

Forensic Science - Forensic Laboratory Emphasis, B.S.

The Forensic Laboratory Emphasis within the BS in Forensic Science provides students with a comprehensive science-based undergraduate education, which enables students to enter into a forensic science career. This emphasis provides the necessary technical and theoretical knowledge, skills, and abilities of modern forensic techniques. Students employ the theoretical and practical principles of chemistry, biology, physics, and mathematics in order to perform forensic science work commonly conducted within a crime laboratory. Science-based study and application of these principles expose students to a stimulating academic environment conducive to scholarly inquiry. Students gain the knowledge and ability for research-based projects and for potential improvement of the forensic community. Throughout this program, students utilize effective written and oral communication skills required of forensic experts, as well as demonstrate work ethic, professional demeanor, reliability, and proper interpersonal skills.

Matriculation Requirements

Admission to the BS program includes the following requirements:

1. Completion of all general education courses.
2. Completion of all lower division CJ courses with a B- grade or higher.
3. Completion of MATH 1080 (or MATH 1050 and MATH 1060), BIOL 1610, BIOL 1615, CHEM 1210, CHEM 1215, CHEM 1220, 1225, PHYS 2010, PHYS 2015 with a B- grade or higher.
4. Overall GPA of 2.7 or higher.
5. Application for admission to BS Forensic Science program.
6. Two academic letters of recommendation.

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		125
Forensic Science Requirements		74
		Credits
Complete the requirements		74
Emphasis Requirements		51
		Credits
MATH 1210	Calculus I QL (Requires MATH 1080 or MATH 1050 & MATH1060) ²	4
STAT 2040	Principles of Statistics QL	4
BIOL 1620	College Biology II	3
BIOL 1625	College Biology II Laboratory	1
BIOL 3500	Genetics	3
BIOL 3600	Biological Chemistry	3
BIOL 3605	Biological Chemistry Lab	1
CHEM 2310	Organic Chemistry I	4
CHEM 2315	Organic Chemistry I Laboratory	1
CHEM 2320	Organic Chemistry II	4
CHEM 2325	Organic Chemistry II Laboratory	1
CHEM 3000	Analytical Chemistry	2
or BIOL 3550	Molecular Biology	
CHEM 3005	Analytical Chemistry Laboratory	2
or BIOL 3555	Experiments in Molecular Biology	
CHEM 4000	Instrumental Analysis WE	2
or BIOL 4500	Principles of Evolution WE	
CHEM 4005	Instrumental Analysis Laboratory	2
or BIOL 3515	Advanced Genetics Laboratory	
FSCI 3540	Forensic Trace Analysis	3
FSCI 3550	Forensic Trace Analysis II	3
FSCI 443R	Research in Forensic Laboratory Sciences	3

or FSCI 481R	Forensic Science Internship	
Emphasis Electives		
Complete 5 credits from the following		5
FSCI 3300	Forensic Photography (3)	
FSCI 3500	Footwear and Tire Mark Evidence and Examination (3)	
FSCI 3600	Forensic Anthropology I (3)	
FSCI 3720	Fingerprint Examination (3)	
FSCI 3780	Bloodstain Pattern Analysis (3)	
FSCI 3830	Complex Scene Analysis and Reconstruction WE (3)	
FSCI 3850	Marijuana Identification Certificate (3)	
FSCI 4000	Firearms Examination (3)	
FSCI 4050	Forensic Approaches to Cold Case Investigations (3)	
FSCI 4100	Forensic Pathology (3)	
FSCI 4200	Medicolegal Death Investigations (3)	
FSCI 4300	Forensic Genealogy (3)	
FSCI 4320	Genealogy Research Methods and Standards (3)	
FSCI 4350	Forensic Genealogy Seminar (3)	
FSCI 475R	Current Topics in Forensic Science (3)	
CJ 470G	Comparative Criminal Justice Systems GI (3)	
ENGL 3300	Collaborative Communication for Technology Professions (3)	
Any Upper Division CJ Course or Approved Elective		

Core Requirements

Code	Title	Credit Hours
Total Credit Hours		74
General Education Requirements		40 Credits
ENGL 1010 or ENGL 1005	Introduction to Academic Writing CC Literacies and Composition Across Contexts CC	3
ENGL 2010	Intermediate Academic Writing CC	3
Complete one of the following:		
MATH 1080	Precalculus QL (MATH 1050 and MATH 1060 will also fulfill this requirement) ¹	5
Complete one of the following:		3
HIST 1700	American Civilization AS (3)	
HIST 1740	US Economic History AS (3)	
HIST 2700 & HIST 2710	US History to 1877 AS and US History since 1877 AS (6)	
POLS 1000	American Heritage AS (3)	
POLS 1100	American National Government AS (3)	
PHIL 205G	Ethics and Values IH GI	3
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE Fitness for Life TE	2
Distribution Courses:		
BIOL 1610	College Biology I BB	4
CHEM 1210	Principles of Chemistry I PP	4
PHYS 2010	College Physics I PP	4
CJ 1010	Introduction to Criminal Justice SS	3
Humanities Distribution ¹		3
Fine Arts Distribution ²		3
Discipline Core Requirements		34 Credits

Forensic Science Foundational Courses:

CJ 1330	Criminal Law	3
CJ 1350	Introduction to Forensic Science	3
CJ 2350	Laws of Evidence	3
BIOL 1615	College Biology I Laboratory	1
CHEM 1215	Principles of Chemistry I Laboratory	1
CHEM 1220	Principles of Chemistry II PP	4
CHEM 1225	Principles of Chemistry II Laboratory	1
PHYS 2015	College Physics I Lab	1
PHYS 2020	College Physics II PP	4
PHYS 2025	College Physics II Lab	1
FSCI 3400	Criminalistics	3
FSCI 3820	Crime Scene Investigation Techniques I WE	3
FSCI 3860	Forensic Microscopy	3
FSCI 3880	Forensic Experts/Professional Practices and the Legal System	3

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COMM 1020 Public Speaking HH Recommended

2

ART 1050 Photography I FF Recommended

Graduation Requirements

1. Completion of a minimum of 125 or more semester credits; 40 credits of which, must be upper division.
2. A minimum grade of B- or higher is required in all Math, Chemistry, Biology, Physics and FSCI Courses with an overall GPA of 3.0 to graduate.
3. Residency hours: minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of two Writing Enriched courses.

Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (<http://www.uvu.edu/wolverinetrack/>).

First Year

Semester 1		Credit Hours
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC or Literacies and Composition Across Contexts CC	3
American Institutions Course		3
CJ 1010	Introduction to Criminal Justice SS	3
CJ 1350	Introduction to Forensic Science	3
COMM 1020	Public Speaking HH (Recommended)	3
Credit Hours		15
Semester 2		Credit Hours
ENGL 2010	Intermediate Academic Writing CC	3
MATH 1080	Precalculus QL	5
CJ 1330	Criminal Law	3
BIOL 1610	College Biology I BB	4
BIOL 1615	College Biology I Laboratory	1
Credit Hours		16
Second Year		Credit Hours
Semester 3		Credit Hours
ART 1050	Photography I FF (Recommended)	3
HLTH 1100	Personal Health and Wellness TE	2
CHEM 1210	Principles of Chemistry I PP	4
CHEM 1215	Principles of Chemistry I Laboratory	1

MATH 1210	Calculus I QL	4
Credit Hours		14
Semester 4		
CJ 2350	Laws of Evidence	3
CHEM 1220	Principles of Chemistry II PP	4
CHEM 1225	Principles of Chemistry II Laboratory	1
PHYS 2010	College Physics I PP	4
PHYS 2015	College Physics I Lab	1
PHIL 205G	Ethics and Values IH GI	3
Credit Hours		16
Third Year		
Semester 5		
BIOL 1620	College Biology II	3
BIOL 1625	College Biology II Laboratory	1
CHEM 2310	Organic Chemistry I	4
CHEM 2315	Organic Chemistry I Laboratory	1
FSCI 3400	Criminalistics	3
Credit Hours		12
Semester 6		
CHEM 2320	Organic Chemistry II	4
CHEM 2325	Organic Chemistry II Laboratory	1
BIOL 3600	Biological Chemistry	3
BIOL 3605	Biological Chemistry Lab	1
PHYS 2020	College Physics II PP	4
PHYS 2025	College Physics II Lab	1
Credit Hours		14
Semester 7		
STAT 2040	Principles of Statistics QL	4
FSCI 3820	Crime Scene Investigation Techniques I WE	3
FSCI 3860	Forensic Microscopy	3
FSCI Elective		3
Credit Hours		13
Fourth Year		
Semester 8		
FSCI 3540	Forensic Trace Analysis	3
CHEM 3000 or BIOL 3550	Analytical Chemistry or Molecular Biology	2
CHEM 3005 or BIOL 3555	Analytical Chemistry Laboratory or Experiments in Molecular Biology	2
BIOL 3500	Genetics	3
FSCI Elective		2
Credit Hours		12
Semester 9		
FSCI 3550	Forensic Trace Analysis II	3
FSCI 3880	Forensic Experts/Professional Practices and the Legal System	3
FSCI 443R or FSCI 481R	Research in Forensic Laboratory Sciences or Forensic Science Internship	3
CHEM 4000 or BIOL 4500	Instrumental Analysis WE or Principles of Evolution WE	2
CHEM 4005 or BIOL 3515	Instrumental Analysis Laboratory or Advanced Genetics Laboratory	2
Credit Hours		13
Total Credit Hours		125

Program Learning Outcomes

1. Demonstrate theoretical knowledge, skills, and abilities of modern forensic techniques.
2. Analyze principles of biology, chemistry, physics, and mathematics as they pertain to the forensic science applications commonly conducted within a crime laboratory.
3. Evaluate evidence commonly found at crime scenes.
4. Scientifically analyze evidence used in criminal investigations through presumptive and confirmatory measures.
5. Evaluate scientific results of the analysis of physical evidence and correlate their importance to criminal investigations.

6. Analyze legal considerations of forensic science, including scientific validity, constitutional law, qualifications, requirements, professional practices, and ethical skills needed of the forensic expert.