

# BACHELOR OF SCIENCE IN APPLIED SCIENCE IN FORENSIC SCIENCE

A Bachelor of Science in Applied Science degree in Forensic Science requires a minimum of 121 semester hours. The program is designed to be rigorous and multi-disciplinary and allows for fewer electives in lower level courses but an increased flexibility in upper-division coursework.

A minor is intended to contrast with or deepen a major or General Education. Forensic Science is an interdisciplinary major. Courses that are required for, and count toward, the Forensic Science major cannot be counted toward a minor.

COURSE	TITLE	S.H.
<b>General Education Requirements</b>		
Core Competencies		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
Natural Science (2 courses, 1 with lab)		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
Arts and Humanities 6		
Social Sciences		
CJFS 1500	Introduction to Criminal Justice	3
ANTH 1500	Introduction to Anthropology	3
Social and Personal Awareness 6		
<b>Core Requirements (65 s.h.)</b>		
<b>Chemistry</b>		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
<b>Additional Biology</b>		
BIOL 3721	Genetics	3
<b>Physics</b>		
PHYS 2610 & 2610L	General Physics 1 and General Physics laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
<b>Statistics</b>		
STAT 3717	Statistical Methods	4
<b>Criminal Justice and Forensic Sciences</b>		
CJFS 1510	Survey of Forensic Sciences	3
CJFS 2602	Criminal Courts	3
CJFS 3714 & 3714L	Forensic Science: Crime Scene Investigation and Forensic Science: Crime Scene Investigation Laboratory	3
CJFS 3716 & 3716L	Forensic Science Evidence Analysis and Forensic Science Evidence Analysis Laboratory	3
CJFS 3700	Forensic Fire and Explosives Investigation	3
CJFS 4850	Special Topics in Criminal Justice	3
CJFS 4807	Criminal Justice Internship	3-12
CJFS 5814	Practice and Ethics in Forensic Science	3
<b>Concentrations (Pick One)</b>		
<b>CHEMISTRY (Select at least 13 s.h.)</b>		
CHEM 3729	Inorganic Chemistry	3
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	4
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	4
CHEM 3764	Chemical Toxicology	3
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory	4
CHEM 3786	Biochemistry 2	3
CHEM 4891	Special Topics	1-3
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	4
CHEM 5821	Intermediate Organic Chemistry	3
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	4
<b>BIOLOGY (Select at least 13 s.h.)</b>		
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
BIOL 3703 & 3703L	Clinical Immunology and Clinical Immunology Laboratory	4
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3716	Molecular Microbiology 1: Nucleic Acids	4
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	5
BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory	4
BIOL 4839	Selected Topics in Physiology	1
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory	4
CHEM 3786	Biochemistry 2	3
BIOL 4850	Problems in Biology	1-3
<b>OTHER OPTION, CHEMISTRY / BIOLOGY</b>		
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory	4
BIOL 5827	Gene Manipulation	2
CJFS 4850	Special Topics in Criminal Justice	3-5
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720R	Organic Chemistry Recitation 2	1
PHLT 3731	Drug Use and Abuse	3
PHLT 5810	Agents of Mass Casualty	3
PHLT 5812	Crisis Management in Public Health	3
<b>ANTHROPOLOGY (Select at least 16 s.h.)</b>		
ANTH 2600	Human Osteology	4
ANTH 3702	Archaeology	3
ANTH 3703	Biological Anthropology	3
ANTH 3778	Archaeological Techniques	1-9

ANTH 3779	Fieldwork in Historical and Industrial Sites Archaeology	3
ANTH 3780	Forensic Anthropology 1	4
ANTH 4800	Undergraduate Research	1-2
ANTH 4881	Forensic Anthropology 2	4
ANTH 4883	Case Studies in Forensic Anthropology	3
ANTH 4891	Advanced Topics in Biological Anthropology	3
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
GEOG 5812	Global Positioning Systems and GIScience	3

There may be other courses that qualify for upper division electives, but you must discuss these options with an academic advisor and get pre-approved.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
ENGL 1550	Writing 1	3
CJFS 1510	Survey of Forensic Sciences	3
CJFS 1500	Introduction to Criminal Justice	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
Arts and Humanities		3
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
CJFS 2602	Criminal Courts	3
ANTH 1500	Introduction to Anthropology	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
Social and Personal Awareness		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 2</b>		
<b>Fall</b>		
CMST 1545	Communication Foundations	3
CJFS 3714	Forensic Science: Crime Scene Investigation	2
CJFS 3714L	Forensic Science: Crime Scene Investigation Laboratory	1
MATH 1571	Calculus 1	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
<b>Semester Hours</b>		<b>14</b>
<b>Spring</b>		
CJFS 3700	Forensic Fire and Explosives Investigation	3
CJFS 3716	Forensic Science Evidence Analysis	2
CJFS 3716L	Forensic Science Evidence Analysis Laboratory	1
MATH 1572	Calculus 2	4
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
<b>Semester Hours</b>		<b>14</b>
<b>Year 3</b>		
<b>Fall</b>		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
CJFS 4850	Special Topics in Criminal Justice	3
STAT 3717	Statistical Methods	4

Elective 3700-Level		5
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
BIOL 2602 & 2602L	General Biology: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
Arts and Humanities		3
Elective 3700-Level		4
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
CJFS 4807	Criminal Justice Internship	6
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics laboratory 1	1
Social and Personal Awareness		3
Elective 3700-Level		2
<b>Semester Hours</b>		<b>16</b>
<b>Spring</b>		
CJFS 5814	Practice and Ethics in Forensic Science	3
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
BIOL 3721	Genetics	3
Elective 3700-Level		2
<b>Semester Hours</b>		<b>13</b>
<b>Total Semester Hours</b>		<b>121</b>

Request a Graduation Evaluation after you have completed 80-85 s.h. from the BCHHS Advising/Deans Office, 2104 Cushwa Hall, 330-941-3221.

## Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
2. Students can analyze legal situations.
3. Students will explain biology principles.
4. Students will explain chemistry principles.
5. Students will explain how biology principles relate to forensic science.
6. Students will explain how chemistry principles relate to forensic science.