis Laboratory	4
BIOL 304 - Critical Reading and Scientific Communication or CHEM 304 - Critical Reading and Scientific Communication	1
HUMN 330 - Values and Ethics	3
SOSC 411 - Procedural Laws and Evidence	3
Specified Elective	3
Open Elective - Upper Level	3
Semester Hours	17

Total Credits

Total Hours for All Requirements: 31