



FORENSIC SCIENCE

Description

Website: <http://forensic.unl.edu/>

Forensic science includes any science that is conducted for use in the legal system. The need for science in the courtroom has greatly increased as a result of legal rulings and the positioning of forensic science in popular culture. The forensic science degree program provides students with an education in the use of science, mathematics, and statistics in legal proceedings. There are four options of study:

- Forensic Biology Option
- Crime Scene Investigation Option
- Forensic Chemistry Option
- Pre-Law Option 3-3 Program

College Requirements

College Admission

Requirements for admission into the College of Agricultural Sciences and Natural Resources (CASNR) are consistent with general University admission requirements (one unit equals one high school year): 4 units of English, 4 units of mathematics, 3 units of natural sciences, 3 units of social sciences, and 2 units of world language. Students must also meet performance requirements: a 3.0 cumulative high school grade point average OR an ACT composite of 20 or higher, writing portion not required OR a score of 1040 or higher on the SAT Critical Reading and Math sections OR rank in the top one-half of graduating class; transfer students must have a 2.0 (on a 4.0 scale) cumulative grade point average and 2.0 on the most recent term of attendance.

Admission Deficiencies/Removal of Deficiencies

Students who are admitted to CASNR with core course deficiencies must remove these deficiencies within the first 30 credit hours at the University of Nebraska–Lincoln, or within the first calendar year at Nebraska, whichever takes longer. College-level coursework taken to remove deficiencies may be used to meet degree requirements in CASNR.

Deficiencies in the required entrance subjects can be removed by the completion of specified courses in the University or by correspondence.

The Office of Admissions, Alexander Building (south entrance), City Campus, provides information to new students on how deficiencies can be removed.

College Degree Requirements

Curriculum Requirements

The curriculum requirements of the College consist of three areas: ACE (Achievement-Centered Education), College of Agricultural Sciences and Natural Resources Core, and Degree Program requirements and electives. All three areas of the College Curriculum Requirements are incorporated within the description of the Major/Degree Program sections of the catalog. The individual major/degree program listings of classes ensure that a student will meet the minimum curriculum requirements of the College.

World Languages/Language Requirement

Two units of a world language are required. This requirement is usually met with two years of high school language.

Experiential Learning

All undergraduates in the College of Agricultural Sciences and Natural Resources must take an Experiential Learning (EL) designated course. This may include 0-credit courses designed to document co-curricular activities recognized as Experiential Learning.

Minimum Hours Required for Graduation

The College grants the bachelors degree in programs associated with agricultural sciences, natural resources, and related programs. Students working toward a degree must earn at least 120 semester hours of credit. A minimum cumulative grade point average of C (2.0 on a 4.0 scale) must be maintained throughout the course of studies and is required for graduation. Some degree programs have a higher cumulative grade point average required for graduation. Please check the degree program on its graduation cumulative grade point average.

Grade Rules

Removal of C-, D, and F Grades

Only the most recent letter grade received in a given course will be used in computing a student's cumulative grade point average if the student has completed the course more than once and previously received a grade or grades below C in that course.

The previous grade (or grades) will not be used in the computation of the cumulative grade point average, but it will remain a part of the academic record and will appear on any transcript.

A student can remove from their cumulative average a course grade of C-, D+, D, D-, or F if the student repeats the same course at the University of Nebraska and receives a grade other than P (pass), I (incomplete), N (no pass), W (withdrew), or NR (no report). If a course is no longer being offered, it is not eligible for the revised grade point average computation process.

For complete procedures and regulations, see the Office of the University Registrar website at <http://www.unl.edu/regrec/course-repeats> (<http://www.unl.edu/regrec/course-repeats/>).

Pass/No Pass

Students in CASNR may take any course offered on a Pass/No Pass basis within the 24-hour limitation established by the Faculty Senate. However, a department may specify that the Pass/No Pass status of its courses be limited to non-majors or may choose to offer some courses for letter grades only.

GPA Requirements

A minimum cumulative grade point average of C (2.0 on a 4.0 scale) must be maintained throughout the course of studies and is required for graduation. Some degree programs have a higher cumulative grade point average required for graduation. Please check the degree program on its graduation cumulative grade point average.

Transfer Credit Rules

To be considered for admission a transfer student, Nebraska resident or nonresident, must have an accumulated average of C (2.0 on a 4.0 scale) and a minimum C average in the last semester of attendance at another college. Transfer students who have completed less than 12 credit hours of college study must submit either ACT or SAT scores.

Ordinarily, credits earned at an accredited college are accepted by the University. The College, however, will evaluate all hours submitted on an application for transfer and reserves the right to accept or reject any of them. Sixty (60) is the maximum number of hours the University will accept on transfer from a two-year college. Ninety (90) is the maximum number of hours the University will accept from a four-year college. Transfer credit in the degree program must be approved by the degree program advisor on a Request for Substitution Form to meet specific course requirements, group requirements, or course level requirements in the major. At least 9 hours in the major field, including the capstone course, must be completed at the University of Nebraska–Lincoln regardless of the number of hours transferred.

The College will accept no more than 10 semester hours of C-, D+, D, and D- grades from other schools. The C-, D+, D, and D- grades can only be applied to free electives. This policy does not apply to the transfer of grades from UNO or UNK to the University of Nebraska–Lincoln.

Joint Academic Transfer Programs

The College of Agricultural Sciences and Natural Resources has agreements with many institutions to support joint academic programs. The transfer programs include dual degree programs and cooperative degree programs. Dual degree programs offer students the opportunity to receive a degree from a participating institution and also to complete the requirements for a bachelor of science degree in CASNR. Cooperative programs result in a single degree from either the University of Nebraska–Lincoln or the cooperating institution.

Dual Degree Programs

A to B Programs

The A to B Program, a joint academic program offered by the CASNR and participating community colleges, allows students to complete the first two years of a degree program at the participating community college and continue their education and study in a degree program leading toward a bachelor of science degree.

The A to B Program provides a basic knowledge plus specialized coursework. Students transfer into CASNR with junior standing.

Depending on the community college, students enrolled in the A to B Program may complete the requirements for an associate of science at the community college, transfer to the University of Nebraska–Lincoln, and work toward a bachelor of science degree.

Participating community colleges include:

- Central Community College
- Metropolitan Community College
- Mid-Plains Community College
- Nebraska College of Technical Agriculture
- Nebraska Indian Community College
- Northeast Community College
- Southeast Community College
- Western Nebraska Community College

3+2 Programs

Two specialized degree programs in **animal science** and **veterinary science** are offered jointly with an accredited college or school of veterinary medicine. These two programs permit CASNR animal science or veterinary science students to receive a bachelor of science degree from the University of Nebraska–Lincoln with a degree in animal science or veterinary science after successfully completing two years of the

professional curriculum in veterinary medicine at an accredited veterinary school. Students who successfully complete the 3+2 Program, must provide transcripts and complete the Application for Degree form via MyRED. Students without MyRED access may apply for graduation in person at Husker Hub in the Canfield Administration Building, or by mail. Students should discuss these degree programs with their academic advisor.

Cooperative Degree Programs

Academic credit from the University and a cooperating institution are applied towards a four-year degree from either the University of Nebraska–Lincoln (University degree-granting program) or the cooperating institution (non-University degree-granting program). All have approved programs of study.

UNL Degree-Granting Programs

A University of Nebraska–Lincoln degree-granting program is designed to provide students the opportunity to complete a two-year program of study at one of the four-year institutions listed below, transfer to CASNR, and complete the requirements for a bachelor of science degree.

Chadron State College. Chadron State College offers a 2+2 program leading to a grassland ecology and management degree program and a transfer program leading to a bachelor of science in agricultural education in the teaching option.

Wayne State College. Wayne State College offers a 3+1 program leading to a bachelor of science in plant biology in the ecology and management option and a 3+1 program leading to a bachelor of science in Applied Science.

University of Nebraska at Kearney. Transfer programs are available for students pursuing degree programs leading to a bachelor of science degree.

University of Nebraska at Omaha. Transfer programs are available for students pursuing degree programs leading to a bachelor of science degree.

Non University of Nebraska–Lincoln Degree-Granting Programs

CASNR cooperates with other institutions to provide coursework that is applied towards a degree at the cooperating institution. Pre-professional programs offered by CASNR allow students to complete the first two or three years of a degree program at the University prior to transferring and completing a degree at the cooperating institution.

Chadron State College–Range Science. The 3+1 Program in range science allows Chadron State College students to pursue a range science degree through Chadron State College. Students complete three years of coursework at Chadron State College and one year of specialized range science coursework (32 credit hours) at CASNR.

Residency

Students must complete at least 30 of the total hours for their degree using University of Nebraska–Lincoln credits. At least 18 of the 30 credit hours must be in courses offered through CASNR¹ (>299) including the appropriate ACE 10 degree requirement or an approved ACE 10 substitution offered through another Nebraska college and excluding independent study regardless of the number of hours transferred. Credit earned during education abroad may be used toward the residency requirement if students register through the University of Nebraska–Lincoln and participate in prior-approved education abroad programs.

The University of Nebraska–Lincoln open enrollment and summer independent study courses count toward residence.

¹ Includes courses taught by CASNR faculty through interdisciplinary prefixes (e.g., LIFE, MBIO, ENVR, SCIL, EAEP, ENSC) and CASNR crosslisted courses taught by non-CASNR faculty.

Online and Distance Education

There are many opportunities to earn college credit online through the University of Nebraska–Lincoln. Some of these credits may be applicable not only as elective credits but also toward the fulfillment of the College's education requirements. Credits earned online may count toward residency. However, certain offerings may not be counted toward scholarship requirements or academic recognition criteria.

For further information, contact:

Office of Online and Distance Education
University of Nebraska–Lincoln
305 Brace Labs
Lincoln, NE 68588-0109
402-472-4681
<http://online.unl.edu/>

Independent Study Rules

Students wishing to take part in independent studies must obtain permission; complete and sign a contract form; and furnish copies of the contract to the instructor, advisor, departmental office, and the Dean's Office. The contract should be completed before registration. Forms are available in 103 Agricultural Hall or online at the CASNR website.

Independent study projects include research, literature review or extension of coursework under the supervision and evaluation of a departmental faculty member.

Students may only count 12 hours of independent study toward their degrees and no more than 6 hours can be counted during their last 36 hours earned, excluding senior thesis, internships, and courses taught under an independent study number.

Other College Degree Requirements

Capstone Course Requirement

A capstone course is required for each CASNR degree program. A capstone course is defined as a course in which students are required to integrate diverse bodies of knowledge to solve a problem or formulate a policy of societal importance.

ACE Requirements

All students must fulfill the Achievement Centered Education (ACE) requirements. Information about the ACE program may be viewed at ace.unl.edu/ (<https://ace.unl.edu/>).

The minimum requirements of CASNR reflect the common core of courses that apply to students pursuing degrees in the college. Students should work with an advisor to satisfy ACE outcomes 1, 2, 3, 4, 6, and 10 with the college requirements.

Catalog Rule

Students must fulfill the requirements stated in the catalog for the academic year in which they are first admitted to the University of Nebraska–Lincoln or when they were first admitted to a Joint Academic Transfer Program. Students transferring from a community college, but without admission to a Joint Academic Transfer Program, may

be eligible to fulfill the requirements as stated in the catalog for an academic year in which they were enrolled at the community college prior to attending the University of Nebraska–Lincoln. This decision should be made in consultation with academic advisors, provided the student a) was enrolled in a community college during the catalog year they are utilizing, b) maintained continuous enrollment at the previous institution for 1 academic year or more, and c) continued enrollment at the University of Nebraska–Lincoln within 1 calendar year from their last term at the previous institution. In consultation with advisors, a student may choose to follow a subsequent catalog for any academic year in which they are admitted to and enrolled as a degree-seeking student at the University of Nebraska–Lincoln in the College of Agricultural Sciences and Natural Resources. Students must complete all degree requirements from a single catalog year. The catalog which a student follows for degree requirements may not be more than 10 years old at the time of graduation.

Learning Outcomes

Graduates of forensic science will be able to:

1. Demonstrate factual and conceptual knowledge of forensic science, including knowledge of the U.S.A. legal system, pattern evidence, biological evidence, chemical/materials evidence, chain of custody, and ethics.
2. Effectively communicate knowledge of forensic science through written and oral presentations.
3. Demonstrate skills and foundational knowledge that will provide thorough qualifications for employment in a forensic science laboratory.

Major Requirements

Core Requirements

The following basic courses are required for a bachelor of science in forensic science. In addition, students must select and meet the requirements of one of the options.

College Integrative Course

SCIL 101	Science and Decision-Making for a Complex World	3
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Credit Hours Subtotal: 3

Natural Sciences Requirements

CASNR Approved Life Sciences		
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LIFE 120 & 120L	Fundamentals of Biology I and Fundamentals of Biology I laboratory (ACE 4)	4
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LIFE 121 & 121L	Fundamentals of Biology II and Fundamentals of Biology II Laboratory	4
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Chemistry

CHEM 109A & CHEM 109L	General Chemistry I and General Chemistry I Laboratory	4
or CHEM 113A & CHEM 113L	Fundamental Chemistry I and Fundamental Chemistry I Laboratory	

CHEM 110A & CHEM 110L	General Chemistry II and General Chemistry II Laboratory (grade of C, P or better in CHEM 109A)	4
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CHEM 251	Organic Chemistry I	4	Credit Hours Subtotal:	53
& CHEM 253	and Organic Chemistry I Laboratory (grade of C, P or better in CHEM 110A)			
Physics			Total Credit Hours	121
PHYS 141	Physics for Life Sciences I	5		
Credit Hours Subtotal:		25		
Mathematics and Statistics (ACE 3)				
MATH 106	Calculus I	5		
STAT 218	Introduction to Statistics	3		
Credit Hours Subtotal:		8		
Communications				
<i>Written Communication (ACE 1)</i>				
Select one of the following:		3		
ENGL 150	Writing and Inquiry		BIOC 401	Elements of Biochemistry
ENGL 151	Writing for Change		& 401L	and Laboratory for Elements of Biochemistry ¹
ENGL 254	Writing and Communities		BIOS 201	General Genetics
JGEN 120	Basic Business Communication		& BIOS 202	and Genetics, Molecular and Cellular Biology Laboratory
JGEN 200	Technical Communication I		BIOS 213	Human Physiology
JGEN 300	Technical Communication II		& 213L	and Human Physiology Laboratory ²
<i>Communications and Interpersonal Skills (ACE 2)</i>			BIOS 303	Molecular Biology
Select one of the following:		3	BIOS 312	Microbiology
ALEC 102	Interpersonal Skills for Leadership		& BIOS 314	and Microbiology Laboratory
COMM 101	Communication in the 21st Century		BIOS 443 /	Immunology
COMM 209	Public Speaking		MBIO 443	
COMM 210	Communicating in Small Groups		CHEM 252	Organic Chemistry II
COMM 215	Visual Communication		& CHEM 254	and Organic Chemistry II Laboratory
COMM 283	Interpersonal Communication		FORS 215	Laboratory Safety in Forensic Science
COMM 286	Business and Professional Communication		FORS 401	Forensic Biology
JGEN 300	Technical Communication II		& 401L	and Forensic Biology Laboratory
MRKT 257	Sales Communication		FORS 403	Advanced Forensic Photography
NRES 301	Environmental Communication Skills		FORS 410	Advanced Forensic DNA Methods
TMFD 121	Visual Communication with Animation		PHYS 142	Physics for Life Sciences II
Credit Hours Subtotal:		6	Select from the following:	5
Economics (ACE 8)			BIOS 214	Human Anatomy
ECON 200	Economic Essentials and Issues	3	BIOS 412	Human Genetics
Credit Hours Subtotal:		3	BIOS 420 /	Molecular Genetics
ACE Requirement			MBIO 420	
Select one course each from ACE outcomes 5, 7, and 9		9	BIOS 477	Bioinformatics and Molecular Evolution
Credit Hours Subtotal:		9	CHEM 221A	Elementary Quantitative Analysis
Forensic Science Core Requirements			& CHEM 221L	and Elementary Quantitative Analysis
CRIM 101	Survey of Criminal Justice (ACE 6)	3		Laboratory
FORS 120	Introduction to Forensic Science (Minimum C grade required)	2	MATH 107	Calculus II
FORS 120L	Introduction to Forensic Science Laboratory (Minimum C grade required)	1		Any 300-level or above course in BIOS, BIOC, CHEM, ENTO, FORS or PHYS
FORS 200	Forensic Science Seminar	1	Select 7-8 hours of professional electives	7-8
FORS 215	Laboratory Safety in Forensic Science	1	Credit Hours Subtotal:	53
FORS 411	Overview of Forensic Comparative Analysis	3	Total Credit Hours	53
FORS 485	Forensic Science Capstone (ACE 10)	3		
Credit Hours Subtotal:		14		
Option Requirements (Biology, Chemistry, CSI, or Pre-Law at 56 hrs)				
Complete requirements		53		

¹ Students interested in graduate or professional schools including medicine and pharmacy should substitute BIOC 431 and BIOC 432.

² Students may substitute BIOS 214.

Crime Scene Investigation Option

The Crime Scene Investigation Option prepares students for a career in law enforcement and investigation. This option emphasizes broad understanding of forensic science as applied to the acquisition, preservation, interpretation, and presentation of evidence. This option



prepares students for graduate study in forensic science and other natural and physical sciences.

Crime Scene Investigation Requirements

CHEM 252 & CHEM 254	Organic Chemistry II and Organic Chemistry II Laboratory	4	Select any 300-level or above courses in BIOS, BIOC, CHEM, ENTO, FORS, PHYS, or MATH 208	3-4
ENTO 115 / BIOS 115	Insect Biology	3	Select 5-6 hours of professional electives	5-6
ENTO 116 / BIOS 116	Insect Identification	1	Credit Hours Subtotal:	52
FORS 215	Laboratory Safety in Forensic Science	1	Total Credit Hours	52
FORS 306	Crime Scene Management	1		
FORS 307	Forensic DNA for Crime Scene Investigators	3		
FORS 320 or FORS 330	Latent Print Analysis Introduction to Firearms Examination	3		
FORS 400 & 400L	Crime Scene Investigation and Crime Scene Investigation Laboratory	4		
FORS 403	Advanced Forensic Photography	1		
FORS 404	Bloodstains as Evidence	2		
FORS 414 / ENTO 414	Forensic Entomology	3		
FORS 445	Human Remains in Forensic Science	4		
PHYS 142	Physics for Life Sciences II	5		
PLAS 215	Genetics	4		
Select one 300-level or above course from BIOS, BIOC, CHEM, ENTO, FORS, PHYS, or MATH 107		8-9		
Select 7-8 hours of professional electives		7-8		
Credit Hours Subtotal:		55		
Total Credit Hours		55		

Forensic Chemistry Option

The Forensic Chemistry Option is designed for students interested in a laboratory-based career focusing on the chemical analysis of forensically important materials. Students will learn basic chemistry techniques and be prepared for graduate or professional careers in academia, research, industry, law, or medicine.

Forensic Chemistry Requirements

BIOC 401 & 401L	Elements of Biochemistry and Laboratory for Elements of Biochemistry	4	ENTO 115 / BIOS 115	Insect Biology	3
BIOS 213 & 213L	Human Physiology and Human Physiology Laboratory	4	ENTO 116 / BIOS 116	Insect Identification	1
CHEM 221A & CHEM 221L	Elementary Quantitative Analysis and Elementary Quantitative Analysis Laboratory	5	FORS 307	Forensic DNA for Crime Scene Investigators	3
CHEM 252 & CHEM 254	Organic Chemistry II and Organic Chemistry II Laboratory	4	FORS 320	Latent Print Analysis	3
CHEM 421 & CHEM 423	Analytical Chemistry and Analytical Chemistry Laboratory	5	FORS 330	Introduction to Firearms Examination	3
CHEM 471	Physical Chemistry	4	FORS 400 & 400L	Crime Scene Investigation and Crime Scene Investigation Laboratory	4
FORS 215	Laboratory Safety in Forensic Science	1	FORS 404	Bloodstains as Evidence	2
FORS 340	Forensic Chemistry	4	PLAS 215	Genetics	4
FORS 415	Forensic Toxicology	3	Select one of the following:		3-4
MATH 107	Calculus II	4	CHEM 221A & CHEM 221L	Elementary Quantitative Analysis and Elementary Quantitative Analysis Laboratory	
PHYS 142	Physics for Life Sciences II	5	CHEM 252 & CHEM 254	Organic Chemistry II and Organic Chemistry II Laboratory	
Total Credit Hours					26

Pre-Law: Forensic Biology and CSI Requirements (Year 4 Forensic Science/Year 1 College of Law)		FORS 300 Forensic Taphonomy
Complete the First Year Curriculum in the College of Law. First Year curriculum can be found on the College of Law website - https://law.unl.edu/first-year-curriculum (https://law.unl.edu/first-year-curriculum/)	30	Prerequisites: LIFE 120/121, CHEM 109A/109L and CHEM 110A/110L, and FORS 120/L Description: Forensic application of processes associated with decomposition and preservation of organic materials. Credit Hours: 3 Max credits per semester: 3 Max credits per degree: 3 Grading Option: Graded with Option Offered: FALL
Total Credit Hours	30	
FORS 120 Introduction to Forensic Science		FORS 302 Principles of Forensic Photography
Notes: Register for FORS 120L as an optional one credit hour lab. Description: The United States legal system, serology, DNA analysis, crime scene investigation, comparative analysis, digital forensics, and behavioral sciences. Credit Hours: 2 Max credits per semester: 2 Max credits per degree: 2 Grading Option: Graded with Option Offered: FALL Prerequisite for: FORS 200; FORS 215; FORS 300; FORS 302; FORS 306; FORS 350; FORS 400; FORS 401; FORS 411; FORS 445		Prerequisites: FORS 120/L or instructor permission Description: Concepts, techniques, analysis and interpretation of photographic evidence. Credit Hours: 1 Max credits per semester: 1 Max credits per degree: 1 Grading Option: Graded with Option Offered: FALL
FORS 120L Introduction to Forensic Science Laboratory		FORS 306 Crime Scene Management
Prerequisites: Forensic Science major Description: Practical aspects of forensic sciences. Forensic entomology, soil science, blood spatter, fingerprints, trace evidence, odontology, footprint analysis, palynology, and osteology. Credit Hours: 1 Max credits per semester: 1 Max credits per degree: 1 Grading Option: Graded with Option Offered: FALL Prerequisite for: FORS 200; FORS 215; FORS 302; FORS 306; FORS 350; FORS 400; FORS 401; FORS 411 Course and Laboratory Fee: \$25		Prerequisites: FORS 120/L or instructor permission Description: Critical thinking, reasoning, investigative failure, resource management, and supervision in criminal investigation. Credit Hours: 1 Max credits per semester: 1 Max credits per degree: 1 Grading Option: Graded with Option Offered: SPRING
FORS 200 Forensic Science Seminar		FORS 307 Forensic DNA for Crime Scene Investigators
Prerequisites: FORS 120/L or instructor permission Description: Current issues in research, ethics, and professional practice related to forensic science. Credit Hours: 1 Max credits per semester: 1 Max credits per degree: 1 Grading Option: Graded with Option Offered: SPRING Prerequisite for: FORS 320; FORS 330; FORS 350; FORS 400; FORS 403		Prerequisites: LIFE 120/L and LIFE 121/L Description: Basic terminology, concepts, and techniques that are currently, or have been previously used in operational crime laboratories. The concepts of laboratory techniques, measurements, analysis of the various analytical methods, and quality assurance/quality control are also included. Credit Hours: 3 Max credits per semester: 3 Max credits per degree: 3 Grading Option: Graded Offered: SUMMER
FORS 215 Laboratory Safety in Forensic Science		FORS 320 Latent Print Analysis
Prerequisites: FORS 120; FORS 120L Description: Explores different types of laboratory designs, basic laboratory and chemical safety, biosafety, radiation safety, and large animal/agricultural safety. Topics will include worker/employer responsibilities, examples of laboratory accidents and preventative measures, and applicable regulatory authorities. Credit Hours: 1 Max credits per semester: 1 Max credits per degree: 1 Grading Option: Graded Offered: SPRING		Prerequisites: FORS 200 Description: An introduction to the history of latent print examination; physiology and biology of fingerprints; fingerprint pattern recognition; recording finger and palm prints; latent print analysis and comparison. Credit Hours: 3 Max credits per semester: 3 Max credits per degree: 3 Grading Option: Graded Offered: SPRING

FORS 330 Introduction to Firearms Examination**Prerequisites:** FORS 200**Description:** Introduction to the history of firearms examination, manufacturing methods for firearms and ammunition components, examination of cartridge cases and current legal issues firearms examiners encounter.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** FALL**FORS 340 Forensic Chemistry****Prerequisites:** Successful completion or parallel registration in CHEM 251 and CHEM 253.**Description:** Introduction to theory and practice of Forensic Chemistry. Forms a foundation for more advanced studies in Forensic Chemistry. Study of current techniques used in operational crime laboratories in the United States. Also covers laboratory safety, QA/QC, data analysis, and statistical analysis.**Credit Hours:** 4**Max credits per semester:** 4**Max credits per degree:** 4**Grading Option:** Graded**Offered:** SPRING**FORS 350 Death Investigations****Prerequisites:** FORS 120/L and FORS 200**Description:** Reinforces knowledge regarding the role of the crime scene investigator as well as the others on scene and outside of the scene. Builds on the severity of the nature of the death scene from natural death to homicide. Covers equivocal deaths as well as the stress induced on the CSI and the potential effects of vicarious trauma. Exposure to real cases worked by local professionals, concluding in individual researched case presentations.**Credit Hours:** 2**Max credits per semester:** 2**Max credits per degree:** 2**Grading Option:** Graded**Offered:** SPRING**FORS 400 Crime Scene Investigation****Prerequisites:** FORS 120/L, FORS 200 and FORS 411 or instructor permission**Description:** Identification, collection, preservation, presentation of physical evidence. Ethics and chain of custody.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** FALL**FORS 400L Crime Scene Investigation Laboratory****Prerequisites:** Parallel FORS 400**Notes:** A lab for credit to go with FORS 400.**Credit Hours:** 1**Max credits per semester:** 1**Max credits per degree:** 1**Grading Option:** Graded with Option**Offered:** FALL**Course and Laboratory Fee:** \$50**FORS 401 Forensic Biology****Prerequisites:** LIFE 120/L and LIFE 121/L, BIOS 205, BIOS 201, and FORS 120/L or instructor permission**Description:** Ethics, quality assurance, quality control, analysis, and interpretation of biological evidence for the legal system.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** SPRING**Prerequisite for:** FORS 410; FORS 485**FORS 401L Forensic Biology Laboratory****Prerequisites:** Parallel FORS 401**Notes:** A lab for credit to go with FORS 401.**Credit Hours:** 1**Max credits per semester:** 1**Max credits per degree:** 1**Grading Option:** Graded**Offered:** SPRING**Prerequisite for:** FORS 410; FORS 485**Course and Laboratory Fee:** \$50**FORS 403 Advanced Forensic Photography****Prerequisites:** FORS 200.**Description:** Advanced concepts, techniques, analysis, and interpretation of photographic evidence.**Credit Hours:** 1**Max credits per semester:** 1**Max credits per degree:** 1**Grading Option:** Graded with Option**Offered:** SPRING**Prerequisite for:** FORS 404; FORS 411**FORS 404 Bloodstains as Evidence****Prerequisites:** FORS 403**Description:** Documentation and interpretation of geometric bloodstains, calculating probable origins, and collecting blood as a source of DNA evidence.**Credit Hours:** 2**Max credits per semester:** 2**Max credits per degree:** 2**Grading Option:** Graded with Option**Offered:** FALL**FORS 410 Advanced Forensic DNA Methods****Prerequisites:** FORS 401/401L**Description:** Provides a comprehensive description of forensic DNA analysis and includes a complete discussion of the process of forensic DNA analysis, from evidence collection to statistical analysis of DNA profiles, including the subjects of DNA extraction, quantitation, PCR amplification, allele detection, PCR artifact identification, and DNA profile interpretation. Particular attention will be given to the areas of mixed profile interpretation and statistical methods**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** FALL**Prerequisite for:** FORS 485

FORS 411 Overview of Forensic Comparative Analysis

Prerequisites: FORS 120/L, STAT 218 and LIFE 121/L or CHEM 110/L or FORS 403

Description: Covers the main forensic science comparisons that are seen in most crime scene investigation units and forensic science labs. Provides a broad overview of the concepts and analytical techniques of forensic comparative science. Covers basic microscopic applications, photography, computer applications, courtroom testimony, ethics, cognitive bias, and the concepts of error and sufficiency in forensic science.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: SPRING

Prerequisite for: FORS 400

FORS 414 Forensic Entomology

Crosslisted with: ENTO 414, ENTO 814, FORS 814

Prerequisites: ENTO 115 or equivalent introductory course.

Description: Application of entomology to legal issues. Criminal investigations, insects of forensic importance, insect succession on carrion, and case studies.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

FORS 415 Forensic Toxicology

Prerequisites: CHEM 252/254; BIOC 401 (concurrent).

Description: Provides a comprehensive understanding of the principles of toxicology, pharmacokinetics, metabolism, analytical methods and instrumentation relative to forensic science.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: FALL

Prerequisite for: FORS 485

FORS 445 Human Remains in Forensic Science

Prerequisites: LIFE 120/L and LIFE 121/L, CHEM 109A/L, CHEM 110A/L, and FORS 120/L.

Description: Forensic anthropology within the broader context of forensic sciences and biological anthropology. Estimation of biological profile and trauma assessment.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded with Option

Offered: FALL

Course and Laboratory Fee: \$90

FORS 446 Pollen Analysis for Behavioral, Biological and Forensic Science

Crosslisted with: FORS 846, NRES 446, NRES 846

Prerequisites: FORS 120

Description: Collection, processing, identification of common North American pollen types. Pollination ecology relating to scene reconstruction. Fundamental statistics and presentation requirements for a legal and scientific audience.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded with Option

Offered: FALL

FORS 485 Forensic Science Capstone

Prerequisites: FORS 400/L or FORS 410 or FORS 415

Description: Application and integration of principles to address emerging issues involving forensic science.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: SPRING

ACE: ACE 10 Integrated Product

Course and Laboratory Fee: \$50

Experiential Learning: Case/Project-Based Learning

FORS 495 Internship in Forensic Science

Prerequisites: Sophomore standing and permission.

Notes: Requires a structured practical experience under the supervision of a forensic science professional.

Credit Hours: 1-4

Min credits per semester: 1

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded with Option

FORS 496 Independent Study in Forensic Science

Prerequisites: Sophomore standing and permission.

Notes: Requires an individual or group project in research or literature review, or extension of course work.

Credit Hours: 1-6

Min credits per semester: 1

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Graded with Option

FORS 498 Special Topics in Forensic Science

Crosslisted with: FORS 898

Prerequisites: 3 hrs FORS or equivalent.

Description: Current issues in forensic science.

Credit Hours: 1-6

Min credits per semester: 1

Max credits per semester: 6

Max credits per degree: 12

Grading Option: Graded with Option

**FORS 499H Honors Thesis**

Prerequisites: Good standing in the University Honors Program and permission. AGRI 299H recommended.

Description: Conduct a research project and write a University Honors Program or undergraduate thesis.

Credit Hours: 1-6

Min credits per semester: 1

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Graded

Career Information

The following represents a sample of the internships, jobs and graduate school programs that current students and recent graduates have reported.

Internships

- Intern, FBI - Washington, DC
- Research Intern, Institute of Environmental Science & Research - Auckland, New Zealand
- Intern, Criminal Investigation Division - Washington, DC
- Drug Lab Intern, Honolulu Police Dept Scientific Investigation - Honolulu, HI
- Intern, Estee Lauder R&D Headquarters - New York, NY
- BSCO Intern, Boulder County Sheriff's Office - Boulder, CO
- Intern, North Dakota Attorney General's Office - Bismarck, ND
- Intern, Homeland Security Investigations - Kansas City, KS
- Correctional Officer Intern, NE Dept. of Correctional Services - Lincoln, NE
- Intern, Pottawattamie County Sheriff's Office - Council Bluffs, IA
- Research Intern, Eli Lily and Company - Indianapolis, IN
- Crime Laboratory Intern, Omaha Police Department - Omaha, NE
- Law Enforcement Intern, Cook County Sheriff - Cook County, IL
- Intern, Wichita Police Dept. - Wichita, KS
- Intern/Lab Tech, MatMaCorp - Lincoln, NE
- Troop B Intern, Nebraska State Patrol - Norfolk, NE
- Development Research Intern, DuPont Pioneer - Johnston, IA
- Student Trainee in Biological Sciences, US Department of Agriculture - Lincoln, NE
- Intern, Omaha Police Department - Omaha, NE
- Intern, Kansas City Police Department - Kansas City, MO

Graduate & Professional Schools

- Master's in Crime Scene Investigation, George Washington University - Washington, DC
- Nursing, University of the Incarnate Word - San Antonio, TX
- M.D., University of Nebraska Medical Center - Omaha, NE
- Master's in Secondary Science Education, University of Nebraska-Lincoln - Lincoln, NE
- J.D., Southern Methodist University - Dallas, TX
- Master's in Applied Science - Forensic Palynology, University of Nebraska-Lincoln - Lincoln, NE
- Pharm. D, University of Nebraska Medical Center - Omaha, NE
- M.S., Central Oklahoma University - Edmond, OK
- Master's in Applied Science - Forensic Biochemistry, University of Nebraska-Lincoln - Lincoln, NE
- Master's in Forensic Science, Saint Joseph's College - Rensselaer, IN

- Animal Breeding and Genetics, University of Nebraska-Lincoln - Lincoln, NE
- Masters in Biochemistry, University of Nebraska-Lincoln - Lincoln, NE
- Medical Laboratory Science, University of Nebraska Medical Center - Omaha, NE
- Masters in Arts - Emphasis in Science Teaching, University of Nebraska-Lincoln - Lincoln, NE
- Master of Science, Forensic Science, Nebraska Wesleyan University - Lincoln, NE
- Doctorate of Nursing Practice, University of Nebraska Medical Center - Omaha, NE
- Nursing, Nebraska Methodist College - Omaha, NE
- Master's in Forensic Science, Nebraska Wesleyan University - Lincoln, NE
- Master's in Forensic Biochemistry, Nebraska Wesleyan University - Lincoln, NE
- Master's in Forensic Technologies, University of New-Haven - New Haven, CT
- Secondary Science Education, M.A., University of Nebraska-Lincoln - Lincoln, NE
- Ph.D. - Ag & Environmental Chemistry, UC Davis - Davis, CA
- Master's in Science, University of California - Davis - Davis, CA
- Master's in Toxicology, University of Michigan - Ann Arbor, MI
- Master's - School of Natural Resources, University of Nebraska - Lincoln - Lincoln, NE