PRE-VETERINARY MEDICINE

Description

The Nebraska Pre-Veterinary Medicine program (PVET) is designed for students who want to become veterinarians. The Doctor of Veterinary Medicine (DVM) degree, or its equivalent, must be earned to become a veterinarian. Students wishing to earn the DVM degree must first successfully complete the undergraduate Pre-Veterinary Medicine program to qualify for admission to a veterinary school that awards the DVM degree.

The Nebraska PVET program can help students qualify for admission to any of the American Veterinary Medical Association Council on Education (AVMA-COE) accredited veterinary schools which offer the DVM degree or its equivalent. Students completing our PVET program do not earn baccalaureate degrees nor are they guaranteed admission to any veterinary school.

There are three general PVET requirements for admission to veterinary schools:

- academic
- career exploration
- leadership development

Applicants are assessed in each of those areas during the application process.

Academic requirements include specific undergraduate courses that must be successfully completed, and course and cumulative grade point averages (GPAs). The specific courses included in a PVET program are specified by each of the veterinary schools. There is not a standard curriculum, so each veterinary school publishes its PVET course requirements. The undergraduate courses included in our PVET program are those for the Professional Program in Veterinary Medicine (PPVM), however, our PVET program can be modified so that a student can qualify academically for admission to any AVMA-COE accredited veterinary school. The PVET course requirements for other veterinary schools may be found on those schools’ websites. A list of AVMA-accredited veterinary schools may be obtained on the AVMA website at https://www.avma.org/ProfessionalDevelopment/Education/Accreditation/COLLEGES/Documents/colleges_accredited.pdf.

Veterinary schools require that their applicants attain a minimum cumulative GPA to be considered for admission. The PPVM requires a cumulative GPA of at least a 2.50 for application consideration. Minimum cumulative GPA requirements for other veterinary schools may be found on their respective websites.

The veterinary medical career exploration requirement is intended to help PVET students learn what veterinarians do professionally and that is usually done by working in a veterinary clinic in either a paid or unpaid status. Students may also explore other aspects of veterinary medicine, including government service, academic or industrial research, or military service. It is recommended that students develop a professional relationship with a veterinarian so that veterinarian may write a good letter of recommendation in support of that student's application to veterinary school.

As stated previously, completion of the PVET program does not earn the student a baccalaureate degree. We recommend that students wishing to become veterinarians start as a PVET major so they can take every advantage of our PVET advising program. Our PVET advisors will help their advisees reach their academic and career goals. We strongly recommend that PVET students declare a degree-granting major, such as Veterinary Science, Animal Science, Fisheries & Wildlife, or Biochemistry, and pursue a baccalaureate degree while completing the PVET requirements. A particular baccalaureate degree does not provide any advantage over other majors for admission to a veterinary school. The student may choose any baccalaureate program that is of interest to the student.

Expect to spend 2-3 years completing the PVET program. If the student is not prepared to start the science-intensive PVET program, its completion will take longer. Adequate preparation includes math proficiency, as indicated by the Nebraska Math Proficiency Examination (MPE). Students who do not place into at least MATH 102 Trigonometry may take longer to complete the PVET program and baccalaureate degree.

Additional requirements for the pre-vet program:

- Pass/No Pass credits are not accepted. Pre-Vet courses must be taken for a grade, unless the course is only offered Pass/No Pass.
- A grade of C or better is necessary to fulfill the pre-vet requirement. If a course is repeated to obtain a higher grade or to earn a grade of C or better, some professional programs may consider the average of all grades earned for that course. Other programs may consider the highest grade or the most recent grade. Check the policy of each veterinary school to which application is to be made.
- The acceptability of AP, CLEP, or IB earned credits varies by veterinary school. It is important for each student to check the policies of the veterinary school to which application is to be made.

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 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 (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.

**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.

**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.

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 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 CASNR1 (>299) including the appropriate ACE 10 degree requirement or an approved ACE 10 substitution offered through another UNL 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 UNL and participate in prior-approved education abroad programs. UNL open enrollment and summer independent study courses count toward residence.

\[ ^1 \text{Includes courses taught by CASNR faculty through interdisciplinary prefixes (e.g., LIFE, MBIO, ENVIR, SCIL, EAEP, HRTM, ENSC) and CASNR crosslisted courses taught by non-CASNR faculty.} \]

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 pre-veterinary medicine will be able to:

1. Qualify academically for admission to the Professional Program in Veterinary Medicine (PPVM), a joint program between UNL and the Iowa State University College of Veterinary Medicine.

2. Qualify academically for admission to any of the AVMA-accredited colleges or schools of veterinary medicine. (Add required pre-veterinary courses for the other college or school.)

Major Requirements
PPVM Pre-Veterinary Medicine Core
What follows fulfills the PVET requirements for the Professional Program in Veterinary Medicine (PPVM), a cooperative program between the University of Nebraska–Lincoln and Iowa State University. Criteria for admission to that program may be found on the PPVM website at http://vetmed.unl.edu/prospectivestudents. This program may be modified so that a student may qualify academically for admission to any American Veterinary Medical Association Council on Education-accredited veterinary school. Students planning to attend other veterinary schools must check with those schools to determine the differences between the other veterinary school and the PPVM PVET requirements.

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

Veterinary Science
VBMS 101 Success in Veterinary Science 1
Credit Hours Subtotal: 1

Natural Science Courses
Life Sciences 1
LIFE 120 Fundamentals of Biology I 4
& LIFE 120L and Fundamentals of Biology I laboratory (ACE 4)

Genetics
AGRO 215 Genetics 4

Anatomy and Physiology
Select one option from the following: 4-8
Option 1:
- ASCI 340 Animal Physiological Systems
- BIOS 213 Human Physiology
- BIOS 213L

Option 2:
- Select one of the following:
  - BIOS 214 Human Anatomy
  - VBMS 307 Introduction to Veterinary Anatomy

Chemistry
CHEM 109 General Chemistry I (ACE 4) 4
CHEM 110 General Chemistry II (ACE 4) 4
CHEM 251 Organic Chemistry I 3
CHEM 252 Organic Chemistry II 3
CHEM 253 Organic Chemistry I Laboratory 1
or CHEM 254 Organic Chemistry II Laboratory

Physics
Select one of the following: 2
- PHYS 141 Elementary General Physics I (ACE 4)
- PHYS 211 / PHYS 211H & PHYS 221 General Physics I and General Physics Laboratory I

Biological Chemistry
Select one of the following: 3
- BIOC 321 Elements of Biochemistry
- BIOC 431 / BIOS 431 / CHEM 431 Structure and Metabolism

Credit Hours Subtotal: 39

Mathematics and Statistics
Select five credits of the following: 3
- MATH 102 Trigonometry
- MATH 103 College Algebra and Trigonometry (only 2 credit hours apply)
- MATH 104 Applied Calculus
- MATH 106 Calculus I
- STAT 218 Introduction to Statistics

Credit Hours Subtotal: 5

Communications
Written Communication (ACE 1)
Select two of the following: 6
- ENGL 150 Writing and Inquiry
- ENGL 150H Honors Writing: Writing and Inquiry
- ENGL 151 Writing and Argument
- ENGL 151H Honors Writing: Writing and Argument
- ENGL 254 Writing and Communities
- ENGL 254H Honors Writing: Writing and Communities
C- and D Grades
Most veterinary schools require a grade of at least a C in each PVET course. Exact PVET course grade requirements for admission should be determined for each veterinary school to which application is to be made.

GPA Requirements
A minimum cumulative GPA of 2.50 is generally required for application to a veterinary school. The exact GPA requirement for admission should be obtained for each veterinary school to which application is to be made.

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.

13 HR TERM 1
College Course
complete SCIL 101

Vernon Science
complete VBMS 101

ACE 4 Life Science
complete LIFE 120, LIFE 120L

ACE 3 Math/Statistics
complete MATH 102

Completion of either the CHEM Sequence or LIFE Sequence becomes critical to your success in the major if not completed by the second term of enrollment.

Completion of at least 2 credit hours of MATH becomes critical to your success in the major if not completed by the fourth term of enrollment.

Additional Major Requirements

Grade Rules
Pass/No Pass
All courses taken to meet PVET requirements must be taken for a letter grade, unless the course is offered only Pass/No Pass.
13 HR TERM 2

ACE 4 Life Science

complete LIFE 121, LIFE 121L

Completion of either the CHEM Sequence or LIFE Sequence becomes critical to your success in the major if not completed by the second term of enrollment.

ACE 1 Written

complete 1 from ENGL 150, ENGL 151, ENGL 254, JGEN 120, JGEN 200, JGEN 300

ACE 2 Oral Comm

complete 1 from ALEC 102, COMM 101, COMM 109, COMM 209, COMM 215, COMM 283, COMM 286, JGEN 300, MRKT 257, NRES 301, TMFD 121

ACE 5 Humanities

complete 1 from ACE5

Complete an ACE 5, 7, 8, or 9 requirement this term.

14 HR TERM 3

ACE 4 Chemistry

complete CHEM 109

Completion of the remaining CHEM Sequence or LIFE Sequence becomes critical to your success in the major if not completed by the third term of enrollment.

ACE 3 Math/Statistics

complete STAT 218

ACE 6 Economics

complete 1 from AECN 141, ECON 200, ECON 211, ECON 212

Genetics

complete AGRO 215

Complete one Physiology course and one Anatomy course.

14 HR TERM 4

ACE 4 Chemistry

complete CHEM 110

Completion of the remaining CHEM Sequence or LIFE Sequence becomes critical to your success in the major if not completed by the fourth term of enrollment.

Opt 2 Anatomy/Physiology

complete 2 from BIOS 213L, ASCI 340, BIOS 213, BIOS 213L, BIOS 214, VBMS 307

Complete one Physiology course and one Anatomy course.

ACE 7 Arts

complete 1 from ACE7

Complete an ACE 5, 7, 8, or 9 requirement this term.

Milestones

1. You must declare a degree-granting undergraduate major by this term.

15 HR TERM 5

ACE 4 Physics
complete PHYS 141

5hr
C

Organic Chemistry
complete either CHEM 251 or CHEM 253

4hr
C

ACE 8 Ethical Principles
complete 1 from ACE8

3hr
C

Complete an ACE 5, 7, 8, or 9 requirement this term.

Electives
complete Any Course

3hr

15 HR TERM 6

Organic Chemistry
complete CHEM 252

3hr
C

Biochemistry
complete BIOC321#

3hr
C

ACE 9 Global/Human Divers
complete 1 from ACE9

3hr
C

Complete an ACE 5, 7, 8, or 9 requirement this term.

Electives
complete Any Course

6hr