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, Crime Scene Investigation, Forensic Chemistry, and the Pre-Law 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 studies, and 2 units of foreign language. Students must also meet performance requirements (ACT composite of 20 or higher OR combined SAT score of 950 or higher OR combined SAT score of 1600 or higher OR combined SAT score of 2300 or higher) and 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. For students entering the PGA Golf Management degree program, a certified golf handicap of 12 or better (e.g., USGA handicap card) or written ability (MS Word file) equivalent to a 12 or better handicap by a PGA professional or high school golf coach is required. For more information, please visit: http://pgm.unl.edu/requirements.

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 UNL, or within the first calendar year at UNL, whichever takes longer, excluding foreign languages. Students have up to 60 credit hours to remove foreign language deficiencies. College-level course work taken to remove deficiencies may be used to meet degree requirements in CASNR.

Deficiencies in the required entrance subjects can be removed by 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 insures that a student will meet the minimum curriculum requirements of the College.

Foreign Languages/Language Requirement
Two units of a foreign language are required. This requirement is usually met with two years of high school language.

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.

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 his/her 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 (withdrawn), 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.

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.

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 is the maximum number of hours UNL will accept on transfer from a two-year college. Ninety is the maximum number of hours UNL 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 UNL 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 UNL.

Website:
http://forensic.unl.edu/
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 requirements for a bachelor of science degree in CASNR. Cooperative programs result in a single degree from either UNL 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 course work. 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 degree at the community college, transfer to UNL, 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
- 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 UNL 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 complete the "Application for Degree" form and provide transcripts to the Credentials Clerk, Office of the University Registrar, 107 Canfield Administration Building, UNL. Students should discuss these degree programs with their academic advisor.

Cooperative Degree Programs
Academic credit from UNL and a cooperating institution is applied towards a four-year degree from either UNL (UNL degree-granting program) or the cooperating institution (non UNL degree-granting program). All have approved programs of study.

UNL Degree-Granting Programs
A UNL 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.

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. The University of Nebraska at Omaha (UNO) cooperates with CASNR in providing four-semester pre-agricultural sciences, pre-natural resources, pre-food science and technology, pre-horticulture and pre-turfgrass and landscape management transfer programs.

A student enrolled in these programs may transfer all satisfactorily completed academic credits identified in the suggested program of study, and enter CASNR to study toward a degree program leading to a bachelor of science degree. The total program would require a minimum of four years or eight semesters (16 credit hours/semester or 120 credit hours).

UNL CASNR faculty teach horticulture and food science and technology courses at UNO to assist an urban population in better understanding the food processing, horticulture, and landscape horticulture industries.

For more information, contact the CASNR Dean’s Office, 800-472-8800, ext. 2541.

Non UNL Degree-Granting Programs
The CASNR cooperates with other institutions to provide course work 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 UNL 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 course work at Chadron State College and one year of specialized range science course work (32 credit hours) at CASNR.

Dordt College (Iowa) – Agricultural Education: Teaching Option. This program allows students to pursue an Agricultural Education Teaching Option degree leading toward a bachelor of science in agricultural education. Students at Dordt College will complete 90 credit hours in the Agricultural Education: Teaching Option Transfer Program.

Residency
Students must complete at least 30 of the total hours for their degree using UNL credits. At least 18 of the 30 credit hours must be in courses offered through CASNR \(^1\) (e.g., LIFE, MBIO, ENVR, SCIL, EAEF, HRTM, ENSC) and CASNR crosslisted courses taught by non-CASNR faculty. Includes courses taught by CASNR faculty through interdisciplinary prefixes (e.g., LIFE, MBIO, ENVR, SCIL, EAEF, HRTM, 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 course work under 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 www.ace.unl.

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 UNL or when they were first admitted to a Joint Academic Transfer Program. 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 UNL 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
Majors in 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 |
Credit Hours Subtotal: 3

Natural Sciences Requirements
CASNR Approved Life Sciences
| LIFE 120 & LIFE 120L | Fundamentals of Biology I and Fundamentals of Biology I Laboratory | 4 |
| LIFE 121 & LIFE 121L | Fundamentals of Biology II and Fundamentals of Biology II Laboratory | 4 |

Chemistry
| CHEM 109 | General Chemistry I | 4 |
| CHEM 110 | General Chemistry II | 4 |
| CHEM 251 & CHEM 253 | Organic Chemistry I and Organic Chemistry I Laboratory | 4 |

Physics
| PHYS 141 | Elementary General Physics 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
Written Communication (ACE 1)
Select one of the following: 3
| ENGL 150 | Writing and Inquiry |
| ENGL 151 | Writing and Argument |
| ENGL 254 | Writing and Communities |
| JGEN 120 | Basic Business Communication |
| JGEN 200 | Technical Communication I |
| JGEN 300 | Technical Communication II |

Communications and Interpersonal Skills (ACE 2)
Select one of the following: 3
| ALEC 102 | Interpersonal Skills for Leadership |
| COMM 101 | Communication in the 21st Century |
Forensic Science Core Requirements
FORS 120 Introduction to Forensic Science 2
FORS 120L Introduction to Forensic Science Laboratory 1
FORS 200 Forensic Science Seminar 1
FORS 411 Overview of Forensic Comparative Analysis 3
FORS 485 Current Issues in Forensic Science 3
CRIM 101 Survey of Criminal Justice 3
Credit Hours Subtotal: 13

Option (Biology, Chemistry or CSI) Requirements

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

Forensic Biology Requirements
PHYS 142 Elementary General Physics II 5
CHEM 252 Organic Chemistry II 4
& CHEM 254 and Organic Chemistry II Laboratory 4
BIOS 312 Microbiology 4
& BIOS 314 and Microbiology Laboratory 4
BIOC 321 Elements of Biochemistry 4
& BIOM 321L and Laboratory for Elements of Biochemistry 1
BIOS 205 Genetics, Molecular and Cellular Biology Laboratory 6
& BIOS 206 and General Genetics 6
BIOS 213 Human Physiology 4
& BIOS 213L and Human Physiology Laboratory 2
BIOS 303 Molecular Biology 3
BIOS 443 / MBIO 443 Immunology 3

FORS 401 Forensic Biology 4
& FORS 401L and Forensic Biology Laboratory 4
FORS 403 Advanced Forensic Photography 1
FORS 404 Bloodstains as Evidence 1
FORS 410 Advanced Forensic Methods 3
Select one of the following: 3-4
BIOS 412 Human Genetics
BIOS 420 / MBIO 420 Molecular Genetics
BIOS 477 Bioinformatics and Molecular Evolution
FORS 445 / NRES 445 Human Remains in Forensic Science
FORS 446 / NRES 446 Pollen Analysis for Behavioral, Biological and Forensic Science
FORS 498 Special Topics in Forensic Science
Any 300-level or above AGRO, BIOS, BIOM, CHEM, ENTO, PHYS, or MATH 107 3-4
Select 7-8 credits of professional electives 7-8
Credit Hours Subtotal: 53

Total Credit Hours 53

1 Students interested in graduate or professional schools including medicine and pharmacy should substitute: BIOM 431 Structure and Metabolism and BIOM 432 Metabolism and Biological Information.
2 Students may substitute: BIOS 214 Human Anatomy.

Crime Scene Investigation Option
The Crime Scene Investigation Option prepares students for a career in law enforcement and investigation. This option emphasizes broad understandings 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
PHYS 142 Elementary General Physics II 5
CHEM 252 Organic Chemistry II 4
& CHEM 254 and Organic Chemistry II Laboratory 4
BIOS 312 Microbiology 4
& BIOS 314 and Microbiology Laboratory 4
ENTO 115 / BIOS 115 Insect Biology 3
ENTO 116 / BIOS 116 Insect Identification 1
AGRO 215 / HORT 215 / TLMT 215 Genetics 4
CHEM 221 Elementary Quantitative Analysis 4
FORS 400 Crime Scene Investigation 4
& FORS 400L and Crime Scene Investigation Laboratory 4
FORS 306 Crime Scene Management 1
FORS 307 Forensic DNA for Crime Scene Investigators 3
FORS 403 Advanced Forensic Photography 1
FORS 404 Bloodstains as Evidence 1

Credit Hours Subtotal: 53

Total Credit Hours: 120
FORS 414 / ENTO 414  Forensic Entomology  3
FORS 445 / NRES 445  Human Remains in Forensic Science  4

Select one of the following:  3-4
  FORS 446 / NRES 446  Pollen Analysis for Behavioral, Biological and Forensic Science
  FORS 498  Special Topics in Forensic Science
  FORS 300  Forensic Taphonomy
  Any 300-level or above AGRO, BIOS, BIOC, CHEM, ENTO, PHYS, or MATH 107

Select 7-8 credits of professional electives  7-8
Credit Hours Subtotal:  53
Total Credit Hours  53

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
PHYS 142  Elementary General Physics II  5
CHEM 252  Organic Chemistry II  4
& CHEM 254  and Organic Chemistry II Laboratory
BIOC 321  Elements of Biochemistry  4
& BIOC 321L  and Laboratory for Elements of Biochemistry
BIOS 213  Human Physiology  4
& BIOS 213L  and Human Physiology Laboratory
MATH 107  Calculus II  4
CHEM 221  Elementary Quantitative Analysis  4
CHEM 421  Analytical Chemistry  5
& CHEM 423  and Analytical Chemistry Laboratory
CHEM 471  Physical Chemistry  4
FORS 307  Forensic DNA for Crime Scene Investigators  3
FORS 498  Special Topics in Forensic Science  1-6
Select one of the following:  3-4
  FORS 300  Forensic Taphonomy
  FORS 445  Human Remains in Forensic Science
  FORS 446  Pollen Analysis for Behavioral, Biological and Forensic Science

Or select 3-4 credits from any 300-level or above course in AGRO, BIOS, BIOC, CHEM, ENTO, PHYS, or MATH 208
Select 9-10 credits of professional electives  9-10
Credit Hours Subtotal:  53
Total Credit Hours  53

Pre-Law Option
The Pre-Law Option allows students to participate in the UNL College of Law 3-3 Program, in which they receive their bachelor’s degree in forensic science and their Juris Doctor degree in six years rather than the traditional seven. During their first three years, students complete course work in the Forensic Science Program, with classes clustered in either Forensic Biology or CSI. They complete their final year in residence at the College of Law. Students use the credit hours awarded in the first year at the College of Law to complete their undergraduate degree requirements.

Pre-Law: Forensic Biology Requirements (Years 1–3 Forensic Science)
BIOC 321  Elements of Biochemistry  4
& BIOC 321L  and Laboratory for Elements of Biochemistry
BIOS 205  Genetics, Molecular and Cellular Biology  6
& BIOS 206  Laboratory and General Genetics
BIOS 303  Molecular Biology  3
BIOS 312  Microbiology  4
& BIOS 314  and Microbiology Laboratory
FORS 401  Forensic Biology  4
& FORS 401L  and Forensic Biology Laboratory
FORS 404  Bloodstains as Evidence  1
Select 1 credit of professional electives  1
Total Credit Hours  23

Pre-Law: CSI Requirements (Years 1–3 Forensic Science)
ENTO 115 / BIOS 115  Insect Biology  3
ENTO 116 / BIOS 116  Insect Identification  1
AGRO 215 / HORT 215 / TLMT 215  Genetics  4
FORS 300  Forensic Taphonomy  3
FORS 400  Crime Scene Investigation  4
& FORS 400L  and Crime Scene Investigation Laboratory
FORS 404  Bloodstains as Evidence  1
FORS 307  Forensic DNA for Crime Scene Investigators  3
Select one of the following:  4
  CHEM 221  Elementary Quantitative Analysis
  CHEM 252  Organic Chemistry II
  & CHEM 254  and Organic Chemistry II Laboratory
Total Credit Hours  23

Pre-Law: Forensic Biology and CSI Requirements (Year 4 Forensic Science/Year 1 College of Law)
LAW 503  Torts I  4
LAW 505  Property I  6
& LAW 506  and Property II
LAW 501  Contracts I  6
& LAW 502  and Contracts II
LAW 516  Civil Procedure I  6
& LAW 517  and Civil Procedure II
LAW 508  Criminal Law  3
LAW 513  Legal Research and Writing  6
& LAW 514  and Legal Research and Writing
FORS 120 Introduction to Forensic Science
Notes: Register for FORS 120L to go with FORS 120 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
Format: LEC
Offered: FALL
Prerequisite for: FORS 200; FORS 300; FORS 302; FORS 306; FORS 400; FORS 401; FORS 411; FORS 803, FORS 403; FORS 804, FORS 404

FORS 120L Introduction to Forensic Science Laboratory
Prerequisites: Forensic Science major or by permission
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
Format: LAB
Offered: FALL
Prerequisite for: FORS 200; FORS 300; FORS 302; FORS 306; FORS 400; FORS 401; FORS 411

FORS 200 Forensic Science Seminar
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
Format: LEC
Offered: SPRING
Prerequisite for: FORS 400

FORS 300 Forensic Taphonomy
Prerequisites: LIFE 120/121, CHEM 109/110, and FORS 120/L or instructor permission
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
Format: LEC
Offered: FALL

FORS 302 Principles of Forensic Photography
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
Format: LEC
Offered: FALL
Prerequisite for: FORS 411; FORS 803, FORS 403; FORS 804, FORS 404

FORS 306 Crime Scene Management
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
Format: LEC
Offered: SPRING

FORS 307 Forensic DNA for Crime Scene Investigators
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
Format: LEC
Offered: SUMMER

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
Format: LEC
Offered: FALL
Prerequisite for: FORS 485

FORS 400L Crime Scene Investigation Laboratory
Prerequisites: Parallel FORS 400
Notes: FORS 400L is a lab for credit to go with FORS 400.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB
Offered: FALL
Prerequisite for: FORS 485

FORS 401 Forensic Biology
Prerequisites: LIFE 120/L and LIFE 121/L, BIOS 205, BIOS 206, 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
Format: LEC
Offered: SPRING
Prerequisite for: FORS 410; FORS 485
FORS 401L Forensic Biology Laboratory
Prerequisites: Parallel FORS 401
Notes: FORS 401L is a lab for credit to go with FORS 401.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB
Offered: SPRING
Prerequisite for: FORS 410; FORS 485

FORS 403 Advanced Forensic Photography
Crosslisted with: FORS 803
Prerequisites: FORS 120/L or FORS 302.
Description: Advanced concepts, techniques, analysis, and interpretation of photographic evidence.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC
Offered: SPRING
Prerequisite for: FORS 411; FORS 804, FORS 404

FORS 404 Bloodstains as Evidence
Crosslisted with: FORS 804
Prerequisites: FORS 120/L, FORS 302 or FORS 403/803.
Description: Documentation and interpretation of geometric bloodstains, calculating probable origins, and collecting blood as a source of DNA evidence.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC
Offered: SPRING

FORS 410 Advanced Forensic DNA Methods
Prerequisites: FORS401/401L
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
Format: LEC
Offered: FALL

FORS 411 Overview of Forensic Comparative Analysis
Prerequisites: FORS 120/L; LIFE 120/L; FORS 302 or FORS 403; CHEM 109; and STAT 218.
Notes: This course is offered online the first 8-week session each year. Students will need access to a computer, a six-inch metric scale marked in millimeters, a digital camera and an inexpensive Vanier caliper.
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
Format: LAB
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
Format: LEC

FORS 445 Human Remains in Forensic Science
Crosslisted with: FORS 845, NRES 445, NRES 845
Prerequisites: LIFE 120/L and LIFE 121/L, CHEM 109, CHEM 110, and FORS 120/L or instructor permission.
Description: Forensic anthropology within the broader context of forensic sciences and physical anthropology. Decomposition and bone modification through artificial means. Determination of individual identity, diet, chronic pathology and cause of death from human remains.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC
Offered: FALL

FORS 446 Pollen Analysis for Behavioral, Biological and Forensic Science
Crosslisted with: FORS 846, NRES 446, NRES 846
Prerequisites: BIOS 109 and 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
Format: LEC
Offered: FALL
**FORS 485 Current Issues in Forensic Science**  
**Prerequisites:** FORS 400/L or FORS 401/L and FORS 408, or instructor permission.  
**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  
**Format:** LEC  
**Offered:** SPRING  
**ACE:** ACE 10 Integrated Product

**FORS 495 Internship in Forensic Science**  
**Prerequisites:** Sophomore standing and permission.  
**Notes:** FORS 495 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  
**Format:** FLD

**FORS 496 Independent Study in Forensic Science**  
**Prerequisites:** Sophomore standing and permission.  
**Notes:** FORS 496 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  
**Format:** IND

**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  
**Format:** LEC

**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  
**Format:** IND

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**Forensic Science - Forensic Biology**  
Icon Legend: Critical

**16 HR TERM 1**

**College Course**

- **complete SCIL 101**
  - **3hr**
  
SCIL 101 becomes critical to your success in the major if not completed by the fourth term of enrollment.

**Introductory Course**

- **complete 2 from FORS 120, FORS 120, FORS 120L**
  - **4hr**
  
FORS 120 and 120L become critical to your success in the major if not completed by the fourth term of enrollment.

**ACE 3 Math Stat**

- **complete MATH 106**
  - **5hr**
  
Completion of a MATH course becomes critical to your success in the major if not completed by the second term of enrollment.

**15 HR TERM 2**

**College Course**

- **complete CHEM 110**
  - **4hr**
  
**Forensic Science Core**

- **complete CRIM 101, FORS 200**
  - **4hr**
  
**ACE 4 Life Sci**

- **complete LIFE 120, LIFE 120L**

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**PLEASE NOTE**

This document represents a sample 4-year plan for degree completion with this major. Actual course selection and sequence may vary and should be discussed individually with your college or department academic advisor. Advisors also can help you plan other experiences to enrich your undergraduate education such as internships, education abroad, undergraduate research, learning communities, and service learning and community-based learning.
15 HR TERM 3

Nat Sci-Organic Chem
complete CHEM 251, CHEM 253

ACE 3 Math Stat
complete STAT 218

ACE 4 Life Sci
complete LIFE 121, LIFE 121L

ACE 2 Comm Skills
complete JGEN 300

Electives
recommend 1 or more courses

Complete a Professional Elective course.

16 HR TERM 5

Biochemistry
complete BIOC 321, BIOC 321L

ACE 4 Nat Sci-Phys
complete PHYS 141

ACE 7 Arts
complete 1 from ACE7

Forensic Science Courses
complete FORS 404

1 hr

Molecular Bio/Immunology
complete BIOS 303

1 hr

15 HR TERM 6

Forensic Science Courses
complete FORS 401, FORS 401L

Gen Physics
complete PHYS 142

ACE 8 Economics
Forensic Science

complete ECON 200

3hr

Forensic Science Core

complete FORS 411

14 HR TERM 7

Advanced Genetics

complete BIOS 412

3hr

Molecular Bio/Immunology

complete BIOS 443

Forensic Science Courses

complete FORS 404, FORS 410

4hr

ACE 9 Global/Human Divers

complete 1 from ACE9

3hr

Electives

recommend 1 or more courses

3hr

Complete two Professional Elective courses.

Graduation Requirements

1. Performance Measure: 2.00 GPA required for graduation.
2. ***Total Credits Applying Toward 120 Total Hours***

Forensic Science - Forensic Chemistry

Icon Legend: Critical

15 HR TERM 1

Introductory Course

complete either FORS 120 or FORS 120L

3hr

C

FORS 120 becomes critical to your success in the major if not completed by the fourth term of enrollment.

ACE 3 Math Stat

complete MATH 106

3hr

5hr

Completion of a MATH course becomes critical to your success in the major if not completed by the second term of enrollment.

ACE 4 Nat Sci-Chem

complete CHEM 109

1hr

4hr

C

CHEM 109 becomes critical to your success in the major if not completed by the fourth term of enrollment.

College Course

complete SCIL 101

3hr

4hr

SCIL 101 becomes critical to your success in the major if not completed by the fourth term of enrollment.

16 HR TERM 2

Forensic Science Core

complete FORS 485
complete FORS 200

1hr

ACE 4 Life Sci
complete LIFE 120, LIFE 120L

4hr

ACE 4 Nat Sci-Chem
complete CHEM 110

4hr

ACE 1 Written
complete JGEN 200

3hr

Calculus
complete MATH 107


14 HR TERM 3

ACE 4 Life Sci
complete LIFE 121, LIFE 121L

4hr

Nat Sci-Organic Chem
complete CHEM 251, CHEM 253

4hr

FORS Elective
complete MATH 208

3hr

ACE 2 Comm Skills
complete JGEN 300


15 HR TERM 4

Electives
recommend 1 or more courses

1hr

FORS 403 is recommended for this term.

Organic Chemistry
complete CHEM 252, CHEM 254

4hr

Biochemistry
complete BIOC 321, BIOC 321L

4hr

Forensic Science Core
complete CRIM 101

3hr

ACE 3 Math Stat
complete STAT 218

3hr

3 HR TERM 5

Forensic Science Courses
complete FORS 307

3hr

15 HR TERM 6

Chemistry
complete CHEM 221

4hr

ACE 4 Nat Sci-Phys
complete PHYS 141

5hr

ACE 7 Arts
complete 1 from ACE7

3hr

ACE 8 Economics
complete ECON 200

3hr

15 HR TERM 7
Forensic Science

Forensic Science Core
complete FORS 411

Gen Physics
complete PHYS 142

Biology
complete BIOS 213, BIOS 213L

ACE 9 Global/Human Divers
complete 1 from ACE9

13 HR TERM 8

Forensic Science Courses
complete FORS 498

Electives
recommend 1 or more courses

Recommended to complete 3 hours of Professional Electives.

13 HR TERM 9

Forensic Science Core
complete FORS 485

Chemistry
complete CHEM 471

ACE 5 Humanities
complete 1 from ACE5

Electives
recommend 1 or more courses

Recommended to complete 5 hours of Professional Electives.

16 HR TERM 1

College Course
complete SCIL 101

SCIL 101 becomes critical to your success in the major if not completed by the fourth term of enrollment.

ACE 4 Nat Sci-Chem
complete CHEM 109

CHEM 109 becomes critical to your success in the major if not completed by the fourth term of enrollment.

Introductory Course
complete FORS 120, FORS 120L

FORS 120 and 120L become critical to your success in the major if not completed by the fourth term of enrollment.

ACE 3 Math Stat
complete MATH 106

Completion of a MATH course becomes critical to your success in the major if not completed by the second term of enrollment.

15 HR TERM 2

Forensic Science - Crime Scene Investigation

Icon Legend: Critical

Graduation Requirements
1. Performance Measure: 2.00 GPA required for graduation.
2. ***Total Credits Applying Toward 120 Total Hours***
ACE 4 Nat Sci-Chem
complete CHEM 110

Forensic Science Core
complete CRIM 101, FORS 200

ACE 4 Life Sci
complete LIFE 120, LIFE 120L

ACE 1 Written
complete JGEN 200

14 HR TERM 3
Nat Sci-Organic Chem
complete CHEM 251, CHEM 253

ACE 4 Life Sci
complete LIFE 121, LIFE 121L

ACE 5 Humanities
complete 1 from ACE5

ACE 2 Comm Skills
complete JGEN 300

15 HR TERM 4
Organic Chemistry
complete CHEM 252, CHEM 254

Crime Scene Investigation
complete ENTO 115, ENTO 116

Forensic Science Courses
complete FORS 403

ACE 3 Math Stat
complete STAT 218

ACE 7 Arts
complete 1 from ACE7

15 HR TERM 5
ACE 8 Economics
complete ECON 200

ACE 4 Nat Sci-Phys
complete PHYS 141

Forensic Science Courses
complete FORS 445

ACE 9 Global/Human Divers
complete 1 from ACE9

16 HR TERM 6
Crime Scene Investigation
complete AGRO 215

Forensic Science Courses
complete FORS 306, FORS 414
complete FORS 411

15 HR TERM 1

College Course
complete SCIL 101

3hr

SCIL 101 becomes critical to your success in the major if not completed by the fourth term of enrollment.

ACE 4 Nat Sci-Chem
complete CHEM 109

5hr

CHEM 109 becomes critical to your success in the major if not completed by the fourth term of enrollment.

ACE 3 Math Stat
complete MATH 106

5hr

Completion of a MATH course becomes critical to your success in the major if not completed by the second term of enrollment.

Introductory Course
complete FORS 120, FORS 120L

4hr

3hr

FORS 120 and 120L become critical to your success in the major if not completed by the fourth term of enrollment.

15 HR TERM 2

Forensic Science Core
complete CRIM 101, FORS 200

4hr

ACE 4 Life Sci
complete LIFE 120, LIFE 120L

4hr
ACE 1 Written
complete JGEN 200

ACE 4 Nat Sci-Chem
complete CHEM 110

14 HR TERM 3
Nat Sci-Organic Chem
complete CHEM 251, CHEM 253

ACE 2 Comm Skills
complete JGEN 300

ACE 4 Life Sci
complete LIFE 121, LIFE 121L

ACE 3 Math Stat
complete STAT 218

14 HR TERM 4
Forensic Science Core
complete FORS 411

ACE 5 Humanities
complete 1 from ACE5

Crime Scene Investigation
complete CHEM 252, CHEM 254, ENTO 115, ENTO 116

3 HR TERM 5
Crime Scene Investigation
complete FORS 307

16 HR TERM 6
3hr

Crime Scene Investigation
complete FORS 300, FORS 400, FORS 400L, FORS 404

ACE 4 Nat Sci-Phys
complete PHYS 141

ACE 7 Arts
complete 1 from ACE7

14 HR TERM 7
3hr

Crime Scene Investigation
complete AGRO 215

Forensic Science Core
complete FORS 485

ACE 9 Global/Human Divers
complete 1 from ACE9

ACE 8 Economics
complete ECON 200

3 hr

Graduation Requirements
1. Performance Measure: 2.00 GPA required for graduation.
2. ***Total Credits Applying Toward 120 Total Hours***

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

Jobs of Recent Graduates
- Military Intelligence, United States Air Force - Goodfellow AFB TX
- Bioanalytical Analyst, Celerion - Lincoln NE
- Case Inventory Tech, Ron Smith and Associates - Lorton VA
- DNA Lab Tech, GeneSeek - Lincoln NE
• Police Officer, City of Lincoln - LINCOLN NE
• research assistant, ku medical center - kansas city KS
• Registered Nurse - Pediatrics, Mary Lanning Healthcare - Hastings NE
• Corps Member - Science Teacher, Teach for America - Oklahoma City OK
• Lab Technician, Syngenta - Omaha NE
• Research Intern, Institute of Environmental Science and Research - Auckland, New Zealand

Internships
• Intern, FBI - Lincoln NE
• Research Intern, Institute of Environmental Science & Research - Auckland, New Zealand ZZ
• Student Trainee in Biological Sciences, US Department of Agriculture - Lincoln NE
• Intern, Criminal Investigation Division - Washington DC
• Drug Lab Intern, Honolulu Police Dept Scientific Investigation - Honolulu HI
• Troop B Intern, Nebraska State Patrol - Norfolk NE
• Insect Trait Development Research Intern, DuPont Pioneer - Johnston IA
• Intern, Physicians Lab -
• Crime Laboratory Intern, Omaha Police Department - Omaha NE
• Law Enforcement Intern, Cook County Sheriff - Cook County IL

Grad Schools
• M.S. Crime Scene Investigation, George Washington University - Washington D.C. DC
• M.S. Forensic Science, University of California - Davis - Davis CA
• M.D., University of Nebraska Medical Center - Omaha NE
• M.A. Secondary Science Education, University of Nebraska-Lincoln - Lincoln NE
• J.D., Southern Methodist University - Dallas TX
• M.S. 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
• M.S. Applied Science (Forensic Biochemistry), University of Nebraska-Lincoln - Lincoln NE
• Master of Forensic Science, Saint Joseph's College Indiana - Rensselaer IN