

THE FIELD

Pre-veterinary science students study the basic biology, chemistry, biochemistry, physics, and animal science critical for a career in animal health and biomedical science. In addition, students work directly with goats, sheep, poultry, horses, beef and dairy cattle, and laboratory animals, starting in their first semester. Deductive reasoning and critical thinking skills are honed through discovery-based tutorial research classes with faculty conducting nationally and internationally recognized research in immunology, reproduction and development, genetics, cancer biology, stem cells, animal behavior, and toxicology. Pre-veterinary science students are encouraged to intern or gain work experience at veterinary or human medical practices, clinics, hospitals, zoos, wildlife rehabilitation centers, conservation agencies, aquaria, and academic or biotechnology laboratories in order to fulfill the prerequisites for admission to veterinary medical college and for exposure to and exploration of alternative careers.

There is no minor available in pre-veterinary science.

THE MAJOR

The pre-veterinary science major prepares students for veterinary, medical, or graduate school, as well as careers in research in academic, industrial, and governmental settings, university teaching, or animal medicine. Admission to the pre-veterinary science major is contingent on earning a cumulative weighted GPA of B- or better in the following predictor courses: ANIMLSCI 103, 285, and 220; BIOLOGY 151, 152, and 153; CHEM 111, 112; CHEM 261; and MATH 127. Students can enter as animal science majors (choosing the animal management concentration, the biotechnology and research concentration, or the equine science concentration) or as veterinary technology majors, as the curriculum overlaps.

The major also includes additional courses in microbiology and physics, as well as advanced classes in immunology and reproductive physiology designed to prepare our graduates for success in professional and graduate school curricula. Although the pre-veterinary science curriculum was designed to fulfill the prerequisites of a majority of U.S. veterinary medical colleges and graduate schools, students also consult with their academic advisor and the pre-veterinary advisors to select elective courses to fulfill additional prerequisites for specific veterinary medical colleges or graduate schools, or to gain training for alternative careers.

BS/DVM EARLY ACCEPTANCE AND ARTICULATED PROGRAMS

The Tufts University Cummings School of Veterinary Medicine offers undergraduates enrolled at UMass Amherst the opportunity to apply to the DVM program in March of their sophomore year. This competitive program offers admitted students a seat in the Tufts veterinary school class after they complete prerequisite classes and their bachelor's degree and maintain a minimum 3.4 GPA. Successful applicants have completed the first year of Introductory Biology with lab and General Chemistry with lab, excel in academics, and demonstrate that they have a deep understanding of the veterinary medical profession. SAT scores are required. Further information regarding this program can be viewed at the Tufts website (vet.tufts.edu/admissions/dvm-admissions/bachelordvm-program).

UMass Amherst and the University of Melbourne, Australia, offer an articulated BS-DVM degree, in which students complete their last semester of their senior year and simultaneously start their first semester of their DVM degree program at the University of Melbourne. This results in students graduating with their DVM six months before their peers attending veterinary medical schools in the northern hemisphere. University of Melbourne is a globally accredited veterinary medical school, which allows students to take a licensing exam to practice anywhere in the world, including in North America.

The Royal (Dick) School of Veterinary Studies at the University of Edinburgh, Scotland, offers three guaranteed seats to UMass Amherst graduates.

RESEARCH TUTORIAL, INDEPENDENT STUDY, AND INTERNSHIP/PRACTICUM COURSES

The Department of Veterinary and Animal Sciences encourages students to pursue work outside the conventional lecture class-associated lab environment and to undertake research projects under the direction of a UMass faculty member or as outside internship experiences. Classes are taken pass/fail or for a letter grade and range from significant discovery-based research projects ('91C/M courses), independent literature or data review and analysis ('96 courses), or to an internship/practicum experience ('98 courses).

Internship experiences can be taken for credit. A diverse portfolio of veterinary medical-related experiences of at least 600 hours demonstrates that the candidate has a grasp of the veterinary medical profession that is required for admission to veterinary medical college. Internships are the best opportunity for students to obtain supportive letters of recommendation from veterinarians.

HONORS

The department offers a strong honors program in conjunction with Commonwealth Honors College. Honors colloquia have been appended to several courses offered by the department, and graduate courses at the 600 level or above are open to undergraduates as honors courses. Contact the honors coordinator, Kimberly Tremblay, PhD (kdtrembl@vasci.umass.edu or 413-545-5560) for more information.

STUDY ABROAD

Majors are encouraged to study abroad if it supports their academic and career goals. Students can choose to take courses to meet their General Education requirement or science courses that fulfill their pre-vet major requirements. Students should contact the International Programs Office (413-545-2710, umass.edu/ipo) and work closely with their academic advisor to choose the appropriate courses and for pre-approval.

CAREER OPPORTUNITIES

The pre-veterinary major prepares students for veterinary medical, human medical, or graduate school, as well as careers in research in academic, industrial, and governmental settings, secondary or higher education, or medicine.

THE COLLEGE OF NATURAL SCIENCES

The College of Natural Sciences unites the life, environmental, computational, and physical sciences on campus. Students take advantage of a range of inquiry-based classroom and laboratory experiences, hands-on undergraduate research opportunities, multidisciplinary and cross-departmental education and research initiatives, and a variety of science student organizations. In addition, they are encouraged to develop strong written and oral communication skills, as well as leadership and problem-solving abilities.

Office: 427X Integrated Sciences Building
Phone: 413-545-0666
Website: vasci.umass.edu

For more information on the major of pre-veterinary science, contact Professor Janice Telfer (413-545-5564, telfer@vasci.umass.edu).