

# Advising Information for Students Planning for Veterinary Medicine (2007-08)

## Standard Course Requirements for Most Veterinary Schools (Based on Prerequisites for The Ohio State University)

[N.B., **ONLY ONE** required course for admission to vet school may be taken after the fall term of the year of application.]

### Biology Courses: Five courses...

- 151, Introductory Biology I: How Science Works (no prerequisite) (**OR** AP Biology or International Baccalaureate credit)
- 152, Introductory Biology II: How Life Works (no prerequisite) or an equivalent (e.g., AP Biol or IB credit or BIOL 153)
- 230, Molecular and Cellular Biology (Prerequisites: BIOL 151, 152, & CHEM 120; **OR** CHEM 220)
- 338, Microbiology (BIOL 230)
- 365, Genetics (BIOL 230)

### Chemistry Courses: Five courses...

- 120, General Chemistry I: Structure and Bonding
- 121, General Chemistry II: Introduction to Chemical Analysis (CHEM 120)
- 220, Introduction to Organic Chemistry (CHEM 121)
- 320, Intermediate Organic Chemistry (CHEM 220)
- 366, Basic Biochemistry (BIOL 230 and CHEM 320) (can also be taken as BIOL 366)

### Physics Courses: One of these two-course sequences (algebra-based 113 & 114; **OR** calculus-based 213 & 214)...

- 113, Principles of Physics I
- 114, Principles of Physics II (PHYS 113 or 213)
- 213, Fundamentals of Physics I (MATH 198, which may be taken concurrently)
- 214, Fundamentals of Physics II (PHYS 213 and MATH 199, which may be taken concurrently)

### Mathematics Course: One college course from among the following...

- 197, Pre-Calculus (Math placement exam)
- 198, Calculus (MATH 197 or equivalent, such as Math placement exam) (*several vet schools require MATH 198: see below*)

### Other Required Courses...

FRCL 1--, Freshman Colloquium: This should satisfy your college English writing requirement at The Ohio State University.  
Humanities and Social Sciences (14 credit hours): These courses are taken among your general distribution requirements.  
Electives (7 hours): These can be any other courses taken to complete a major and/or general college requirements.

### Additional Requirements for Some Veterinary Medical Schools...

Some schools require at least Calculus I (MATH 198), and some also require Statistics (MATH 108). Some schools require a course in public speaking and an animal nutrition course. You will need to check the requirements for particular schools at the website of the American Association of Veterinary Medical Colleges (AAVMC; see below).

### Typical Frequency of Course Offerings at Hiram College...

Courses offered twice/year:	Fall & Spr:	CHEM 120, 121; MATH 198
Courses offered once/year:	Fall:	BIOL 151, 230; BIOL/CHEM 366; CHEM 220; MATH 197; PHYS 113, 213
	Spr:	BIOL 152, 338, 365; CHEM 320; PHYS 114, 214

**American Association of Veterinary Medical Colleges (AAVMC)** (<http://aavmc.org/>): The AAVMC has a website with information on all member colleges of veterinary medicine, including links that list each school's requirements for admission and details about how and when to apply. Almost all of the schools in AAVMC use a common electronic application administered through the Veterinary Medical College Application Service (VMCAS) ([http://aavmc.org/vmcas/aavmc\\_vmcas.htm](http://aavmc.org/vmcas/aavmc_vmcas.htm)).

**Shadowing Experience is Required:** Every Vet School requires their applicants to have substantial experience working with practicing veterinarians in a variety of settings to gain a broad-based understanding of the profession. This experience must involve large and small animals and must be done over as long a period as possible. In addition to broad exposure, the applicant should fully explore a main area of interest to them. Vet schools are looking for both practical experience and a concrete record of commitment to the profession. Thus, the earlier a student can begin shadowing, and the more consistent and persistent they can be with this aspect of the requirements, the better prepared he/she will be for applying to vet school. Minimal requirements for shadowing time for each school are listed on the AAVMC website (see above). An example of this requirement is that **The Ohio State University requires at least 80 hours of shadowing with one veterinarian as a minimum of contact.** Much more is required for a competitive application. Achieving this broad base of experiential learning will entail work with veterinarians in clinical practice and in other venues such as basic and applied research, public veterinary health, food safety, and even homeland security.

Hiram students have a wide variety of veterinarians to choose among to do this shadowing work in a clinical practice (see a Biology faculty member for this information). Several of these veterinarians are in the Hiram area while others are a bit farther away. In addition, each year students initiate contact with veterinarians they know to do this shadowing work near their homes during breaks and in the summer. Three Hiram graduates who are veterinarians in the area initiated contact with even more vet practices recently to provide additional options for those enrolled at Hiram. Students also can work with animals at our Field Station in the general collection and in the Wildlife Rehabilitation and Waterfowl Conservation programs, interacting with the vets who do health the checks and possibly shadowing the veterinarians at the Akron Zoo, our partner in Waterfowl Conservation. They likewise may work with other animals kept on campus and used by Professors Kim Phillips in Neuroscience or Tom Koehnle in Biology to gain further experience in lab animal care, husbandry, medicine, research, and surgical techniques.

**Veticus:** Hiram began Veticus, a pre-vet Club, in the spring of 2005. This group meets frequently and, along with the students' academic advisors, educates anyone interested about the requirements for entry into veterinary medical programs or other careers involving animals. They also discuss the wide range of vet schools to which students might apply, arrange for veterinarians to visit campus for presentations and discussions about the day to day realities of the profession, and organize field trips to various venues, including the open house at The Ohio State University College of Veterinary Medicine in the spring (usually a Saturday in mid April). The faculty advisor for Veticus is Matt Hils in the Biology Department ([hilsmh@hiram.edu](mailto:hilsmh@hiram.edu); office phone 330-569-5265).

**Additional Information** (taken from The Ohio State University's College of Veterinary Medicine prerequisite coursework evaluation form for Hiram College for May 2005 and onward):

*"To be eligible for admission, applicants must have earned 96-101 quarter-credit hours [or equivalent]. No more than one required pre-veterinary medical course may remain to be completed by the end of the Autumn term of the academic year in which you apply; that course must be completed by the end of Winter Quarter or Spring Semester of the academic year in which you apply. A grade of C or better must be earned in all prerequisite course work. Due to the constant changes in scientific fields, the Admissions Committee requires applicants to demonstrate recent competence in science prerequisites. This is automatically demonstrated if all science prerequisites have been satisfactorily completed within the 10 calendar years immediately preceding the year of application. If science prerequisites are older than 10 years, the applicant must either repeat them (e.g., as an audit course) or have current experiences which demonstrate mastery in the appropriate science (e.g., graduate courses in biological sciences)."*

Most often pre-vet students take the Basic Biochemistry course (BIO/CHE 366) in the fall term of their last year at Hiram as their final course in preparation for vet school, then finish major requirements and any outstanding college graduation requirements in that fall term and the following spring term. Some students have taken other courses later, actually completing one of the requirements for vet school in the spring term of their last year, but this has been the exception in most cases.

**Admission Test and GPA for Veterinary School:** The GRE (Graduate Record Exam; [www.gre.org](http://www.gre.org)) is accepted by most vet schools, but some will accept the MCAT (Medical College Admission Test; [www.aamc.org](http://www.aamc.org)). Check the AAVMC website (above) for each school's requirements. The admission test must be taken before 1 September the year prior to a student's planned enrollment in vet school. For students entering OSU in 2006 a competitive GRE score was 1200 or higher. GRE scores under 1000 were unacceptable. In the fall applications of 2006, the minimum GPA was 3.00 for Ohio residents and 3.50 non-Ohio residents.

**Where Do Hiram Students go to Veterinary School?** Although the vast majority of Hiram students apply to and enroll at The Ohio State University vet school, some have gone to several other programs including Michigan State University, University of Illinois, Cornell University, and Texas A&M University. Occasionally students who do well at Hiram do not get into vet school on their first try but then do so after one or two more years of shadowing and/or course work.

**Possible Majors for Pre-Veterinary Preparation:** Generally students who are working toward veterinary school decide to major in Biology, and a few major in Chemistry. We also have an innovative Biomedical Humanities major that would fit just as well for a prevet student as for those students interested in a career in the human health care professions. We've also had students major in Mathematics while completing the prerequisites for vet school. The key message is that you can major in almost anything to get into vet school provided you complete all the requirements for admission. The key is to select a major in which you can thrive. Below is a form to help plan your college curriculum. The courses listed are all required for prevet students and should be taken by the fall term of your senior year. There are two options listed for each of the first six semesters, but any combination of these biology, chemistry and physics sequences, plus a math course, is fine so long as they are completed by senior year.

<b>Year One:</b>	<b>Year Two:</b>	<b>Year Three:</b>	<b>Year Four:</b>
<b>Fall 12</b> Pursue pre-vet & degree requirements FRCL _____ BIOL 151 Introductory Biology I CHEM 120 General Chemistry I    FRCL _____ CHEM 120 General Chemistry I _____	<b>Fall 12</b> Pursue pre-vet & degree requirements BIOL 230 Mol/Cell (152, Che 120) CHEM 220 Intro Organic Chem _____  BIOL 151 Introductory Biology I CHEM 220 Intro Organic Chem (120) CHEM 320 Intermed Org Chem (220) MATH 197 or 198 precalc or calculus (or in Sp-12 or Fa-12 of 3 <sup>rd</sup> yr)	<b>Fall 12</b> Pursue pre-vet & degree requirements PHYS 113 or 213 Physics I MATH 197 or 198 precalc or calculus (or taken in Sp-12 of 2 <sup>nd</sup> year) _____  BIOL 230 Molecular/Cellular Biol PHYS 113 or 213 Physics I _____	<b>Fall 12</b> Finish pre-vet & degree requirements BIO/CHE 366 Basic Biochemistry _____  <b>Application Process (cont.)</b> -Take GRE by 1 Sep -Primary Application Due by 1 Oct -In 2-8 wks Email is sent to students with info on Secondary Application -Interviewing done early Nov thru late Jan, after 2 <sup>nd</sup> ary appl is complete
<b>Fall 3</b> Pursue pre-vet & degree requirements _____	<b>Fall 3</b> Pursue pre-vet & degree requirements _____	<b>Fall 3</b> Pursue pre-vet & degree requirements _____	<b>Fall 3</b> _____
<b>Spring 12</b> Pursue pre-vet & degree requirements FSEM _____ BIOL 152 Introductory Biology II CHEM 121 General Chemistry II   FSEM _____ CHEM 121 General Chemistry II _____	<b>Spring 12</b> Pursue pre-vet & degree requirements BIOL 365 Genetics CHEM 320 Intermed Org Chem (220) MATH 197 or 198 precalc or calculus (or in Fa-12 of 3 <sup>rd</sup> yr, if desired)  BIOL 152 Introductory Biology II CHEM 320 Intermed Org Chem (220) _____	<b>Spring 12</b> Pursue pre-vet & degree requirements PHYS 114 or 214 Physics II _____  BIOL 365 Genetics PHYS 114 or 214 Physics II _____	<b>Spring 12</b> Finish degree requirements Major & general course work not needed for vet school application... _____  [ <b>Note:</b> All but one requirement must be finished by the end of fall semester if a student plans to enroll in vet school the year after graduation.]
<b>Spring 3</b> Pursue pre-vet & degree requirements _____	<b>Spring 3</b> Pursue pre-vet & degree requirements BIOL 338 (230) or in Jr Yr →	<b>Spring 3</b> Pursue pre-vet & degree requirements BIOL 338 (230) (or in So Yr)	<b>Spring 3</b> Finish degree requirements _____
<b>Summer</b> <b>Shadowing</b> (at least 80 hrs minimum with just <u>one</u> veterinarian required before application during fall of your senior year.)	<b>Summer</b> <b>Shadowing (cont.)</b> (More than 80 hours total of shadowing, with a variety of vets, is needed to have a competitive application senior year.)	<b>Summer</b> <b>Shadowing (cont.) and/or Research</b> (Keep up the shadowing, but consider a research internship, too). <b>Application Process Begins Jul 1<sup>st</sup></b>	<b>Summer</b> Prepare for move to location of veterinary medical college