

# INTEGRATED SCIENCE

## Description

The bachelor of science in integrated science offers students the opportunity to design their own degree program. As an alternative to traditional majors, this individualized program of study allows students to pursue their academic and professional goals in focus areas not available within existing departmental curricula. With the mentoring of a faculty advisory committee, students focus their degree and select courses across multiple focus areas to create an individualized and interdisciplinary program of study. Specific degree requirements and focus areas are defined and approved by the student's faculty advisory committee. Additional information is available in the CASNR Dean's Office (103 Agricultural Hall, East Campus).

## 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 CASNR<sup>1</sup> (>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.

<sup>1</sup> Includes courses taught by CASNR faculty through interdisciplinary prefixes (e.g., LIFE, MBIQ, 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](http://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 integrated science will be able to:

1. Demonstrate a broad range of knowledge and understanding of defining concepts from two or more focus areas.
2. Apply interdisciplinary approaches to critically analyze key issues related to food, energy and water.
3. Communicate complex ideas through writings and oral presentations and develop sound arguments based on technical knowledge.
4. Integrate the different areas of study in their interdisciplinary degree program to examine questions, problems, or issues raised in their interdisciplinary field through a senior capstone project.

## Major Requirements

### Core Requirements

#### College Integrative Course

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

#### Written Communication (ACE 1)

Select one of the following: 3

ENGL 150	Writing and Inquiry
ENGL 151	Writing for Change
ENGL 254	Writing and Communities
JGEN 120	Basic Business Communication
JGEN 200	Technical Communication I
JGEN 300	Technical Communication II

Credit Hours Subtotal: 3

#### Oral Communication (ACE 2)

Select one of the following: 3

ALEC 102	Interpersonal Skills for Leadership
COMM 101	Communication in the 21st Century
COMM 209	Public Speaking
COMM 283	Interpersonal Communication
COMM 286	Business and Professional Communication
JGEN 300	Technical Communication II

Credit Hours Subtotal: 3

#### Mathematics and Statistics (ACE 3)

Select from the following: 5

MATH 102	Trigonometry
MATH 104	Applied Calculus

MATH 106	Calculus I	
STAT 218	Introduction to Statistics	
Credit Hours Subtotal:		5
<b>Natural Sciences (ACE 4)</b>		
Select one course from two of the following three areas:		8
Select from CASNR Approved Life Sciences:		
PLAS 131	Plant Science	
& PLAS 132	and Agronomic Plant Science Laboratory	
PLAS 131	Plant Science	
& PLAS 134	and Plant Sciences Laboratory	
BIOS 101	General Biology	
& 101L	and General Biology Laboratory	
LIFE 120	Fundamentals of Biology I	
& 120L	and Fundamentals of Biology I laboratory	
Select from the following:		
CHEM 105A	Chemistry in Context I	
& CHEM 105L	and Chemistry in Context I Laboratory	
CHEM 109A	General Chemistry I	
& CHEM 109L	and General Chemistry I Laboratory	
Select from the following:		
AGST 109	Physical Principles in Agriculture and Life Sciences	
PHYS 141	Physics for Life Sciences I	
PHYS 151	Elements of Physics	
PHYS 211	General Physics I	
Credit Hours Subtotal:		8
<b>Economics (ACE 6)</b>		
Select one of the following:		3
AECN 141	Introduction to the Economics of Agriculture	
ECON 200	Economic Essentials and Issues	
ECON 211	Principles of Macroeconomics	
ECON 212	Principles of Microeconomics	
Credit Hours Subtotal:		3
<b>ACE 10 Capstone</b>		
AGRI 485	Investigations in Applied Science	3
Credit Hours Subtotal:		3
<b>ACE Requirement</b>		
Select one course each from ACE outcomes 5,7, 8 and 9		12
Credit Hours Subtotal:		12

## Degree Requirements

1. The 120 credit hour minimum requirement (30 hours must be at the 300 level or above).
2. General education requirements (ACE) and college core must also be fulfilled. Students should include AGRI 485 Investigations in Applied Science as their ACE 10 course requirement. The senior project provides students with the opportunity to integrate what they have learned in their degree program and demonstrate their ability to formulate an original interdisciplinary project appropriate to their program of study and career goals.
3. Complete at least 48 hours from more than one core focus area. A minimum of 15 hours with at least 6 hours at the 300 level or above is required for a core focus area. The core focus areas are defined and

approved by the student's faculty advisory committee. It is strongly encouraged that students complete a focus area outside of CASNR.

4. Complete at least half of the 48 hours of core focus area hours from CASNR.
5. Complete at least 9 hours of coursework in international studies. Select from the International Requirements course option list (<https://catalog.unl.edu/undergraduate/agricultural-sciences-natural-resources/economics/#majortext>) outlined on the Agricultural Economics page.
6. Complete at least one minor or certificate (may be outside of CASNR and included in the 48 hours).
7. Students pursuing an individualized degree program can incorporate experiential learning and off-campus study as part of their degree program (e.g., internships, research experience, education abroad, and domestic experience). Students must complete at least one internship or research experience as part of their program of study. Students can receive college approval to complete more than 6 hours of off-campus study and/or experiential learning, but no more than 12 hours of off-campus study and/or experiential learning can count toward the degree program.
8. A maximum of 6 hours of Pass/No Pass (P/N) credit is allowed in courses taken as part of the 48 hours of core focus areas.

## Additional Major Requirements Process for Student

1. Explore and articulate interests, strengths, and abilities. Establish career goals. Research career opportunities and employers of interest. Consult with a faculty member and/or professional advisor to determine if an existing degree program satisfies your personal and professional interests.
2. Think about the academic skills and background needed for your career choice. Consider future education plans, including graduate school and professional programs.
3. Identify a faculty member to help you design your program of study and develop an advisory committee. The advisory committee will be comprised of three faculty members, with one of the faculty members designated as the major advisor. The major advisor must be from one of the core focus areas and affiliated with CASNR. One of the advisory committee members can be an industry professional.
4. Develop a proposal that includes the degree program focus, what you hope to accomplish by completing this program, how your individualized program of study connects different disciplines, and the relationship between your career goals and your program of study. Also include the proposed focus areas, a list of all courses taken or to be taken as part of your degree along with a semester-by-semester plan of study. The selection of courses must align with your personal, academic, and professional interests and goals.
5. Schedule a meeting with your faculty advisory committee to present your proposal. Once the faculty advisory committee approves the core focus areas and program of study, the Advisory Committee Approval (ACA) form should be completed. The ACA form is available through the CASNR Dean's Office.
6. Submit the proposal and accompanying ACA form to the CASNR Dean's Office for consideration by the CASNR Curriculum Committee. The CASNR Curriculum Committee must approve the degree program before the student completes 60 of the 120 applicable hours of



the degree. Transfer students interested in this opportunity should contact the CASNR Dean's Office.

7. Students pursuing the individualized program of study are required to have a meeting with their faculty advisory committee at the start of each semester (must be completed during the first week of the semester). The purpose of this meeting is to review the program of study and progress towards degree completion, along with discussing the student's professional development and career plans.
8. Any changes to the approved program of study must be recommended by the faculty advisory committee and approved by the CASNR Dean's Office.