



Pre-Veterinary Medicine and Animal Biosciences

DEPARTMENT OF ANIMAL AND FOOD SCIENCES

The Pre-Veterinary Medicine and Animal Biosciences Major at UD

The PVMAB major focuses on the study of scientific principles required for undergraduate students who are interested in pursuing a career in the fields of veterinary medicine and animal biosciences. The curriculum is designed to meet the admission requirements for many U.S. veterinary schools and to prepare students for graduate degrees in areas related to animal agriculture and biological sciences through course work and laboratory experiences.

Program Highlights

At Delaware, Pre-Veterinary Medicine and Animal Biosciences majors have the unique opportunity to work closely with the department's faculty, which includes leading scholars in fields like nutrition, physiology, immunology, virology, molecular biology, and animal production and management. All major courses and laboratories are taught by faculty, ensuring that students have immediate access to these specialists. Beginning with the first semester, students work hands-on with animals, at the University's on-site, 350-acre teaching and research farm. Many students also participate in internships, study abroad, research, and in the Animal Science Club, for its social, educational, and professional development activities.

For the student desiring to increase the challenges of his or her undergraduate education, the Honors Program, the Dean's Scholar Program and the Degree with Distinction offer unique opportunities to go beyond normal college expectations. Students

in the Honors Program take honors sections of select courses, providing greater depth, discussion and understanding of the subject. Through the Dean's Scholar Program, outstanding students with specific interests not met in a stated major may be freed from regular course requirements to create a curriculum specific to their interests and goals. The Degree with Distinction is awarded to students who complete a research project and a thesis, which is defended before a faculty committee.

Faculty Research Interests

Our faculty are involved in a variety of cutting-edge research projects, with which undergraduates may become involved. For example, we are studying the pathogenesis of avian influenza and tracking its spread from migratory water fowl. Faculty also have been part of a consortium for functional mapping of growth regulating genes in the broiler chicken and leaders in poultry genomics and bioinformatics. In the dairy field, projects include studying the inflammatory process associated with lameness and how clock genes control circadian rhythm. In addition, we are studying ways to alter microbial processes in the rumen and in fermented feeds to improve feed efficiency of dairy cattle.

Facilities and Resources

The College of Agriculture and Natural Resources houses the Pre-Veterinary Medicine and Animal Biosciences major, and its facilities are readily accessible to students. Many of our classes and all of our laboratory sections meet

in Townsend and Worriflow halls, which are part of our teaching and research complex. Our farm, located on site, houses horses, beef cattle, poultry, dairy cows, and sheep, all of which are used in teaching. More than \$2 million of new facilities were added in 2007, including a new equine barn and new milking parlor. Our state-of-the-art Allen Laboratory is a Biological Safety Level (BSL)-3 biotechnology lab, and our association with the Delaware Biotechnology Institute provides many opportunities for students to get involved in cutting edge research right on campus. Townsend and Worriflow Halls contain faculty offices, several classrooms, teaching and research laboratories, an agriculture library, a student commons, and a computer site.

Career Paths

The global employment outlook is increasingly good for PVMAB majors. A degree in this area prepares students for veterinary school admission, graduate school admission in animal and human related biosciences, as well as entry-level technical, research, sales, and marketing positions in chemical, health and agriculturally related industries. Government agencies, zoos, aquariums, and veterinary practices may also offer employment opportunities for students with the right background. Approximately 35 percent of graduates pursue advanced degrees in veterinary medicine, animal sciences, human medicine, and other sciences.

The Pre-Veterinary Medicine and Animal Biosciences Curriculum

Starting with the first semester, Pre-Veterinary Medicine and Animal Biosciences majors have at least one course in the major each term. To earn a bachelor's degree, students must complete **124 credits** and meet specific requirements, as outlined in the *University of Delaware Undergraduate Catalog*. Each semester's courses will vary, depending on the student's interest, background, and academic preparation. **The following plan is only one example; not every student will take every course in the same order. Most students will take 12 -17 credits per semester; Winter and Summer sessions may be used to lighten the loads of regular semesters.**

PREVETERINARY MEDICINE AND ANIMAL BIOSCIENCES

FALL SEMESTER

ANFS 165	First Year Experience	1
ANFS 101	Intro to Animal Science	3
ANFS 111	Animal Science Lab	1
CHEM 103	General Chemistry	4
MATH 221	Calculus	3
XXX	Soc Sci /Hum requirement	3

Total Credit 15

ANFS 251	Animal Nutrition	3
ANFS 252	Animal Nutrition Lab	1
CHEM 321	Organic Chemistry	4
XXX	Elective	4
XXX	Ag & Bio Science requirement	3

Total Credit 15

BISC 208	Intro Biology II	4
CHEM 527	Biochemistry	3
FREC 408/ STAT 208	Research Methods*	3
XXX	Soc Sci/Hum requirement	3
XXX	Elective	3

Total Credit 16

ANFS 445	Comparative Physiology	4
ANFS XXX	Required ANFS class	3
PHYS 201	Intro Physics I	4
XXX	Multicultural	3
XXX	Elective	2-3

Total Credit 16-17

SPRING SEMESTER

ANFS 102	Food for Thought	3
ANFS 140	Functional Anatomy	4
CHEM 104	General Chemistry	4
ENGL 110	Critical Reading and Writing	3
XXX	Elective	3

Total Credit 17

ANFS 265	Sophomore Seminar	1
ANFS 332	Intro Animal Diseases	3
BISC 207	Intro Biology I	4
CHEM 322	Organic Chemistry	4
XXX	Ag & Bio Science Requirement	3

Total Credit 15

ANFS 300	Animal & Plant Genetics	3
ANFS 310	Genetics Lab	1
BISC 300	Microbiology	4
XXX	Lit and Arts requirement	3
COMM 212	Oral Comm in Business*	3
XXX	Elective	3

Total Credit 16

PHYS 202	Intro Physics II	4
ANFS XXX	Capstone/Production Course	4
XXX	Second Writing Requirement	3
XXX	Elective	3

Total Credit 14

**Strongly recommended.*

FOR MORE INFORMATION

You are welcome to come talk with us about our majors and the ways in which we can help you reach your goals. Please contact us:

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