# University of Nebraska-Lincoln Professional Program in Veterinary Medicine

# **REQUIRED UNDERGRADUATE COURSEWORK**

Subject to change

Applicants must complete the following prerequisite coursework. Questions regarding these prerequisites should be directed to the Professional Program in Veterinary Medicine office (ppvm@unl.edu or 402-472-7306). Visit <u>https://vetmed.unl.edu/required-undergraduate-coursework</u> for more information.

Course and Title	Semester Credit Hours Required	UNL Course Equivalent**
<b>General Chemistry with lab*</b> Two semesters of general chemistry for biological science majors. Only one semester of lab required.	7 credits	CHEM 109A/109L and CHEM 110A
Organic Chemistry with lab* Organic chemistry for biological science majors.	4 credits	CHEM 251 and CHEM 253
<b>Biochemistry*</b> Upper-level (junior/senior) course with organic chemistry as a prerequisite. No lab required.	3 credits	BIOC 401 or BIOC 431
<b>General Cellular Biology with lab*</b> A cellular biology course for biological science majors. A one-year series (i.e., two semesters) that addressed organismal and cellular biology will substitute. A Bachelor's degree in biology also fulfills this requirement. If an appropriate course is taken, the grade in this course will be used in GPA calculations even if a biology degree is earned. Microbiology will not fulfill this requirement.	4 credits	LIFE 120/120L
<b>General Organismal Biology with lab*</b> An organismal biology course for biological science majors. A one-year series (i.e., two semesters) that addressed organismal and cellular biology will substitute. A Bachelor's degree in biology also fulfills this requirement. If an appropriate course is taken, the grade in this course will be used in GPA calculations even if a biology degree is earned.	4 credits	LIFE 121/121L
<b>Genetics*</b> A course in Mendelian genetics, molecular genetics, or animal breeding. No lab required. A general genetics course if preferred, but animal breeding/livestock improvement courses will be accepted.	3 credits	BIOS 206 or PLAS 215
Anatomy and/or Physiology* A course in mammalian anatomy and/or physiology. No lab required. A single course in anatomy or physiology is recommended over a one-semester anatomy/physiology combined course. If you take an anatomy/physiology I course, you must also take anatomy/physiology II to fulfill the requirement even though the number of credit hours will exceed the requirement. Upper-level comparative anatomy or physiology or upper- level vertebrate anatomy or physiology WILL fulfill this requirement. Avian and marine mammal anatomy and/or physiology WILL NOT fulfill this requirement.	3 credits	ASCI 340 or BIOS 213 or BIOS 214 or VBMS 407
<b>Physics with lab*</b> Physics for biological science majors; should include mechanics, fluids, heat and thermodynamics, vibrations, waves, and sound.	4 credits	PHYS 141

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<ul> <li>NEW for 2024-2025 cycle (entering Fall 2025)</li> <li>Upper-level Biomedical Sciences*</li> <li>Upper-level biomedical science courses (junior-level [300-level or higher]) undergraduate or higher-level courses.</li> <li>Suggested topics include anatomy or physiology beyond the prerequisite<sup>†</sup>, bacteriology, biochemistry beyond the prerequisite, cancer biology, cellular/molecular biology, embryology, endocrinology, epidemiology, histology, genetics beyond the prerequisite, immunology, infectious disease, microbiology, neurology, nutrition/metabolism, parasitology, pharmacology, reproductive physiology, toxicology, or virology.</li> <li><i>Courses MUST have a predominant biomedical science focus. Not all upper-level science courses meet this requirement, even those that are rigorous and cover topics that are otherwise relevant to veterinary medicine.</i> This includes courses that focus on animal behavior, animal disease prevention/management, animal welfare, artificial insemination, biometry, companion animal management, conservation biology, ecology, environmental physiology, laboratory animal management, livestock (dairy/beef/swine/etc.) systems/management, and veterinary laboratory principles.</li> </ul>	9 credits	ASCI 340 <sup>†</sup> , 341, 421, 442, 443 or 444 or BIOS 312, 326, 385, 402, 420, 432, 440, 442, 443 or 487 or VBMS 407 <sup>†</sup> , 408, 410 or 441
<b>English Composition</b> Two semesters of composition or writing emphasis courses. May include business or technical writing. A Bachelor's degree counts for one-half of this requirement.	6 credits	ENGL 150 or 151 or JGEN 120, 200 or 300 or any UNL ACE 1 course
Oral Communications A course in public speaking, interpersonal communication, or group/organizational communication. A speaking emphasis course will also be accepted. A Bachelor's degree will fulfill this requirement.	3 credits	COMM 101, 109, 209, 283 or 286 or any UNL ACE 2 course
Arts, Humanities, Social Sciences Foreign language instruction and skill courses (music/art/dance lessons) do not fulfill this requirement.	6 credits	
Electives	8 credits	

\*Science Requirement—These courses are used to calculate the Required Science GPA

\*\*Additional courses may fulfill these requirements. To receive verification that a course not specifically listed on the table above can be used to fulfill the requirements, please contact the Professional Program in Veterinary Medicine office at ppvm@unl.edu or 402-472-7306. Requests for verification must include the course institution, name, prefix, number, credit hours, and description. Additional information or documentation (e.g., course syllabus, term completed) may also be requested.