

# Pre-Veterinary Medicine

## *What is Pre-Veterinary Medicine?*

Pre-Veterinary Medicine (Pre-Vet) is a pre-professional program at Cornell College for students interested in pursuing a career as a veterinarian (Doctor of Veterinary Medicine, or DVM). The program is designed to help students identify both prerequisites for admission and meaningful co-curricular experiences in and out of the medical field. The program is coordinated by Dimensions: The Center for the Science and Culture of Healthcare. Pre-Vet students are expected to meet regularly with the Associate Director of Dimensions and are strongly encouraged to attend pre-health events sponsored by Dimensions on and off campus.

## *Professional Resources*

The following resources offer extensive, reliable information on preparing for the healthcare field, in addition to those found throughout the Dimensions Guide to Pre-Veterinary Medicine:

- [Dimensions: The Center for the Science and Culture of Healthcare](#)
- [ExploreHealthCareers.org](http://ExploreHealthCareers.org)
- [American Veterinary Medical Foundation \(AVMF\)](#)

## *Pre-Veterinary Medicine Guide Outline*

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## ***What is a Veterinarian?***

Veterinarians care for the health of animals and work to improve public health. They diagnose, treat, and research medical conditions and diseases of pets, livestock, and other animals (Bureau of Labor Statistics Occupational Outlook Handbook, 2015).

Veterinarians may use their education in a variety of ways, such as teaching and research, private practice, biomedical and pharmaceutical research, protecting public health, regulatory medicine, environmental health, zoological medicine, animal-assisted therapy, wildlife management, aquatic animal medicine, and agribusiness.

Veterinarians must complete a Doctor of Veterinary Medicine (DVM) degree and pass board examinations in order to practice as a licensed veterinarian. Veterinarians may specialize in areas such as molecular biology, laboratory animal medicine, toxicology, immunology, diagnostic pathology, or environmental medicine with additional post-graduate education. [Veterinary Technicians](#) and [Veterinary Assistants and Laboratory Animal Caretakers](#) also work in the veterinary medical field.

[Association of American Veterinary Medical Colleges \(AAVMC\)](#)

### ***Cornell College Health Professions Committee (HPC)***

The [HPC](#) assists current students and alumni applying to professional programs in healthcare. The HPC process results in a Committee Letter of Recommendation sent to each school the student applies to, along with all other letters of recommendation. The Committee Letter of Recommendation is signed by the 4 members of the HPC:

- Barbara Christie Pope, PhD
- Craig Tepper, PhD
- Associate Director of Dimensions
- 1 Cornell College faculty or staff member of the student's choosing

The [HPC Committee Guide](#) is updated annually and should be reviewed by applicants before applying for the HPC. Students can find the most up-to-date version of the HPC Committee Guide on the Dimensions HPC website. Dimensions hosts workshops every year during 3<sup>rd</sup> or 4<sup>th</sup> block on the HPC and healthcare program application processes.

Applications are due to the HPC the summer before the intended application cycle begins. (For example, students hoping to start a DVM program in fall 2017 will submit all application materials to the HPC in summer 2016.) Visit the Dimensions website to learn more about the HPC application process.

[Centralized Application for DVM Programs](#)  
[Veterinary Medical College Application Service \(VMCAS\)](#)

[Accredited DVM Programs](#)  
[AVMA Accredited Veterinary Colleges](#)

## ***DVM Program Prerequisites***

A specific major is not required for admission into a DVM program. Students are advised to major in a discipline they are both most interested and able to excel in.

The following courses are required for admission to most DVM programs:

<i>Prerequisite (AAVMC 2015)</i>	<i>Prerequisites for the Iowa State University College of Veterinary Medicine (2015 Cycle)</i>	<i>Course Equivalent at Cornell College</i>
2 English courses	6 semester hours of English composition	ENG 111 (1 <sup>st</sup> Year Writing Course) & 1 additional writing course within the English department
2 Introductory Biology courses with labs	8 semester hours of Biology with labs	BIO 141 (Foundations: Cellular Biology) & BIO 142 (Foundations: Organismal Biology)
2 General Chemistry course with lab	7 semester hours of General Chemistry with lab	CHE 121 (Chemical Principles I) & CHE 122 (Chemical Principles II)
1 Genetics course	3 semester hours of Genetics (upper level Mendelian and molecular)	BIO 315 (Genetics)
2 Organic Chemistry courses with lab	7 semester hours of Organic Chemistry with lab	CHE 225 (Organic Chemistry I Lecture), CHE 326 (Organic Chemistry II Lecture), & CHE 327 (Organic Chemistry Laboratory)
1 Biochemistry course	3 semester hours of Biochemistry	CHE 334 (Biochemistry)
1 Anatomy/Physiology course	3 semester hours of mammalian Anatomy and/or Physiology	BIO 329 (Human Anatomy & Physiology I)
1 Speech/Public Speaking course	3 semester hours of oral communication (interpersonal, group, or public speaking)	See Faculty Advisor
2 Humanities/Social Science courses	8 semester hours of humanities and social sciences	Suggested: PSY 161 (Fundamentals of Psychological Science) PSY 282 (Abnormal Psychology) SOC 101 (Sociological Thinking)
1 Physics course	4 semester hours of Physics	PHY 141 (Introductory Physics I)

*The following courses at Cornell College are prerequisites for some of the aforementioned AAVMVC prerequisites and/or are recommended for students pursuing DVM programs:*

BIO 326 (Microbiology)

**Note:** Each DVM program has a specific list of prerequisites you must complete to be considered for admission. Most DVM programs require additional courses than those specified in the table above. Visit both the [VMCAS Application website](#) and DVM program websites regularly to explore program-specific prerequisites to ensure you've satisfied courses needed before applying. Be sure your Faculty Advisor is aware that you are Pre-Veterinary Medicine. It is strongly recommended that you meet with your Faculty Advisor and [Dimensions staff](#) regularly to ensure you are meeting the requirements for both your major and DVM programs in the proper sequence.

### *AP Credit*

DVM programs have different rules when it comes to accepting AP credit as fulfillment of a prerequisite. If you enter Cornell College with AP credit, closely check the requirements of the DVM programs of which you intend to apply.

### *Community College Credit*

Most DVM programs prefer that applicants take all prerequisites at a 4-year institution. Students interested in earning credit at a community college should meet with their Faculty Advisor and the Associate Director of Dimensions *before* registration.

## ***What makes a competitive applicant for DVM programs?***

DVM programs are incredibly competitive, with many more qualified applicants applying each year than there are spots available. DVM programs today are looking for well-balanced applicants. Most DVM programs offer a [holistic review](#) of applications meeting the minimum GPA and [Graduate Record Exam \(GRE\)](#) score. Holistic review is an individualized way of assessing an applicant's capabilities by which balanced consideration is given to experiences, attributes, and academic metrics and, when considered in combination, how the individual might contribute value as a veterinary medicine student and future veterinarian.

Becoming a competitive applicant for DVM programs is a marathon, not a sprint. Students should not rush into a DVM application cycle. The "right" time to apply for a DVM program is unique for each applicant and representative of their individual aptitude for the sciences, experiences, and level of personal readiness to commit to the health profession.

Competitive DVM program applicants:

- Earn high grades in prerequisites at a 4-year institution
- Demonstrate (from experience) they are aware of the veterinarian's role in relation to other animal healthcare providers
- Apply to DVM programs only when they feel they are ready to make a lifelong commitment to veterinary medicine and have the strongest application possible
- Research the schools they apply to assess "fit" and review prerequisites *before* applying
- Reflect on and make connections between experiences leading up to applying to DVM programs
  - Can discuss what they learned *from* their experiences rather than what they *contributed*
  - Demonstrate how they've applied what they learned in earlier experiences to experiences that followed
  - Are able to easily demonstrate and explain why experiences were personally meaningful
  - Demonstrate they understand the impact and purpose of their responsibilities in each experience
- Have high science and cumulative GPAs
- Earn a competitive GRE score (scores vary by program)
- Balance diverse animal and medical experiences with other activities they are passionate about
- Can speak from experience when asked the question, "What makes a good veterinarian?"
- Can answer the question "Why do you want to be a veterinarian?" clearly and easily, demonstrating self-reflection and realistic expectations of the field of veterinary medicine
- Have a parallel plan in mind: They know what they will do to demonstrate interest in and a commitment to veterinary medicine if they are not accepted into a DVM program in their first application cycle.

Review the [AAVMC's Your Portal to a Successful Career in Veterinary Medicine](#) website to learn more about pursuing veterinary medicine.

**Cornell College Pre-Veterinary Medicine Sample 4-Year Timeline\***

Year in School	Cornell College Course	Additional Information
First Year	FYS CHE 121 CHE 122 BIO 141 BIO 142 ENG 111 1 additional English writing course	Your top priorities are becoming acquainted with your new surroundings, living arrangements, and course requirements. Students are strongly encouraged to get involved in co-curricular activities they are interested in or passionate about. (Activities do not all need to be medical-related.) New students should meet with the Associate Director of Dimensions at least once during their first year on campus. <ul style="list-style-type: none"> <li>• Many students will begin exploring opportunities to shadow healthcare professionals, volunteer in the community, and take part in student organizations. Hours spent in co-curricular activities should be tracked for the VMCAS.</li> <li>• Students are encouraged to start thinking about summer as early as October**.</li> <li>• Students should review professional resources from this document and the Dimensions website to familiarize themselves with veterinary medicine and the veterinary medicine field.</li> <li>• Attend relevant Dimensions Pre-Health Workshops.</li> </ul>
Second Year	PSY 161 STA 201 CHE 225 CHE 326 CHE 327 BIO 205 BIO 315	<ul style="list-style-type: none"> <li>• Seek opportunities to work closely with faculty members on research and other projects outside of class. Narrow down co-curricular involvement to experiences that are most meaningful to you and that you are most passionate about (even if it's not healthcare related.) Move up to leadership positions or take on more responsibility in co-curricular activities.</li> <li>• Start looking at veterinary medical schools more closely to identify unique requirements of schools you are interested in. Read in detail about the veterinary medical school application cycles, the GRE, and the Cornell College Health Professions Committee.</li> <li>• Attend relevant Dimensions Pre-Health Workshops.</li> </ul>
Third Year	CHE 202 PHY 141 CHE 334 BIO 329 PSY 282 SOC 101	<ul style="list-style-type: none"> <li>• Continue to work up to leadership positions or take on more responsibilities in co-curricular activities. Continue to shadow in the medical field and volunteer in the community.</li> <li>• Be sure you've completed at least the minimum amount of shadowing hours required by veterinary medical schools you plan to apply to.</li> <li>• Register for the GRE and prepare by taking several full-length practice exams. (Dimensions can help you identify GRE prep resources.) Students should sit for the GRE in April, May or June of their third year on campus if they plan to apply to start a veterinary medical school immediately following graduation.</li> <li>• Prepare for Health Professions Committee if you intend to enter veterinary medical school immediately following graduation. Application deadlines should be verified with the Associate Director of Dimensions before the end of your junior year. (Example: Health Profession Committee applications are due summer 2016 if you hope to start veterinary medical school fall 2017.)</li> <li>• Attend relevant Dimensions Pre-Health Workshops.</li> </ul>
Fourth Year	BIO 326 Complete graduation major/minor requirements.	<ul style="list-style-type: none"> <li>• Complete secondary applications and on-campus interviews.</li> <li>• Attend relevant Dimensions Pre-Health Workshops.</li> </ul>

\*You should always begin with the course most aligned with your current ability. It is better to start a few courses back and earn an “A” than to jump right into the prerequisite course and earn a “B” or “C”. This sample timeline includes many required, recommended, and prerequisite courses for veterinary medical school. Always consult specific veterinary medicine program prerequisites and with your Faculty Advisor before making course selections.

\*\*Pre- Veterinary Medicine students hoping to enter veterinary medical school immediately after graduation are strongly encouraged to use their summers wisely in preparation for DVM programs. This includes conducting research, volunteering in the community, shadowing or interning in the field of veterinary medicine, and/or working in the healthcare field.

