Congratulations on your decision to study at the University of Minnesota College of Veterinary Medicine!

The University of Minnesota College of Veterinary Medicine: The Best Choice for You

College of Veterinary Medicine

Points of Pride

Interested in food animal medicine? Check out VetFAST

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Congratulations on your decision to study at the University of Minnesota College of Veterinary Medicine!

It is an exciting time to join the veterinary profession. In medicine, science, business, and agriculture, the demand for services has never been higher—and the importance of veterinary medicine has never been greater. Veterinarians care for companion and food animals; they protect the public’s health; they help protect endangered wildlife; and they are often the first responders when we face threats from emerging infectious diseases. They are small business people, community leaders, neighbors, and friends. Veterinarians truly touch peoples’ lives every day.

The University of Minnesota College of Veterinary Medicine welcomes your application for admission into our programs.

At the University of Minnesota, you will benefit from an innovative curriculum that combines practical hands-on experience with broad-based medical education. You will work with faculty who are international experts in an array of areas, including urology, oncology, emerging infectious diseases, food safety, and genomics. You will study closely with large and small animal clinicians in the University’s Veterinary Medical Center and other specialized facilities. It’s a tremendous opportunity to work with and learn from the best.

We’re here to advise you and guide your career choices.

You have several degree options from which to choose: a doctor of veterinary medicine (D.V.M.) degree, a dual D.V.M./master of public health degree, a dual D.V.M./Ph.D. degree program, an M.S. or Ph.D. in basic and clinical sciences. You will choose to care for companion animals, support agribusiness through food animal medicine, advance the conservation of wildlife, or pursue a scientific career in biomedical research. You will also decide whether to go into private practice, join an agribusiness or food company, work for a state or federal agency, or become a scientist. Whatever decisions you make, we will help you make certain they are the correct ones for you.

If selected for D.V.M. admission or admission into a graduate program, you will join an outstanding class of students taught by a highly respected faculty.

Admission into University of Minnesota programs is highly selective. Each year we admit 90 students into the D.V.M. program from hundreds of applicants. Our students come from all walks of life and levels of experience. Some are admitted directly from undergraduate study, while others decide to pursue veterinary medicine after successful careers in other fields. Together, you and your fellow students constitute the next generation of veterinarians and scientific scholars—making us proud, keeping us healthy.

In these pages, you’ll learn more about the University of Minnesota College of Veterinary Medicine and the opportunities to prepare for a fulfilling career.

We encourage you to visit www.cvm.umn.edu to learn more about the College of Veterinary Medicine. You may write to us at dvminfo@umn.edu or call us at 612-624-4747 for answers to any of your questions about the D.V.M. program. For information on the M.S. or Ph.D. programs please write to us at vetresgp@umn.edu.

“I have been continually impressed with the dedication and drive of the faculty. It’s obvious that they want you to succeed in veterinary medicine and will regularly go beyond what is expected to assist you in any way possible.”

Abna, Class of 2006
Elbow Lake, MN
The University of Minnesota
College of Veterinary Medicine:
The Best Choice for You

World-Class Professional and Graduate Education
The University of Minnesota College of Veterinary Medicine is a leader in the study of infectious diseases, food safety, raptor conservation, and genomics and has a reputation for excellence in both large and small animal medicine. Established in 1947, the college has graduated more than 3,300 veterinarians and hundreds of scientists. The college is especially well known for its emphasis on experiential learning and giving students practical experience. Our clinical teaching program gives students hands-on practice in the Veterinary Medical Center, livestock production units in the field, private veterinary practices, public health, and animal disease regulatory agencies, and other veterinary medical institutions. Faculty members working with our M.S. and Ph.D. students are outstanding, and their research projects are on the cutting-edge.

A Prestigious University
A land-grant university with a strong tradition of education and public service, the University of Minnesota ranks among the country’s top 3 research institutions and among the top 20 public universities. In addition to your veterinary studies, you will have the opportunity to pursue interdisciplinary topics and issues. Only a handful of universities have schools of veterinary medicine, medicine, public health, agriculture, law, and business all located together. This combination of disciplines exposes you to a wide variety of perspectives and learning experiences — ranging from the study of ethics to conducting biomedical research.

An Exciting Metropolitan Setting
Study, sleep, study, sleep. There should be more to your educational experience than this. The University of Minnesota is home to one of the few veterinary colleges located in a major metropolitan area. Minneapolis and St. Paul provide social and cultural benefits you won’t find elsewhere. Collegia, Inc. ranks Minneapolis–St. Paul as one of the top five major metropolitan locations in which to seek higher education. No matter what your interests, you’ll find them here—a nationally recognized arts and theater community, a variety of ethnic cultural activities, four glorious seasons of outdoor recreation, professional sports, and restaurants for every taste. It’s a great place to work and live.

Learning-Centered Facilities
The college is housed in a complex of interconnected buildings on the St. Paul campus, home to five of the University of Minnesota’s 20 colleges. Veterinary students study, conduct research, and practice in these buildings, including the Veterinary Medical Center and the Veterinary Diagnostic Laboratory.

“The D.V.M./M.P.H. program gives you a feel for the impact of veterinary medicine on the real world. Even as vet students, we are able to show those already in the public health field the importance of veterinary medicine. It puts things into perspective for all of us.”

Kara, Class of 2006
Robbinsdale, MN
College of Veterinary Medicine Points of Pride

Innovative Education and Experiential Learning

- An integrated curriculum gives students the opportunity to learn the relationship between the basic sciences and the clinical cases they will see in their practices.
- First and second year students benefit from hands-on, one-on-one work with local private practitioners.
- Second year students practice clinical skills during mini-rotations in the Veterinary Medical Center.
- Students practice with trained actors in a mock clinical setting to hone their client communication skills.
- Students develop professional skills in leadership, business, ethics, and other non-technical areas.
- Students choose from five specialized tracks (small animal, equine, food animal, mixed animal, and interdisciplinary).
- Fourth year students choose from over 60 rotations ranging from A to Z—“Advanced Building Design and Herd Evaluation” to “Zoological Medicine.”
- The college is one of the first to offer a dual D.V.M./M.P.H. program, allowing students to earn doctor of veterinary medicine and master of public health degrees in as little as four years.
- Our state-of-the-art dairy calving facility is the only one in the nation where students participate in intensive two-week on-site rotations.
- Our spiral computed tomography (CT) scanning machine allows students training in the latest technology.
- The nation’s first Veterinary Rapid Response Team enables students to gain real-world experience by helping government agencies respond to critical public health issues such as Chronic Wasting Disease.
- The new Summer Scholars Program offers selected students the opportunity to work as paid interns on research projects they help create.

Cutting-Edge Research

- The college ranks second among all veterinary colleges in industry-sponsored research.
- When the Minnesota turkey industry was attacked by a deadly strain of avian pneumovirus, college researchers quickly sequenced the genome, developed new diagnostic techniques, and developed a vaccine approved by the USDA.
- An equine faculty member’s discovery of the disease polysaccharide storage myopathy, a painful muscle disorder, was named one of the top 10 discoveries of the last decade by Equus magazine.
“It’s really nice to be able to work with live animals during your first year. It’s a nice break from being in lectures, and it reminds you why you are in vet school in the first place. Many other vet schools don’t allow their students this luxury.”

Meghann, Class of 2006
Plymouth, MN

Successful Graduates
JoAnne Bowman—first female veterinarian in the Army Veterinary Corps
Phyllis Kanki—received a $25 million grant to prevent the spread of AIDS in Nigeria.
Stan Kleven—has developed a world-renowned avian mycoplasma research and service program.
Harley Moon—one of only two veterinarians named to the National Academy of Science.
Jim Rasmussen—veterinarian to hundreds of exotic and endangered animals at the Minnesota Zoo.

Alisen Vetter
In her role as a Research Scientist at Medtronic, Inc., Dr. Vetter was responsible for leading a global team of physicians and engineers in the development of a new pacemaker that, for the first time in the history of cardiac pacing, treats congestive heart failure as well as abnormally slow heartbeats. Since the market release of this cardiac pacing system, thousands of patients around the world have found relief from the symptoms of congestive heart failure. In many cases, drug therapies had failed to relieve their symptoms and the new pacemaker therapy was their last hope. Some patients have even been taken off the waiting list for a heart transplant because of the effectiveness of the new pacemaker in treating their cardiac disease.
Choosing a Degree Program

The College of Veterinary Medicine offers the doctor of veterinary medicine (D.V.M.), dual doctor of veterinary medicine/master of public health degree (D.V.M./M.P.H.), a master of science (M.S.), a doctor of philosophy (Ph.D.) degree in molecular veterinary biosciences or veterinary medicine, or a dual doctor of veterinary medicine/doctor of philosophy (D.V.M./Ph.D.) degree.

Professional Degrees

D.V.M.
• The D.V.M. is a rigorous four-year professional program preceded by three to four years of pre-professional study. During the first three years of the D.V.M. program, you will study the normal animal, the pathogenesis of diseases, and the prevention, alleviation, and clinical therapy of diseases. The D.V.M. program concludes with 14 months of clinical rotations in the Veterinary Medical Center, during which you will learn the methods of veterinary care and develop professional practice skills. The fourth year includes 6 to 10 weeks of externship experience at off-campus sites. Upon receiving your degree, you will be qualified to work as a veterinarian, pursue additional training in a specialty, or enter a graduate degree program. More detailed information about the D.V.M. curriculum is found on pages 11–13.

D.V.M./M.P.H.
• The Veterinary Public Health Program is one of the first in the nation that allows veterinary students to simultaneously earn a D.V.M. and a master’s degree in public health (at least 41 credit hours) in as little as four years. This option allows you to obtain the credentials to work in government or industry on issues related to food safety, emerging infectious diseases, biosecurity, and public health. Here’s how the program works:
  • After admission to the D.V.M. program, you apply to the School of Public Health for admission to the Veterinary Public Health program.
  • You earn an additional 41 credits through M.P.H. courses taken during the summers before your first, second, or third year of the veterinary curriculum. The coursework includes some online distance learning courses as well as three-week public health institutes held on the University’s Minneapolis campus.
  • During your four years in the program, you will complete a public health field experience and a master’s project under the guidance of a faculty adviser.
  • The M.P.H. is offered by the School of Public Health, and tuition costs are separate from those of the College of Veterinary Medicine. To help keep this cost down, students are allowed to "double count" some of their coursework for both degrees.

D.V.M./Ph.D.
• The most significant medical discoveries result from collaboration between the basic sciences and clinical medicine. Clinician scientists, who play a unique role in this process, are skilled in both hypothesis-based research and clinical practice. Our graduates become tomorrow’s leaders in veterinary medicine. The D.V.M./Ph.D. curriculum requires completion of all professional degree requirements, as well as additional graduate study and bench research that is the basis of the Ph.D. thesis. Dual degree candidates must be accepted into the D.V.M. program before consideration for the Ph.D. program. Once accepted, students have two options for completing a dual degree: the concurrent dual degree option (students pursue the Ph.D. in the middle of their veterinary studies) and the sequential dual degree option (students complete the D.V.M. degree before starting Ph.D. studies). Financial support is available.

Interested in food animal medicine?
Check out VetFAST

VetFAST, the Veterinary Food Animal Scholars Program, encourages students to pursue food animal practice in response to the demand for veterinarians trained to work with dairy cows, beef cattle, swine, poultry, sheep, and goats. VetFAST allows entering freshmen in the College of Agricultural, Food and Environmental Sciences to
• Receive an admissions decision from the College of Veterinary Medicine at the end of the first year of college, instead of the third or fourth year.
• Complete your B.S. and D.V.M. degrees in seven years instead of eight.
• Waive the GRE requirement as part of your admission process.
• Benefit from mentorships with college faculty and students.
• Secure scholarships and financial support through summer internships.

To learn more about VetFAST, contact the College of Veterinary Medicine 1365 Gortner Avenue, St. Paul, MN 55108-6188, 612-624-4747 or the College of Agricultural, Food and Environmental Sciences 1420 Eckles Avenue, St. Paul, MN 55108-6188, 612-624-3045.

B.S. in Veterinary Science—This limited option is for students who complete their undergraduate veterinary college prerequisites in three years or less and did not complete a baccalaureate degree. Rather than working another year at the undergraduate level, and provided you are accepted into the College of Veterinary Medicine, you earn your B.S. after completing two years of the veterinary curriculum. The B.S. degree gives you the credentials you need to pursue graduate and specialty education programs.
Academic Degrees

M.S./Ph.D
You may choose to pursue a master of science or doctor of philosophy degree in molecular veterinary biosciences or veterinary medicine.

Molecular veterinary biosciences areas of study include
• Immunobiology
• Microbiology and virology
• Pathology
• Cellular and molecular biology
• Genetics and genomics
• Physiology and pharmacology

Veterinary medicine areas of study include
• Comparative medicine and pathology
• Population medicine
• Surgery/radiology/anesthesiology
• Theriogenology
• Infectious diseases

Each graduate program has its own application procedure and deadline. To learn about admissions requirements, registration procedures, or requirements for graduate degrees, refer to www.grad.umn.edu or write to vetresgp@umn.edu. For questions about specific programs, call
• Director of Graduate Studies, Molecular Veterinary Biosciences at 612-624-2700
• Director of Graduate Studies, Veterinary Medicine at 612-624-0750
• College of Veterinary Medicine Web site, www.cvm.umn.edu

“Every day I spend in my clinical rotations confirms my decision to pursue veterinary medicine. Our faculty are better than the weather!”

Greg, Class of 2004
Inver Grove Heights, MN

Preparing for D.V.M. Admission

You may be fresh out of high school when you decide to pursue a career in veterinary medicine; you may already have a couple years of undergraduate work completed; or you may have decided it’s time for a career change. No matter what your situation, it’s helpful to know what’s required for admission before you apply.

High School Students
You should begin preparing for your college career by taking as many math and science courses as possible in high school, including biology, chemistry, and physics. Become familiar with the veterinary profession by volunteering or securing paid experience at a veterinary clinic, riding on calls with a large animal veterinarian, working on an animal related research project with a college professor, or volunteering at a humane society or animal shelter. Then, verify admission requirements with the college or university at which you plan to complete your pre-professional coursework.

Undergraduate Students
You may pursue your pre-veterinary studies at any accredited college or university. You may apply to the College of Veterinary Medicine during the academic year during which all of your required pre-veterinary coursework is complete. For most students this is during your senior year, for other students it might be during your third year of college. About 20 percent of our students enter the D.V.M. program without completing their bachelor’s degree first. The application deadline for the D.V.M. program is October 1—almost one full year in advance of the first semester in which you will enroll.

D.V.M. Application Procedure
You must submit your application for the next fall by October 1—nearly one year in advance. The college belongs to the national Veterinary Medical College Application Service (VMCAS), which means that you may use one application to apply to any of the veterinary colleges belonging to VMCAS. You may submit your application online at www.aavmc.org/vmcas.htm. If you have questions about the application, please call the college’s Academic and Student Affairs Office at 612-624-4747 or write to us at dvminfo@umn.edu.
Prerequisite Coursework
Following are the areas of study and number of semester credits required for admission to the College of Veterinary Medicine. If you plan to pursue a career in academia or research, you should consider additional courses in science and mathematics.

**Biology (13–20 credits)**
- General biology or plant biology ........................................... 3–5 credits with lab
- Zoology or animal biology .................................................. 3–5 credits with lab
- Genetics .............................................................................. 3–5 credits
  - Should include the mechanisms of heredity and their applications.
- Microbiology ...................................................................... 3–5 credits
  - An introductory course with lab that includes taxonomy,
  - morphology, physiology, and ecology of microbes.

**Chemistry (17–27 credits)**
- General chemistry with lab .................................................. 8–12 credits
- Organic chemistry with lab ................................................. 6 credits, two quarters or one semester
- Biochemistry with or without lab ........................................ 3–5 credits

**Liberal arts and humanities (12–18 credits)**
- History and social science ..................................................... 6–9 credits
  - Anthropology, economics, geography, history, political science,
  - psychology, social science, and sociology courses can usually be used to fulfill this requirement.
- Arts and humanities ............................................................. 6–9 credits
  - Art, literature, and music courses can usually be used to fulfill this requirement as can many humanities, theater, and foreign language literature courses.

**Mathematics (3 credits)**
- College algebra (with prerequisite high school higher algebra) or pre-calculus or calculus.

**Physics (8–12 credits)**
- Should include mechanics, heat, sound, light, electricity, fluids, and atomic structures, topics normally covered in an introductory sequence with laboratory.

**Writing skills (8 credits)**
- Students must satisfy the requirement for graduation at the college they are attending.

**Electives**
Electives may be selected based on your interests in a broad educational program. You’re encouraged to choose courses in the care and management of animals when available. Other recommended electives include courses in business management, animal nutrition, electronic communication, statistics, economics, and public speaking.

Profile of 2003 Successful D.V.M. Applicants

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>642</td>
</tr>
<tr>
<td>Resident</td>
<td>178</td>
</tr>
<tr>
<td>Non-resident</td>
<td></td>
</tr>
<tr>
<td>GPA in required courses (mean)</td>
<td>464</td>
</tr>
<tr>
<td>GPA last 45 semester credits (mean)</td>
<td>3.59</td>
</tr>
<tr>
<td>GRE Verbal and Quantitative: combined score (mean)</td>
<td>3.74</td>
</tr>
</tbody>
</table>

Evaluating Your Application
Your application will be evaluated on:
- GPA in required pre-veterinary courses
- GPA for the 45 most recent semester courses
- GRE score—all three areas
- Knowledge of the profession, interest in animals, and professional goals
- Employment experience, communications skills, leadership, and extracurricular activities
- A structured behavioral interview that helps identify if a career in veterinary medicine is the right choice for you. The college is one of the first to implement this, based on the recommendation of the veterinary industry, practitioners, and our faculty.

What It Costs
The cost of a veterinary education is an important financial investment. Here are the approximate costs for D.V.M. students during the 2003–2004 academic year.

**2003–2004 Yearly Tuition rates and estimated expenses**

<table>
<thead>
<tr>
<th>Category</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$15,410</td>
<td>$30,170</td>
</tr>
<tr>
<td>Health Insurance (if needed)</td>
<td>$1,000–$1,600</td>
<td>$1,182</td>
</tr>
<tr>
<td>Books, lab equipment, notes, dissecting set, and supplies</td>
<td>$2,000</td>
<td></td>
</tr>
</tbody>
</table>

Tuition and fees are subject to change without notice.

Fourth year veterinary students pay additional tuition for summer semester. The above expenses do not include living expenses, other incidental expenses, or the nonrefundable intent-to-enroll deposit of $250. If you enroll, the deposit is applied to your first semester’s tuition. For more information, call the Academic and Student Affairs Office at 612-624-4747 or write to Dvminfo@umn.edu.

Residency
Minnesota residents receive priority consideration for admission and are charged a lower tuition rate than non-residents that are admitted to the program. To qualify for resident status, you must live in Minnesota for at least one calendar year before the application deadline of October 1. For more information, contact the Resident Classification and Reciprocity Office by calling 612-625-4733 (St. Paul) or 612-625-6330 (Minneapolis) or by writing to 130 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108 or 240 Williamson Hall, 231 Pillsbury Drive S.E., Minneapolis, MN 55455.
Reciprocity
The University has reciprocity agreements with North Dakota, South Dakota, and Manitoba. If you’re a resident of these states or this province, you may qualify for reciprocity tuition rates, which are comparable to resident rates. For more information, contact the Resident Classification and Reciprocity Office by calling 612-625-4733 (St. Paul) or 612-625-6330 (Minneapolis) or by writing to 130 Coffey Hall, 1420 Eckles Avenue, St. Paul, MN 55108.

Financial Aid
Veterinary students may apply for federal Ford loans ($8,500/year limit) and health professions loans (amount based on need) for financial assistance. The University of Minnesota uses the Free Application for Federal Student Aid (FAFSA) as its needs analysis form. Students are encouraged to use the Web site for the FAFSA application found at [www.FAFSA.ed.gov](http://www.FAFSA.ed.gov). All applicants to the D.V.M. program are considered independent financial aid filers, and parental income does not play a role in determining financial need, regardless of the applicant’s age. The FAFSA Web site is available after January 1 each year but students should complete their federal tax return before submitting their FAFSA. The code number for the University of Minnesota is 003969.

Financial aid for all veterinary medicine students is administered by the Office of Student Finance, University of Minnesota, 210 Fraser Hall, 106 Pleasant Street S.E., Minneapolis, MN 55455. Second, third, and fourth year students may also compete for more than $100,000 in awards and scholarships presented at the college’s spring awards ceremony.

We’re Here for You
Student Services
If you have questions, we’ve got answers. If you need someone to talk to, we’re here for you. If you’re looking for an extracurricular activity, we can hook you up. Here are some of the services and programs we can provide.

- **Planning your educational program**—We host regularly scheduled information sessions, which provide an opportunity for you to visit campus and learn more about our degree programs, selection criteria, and application procedures and to take a tour of the college. To schedule a visit call the Academic and Student Affairs Office at 612-624-4747 or write to dvminfo@umn.edu. If these sessions do not meet your needs or if you need more information we will arrange a meeting with an admissions counselor.

- **Maintaining your student records**—The Academic and Student Affairs Office maintains records on admissions, registration, scholastic standing, and degree requirements.

- **Finding a mentor**—Veterinary professionals can be a tremendous resource for you. That’s why we offer a formal mentor program for D.V.M. students. In addition, each of the four classes has a faculty adviser who can answer your questions and help guide your educational experience.

- **Financing your education**—Finding the financial resources to fund your education is an important aspect of pursuing a veterinary program. The Office of Student Finance (financial aid) can provide answers, along with on-site financial aid counseling in the College of Veterinary Medicine at the start of each semester. The Academic and Student Affairs Office can provide information on scholarships.

- **Providing support to student organizations**—The Academic and Student Affairs Office provides administrative assistance to faculty advisers and student organizations.

“I am impressed with how student-friendly this college is! I feel as though our input is truly valued by the college. The administrators and clinicians treat the students as colleagues, rather than as mere students.”

Lizz, Class of 2004
Austin, TX
Student Organizations

Participation in student organizations can help create a rich and satisfying learning experience, while helping you establish a network of peers and friends that you’ll carry with you through your career. As a veterinary student, you may participate in the following organizations:

• Behavior Club
• Canine Club
• Production Animal Medicine Club
• Holistic Medicine Club
• Equine Club
• Feline Club
• Sheep, Goat, and Llama Club
• Zoo, Exotic, Avian, and Wildlife Club
• Veterinary Medicine Business Club
• Emergency and Critical Care Society

Looking for leadership or governance opportunities? Get involved in the following organizations:

• The CVM Student Council
• The Student Chapter of the American Veterinary Medical Association
• The St. Paul Campus Board of Colleges
• Honor Case Commission

Housing Information

Need a place to live? Maybe we can help. Check out our Roommates Connection, a listing of students wanting to share a place to live with other veterinary students. The Office of Academic and Student Affairs also has a listing of apartments for rent, giving you a place to start your housing search. This information is sent to the newly admitted D.V.M. students in the late spring.

An additional resource is the University’s off-campus housing site at [www.umn.edu/housing/offcampus.html](http://www.umn.edu/housing/offcampus.html). The University maintains two family housing sites, one on the St. Paul campus. The Housing and Residential Life home page can be found at [www.umn.edu/housing](http://www.umn.edu/housing).

After Graduation: Staying Connected

Continuing Education

Your education doesn’t stop once you receive your degree. You’ll want to expand your knowledge and skill base through continuing education. The University of Minnesota College of Veterinary Medicine offers a wide variety of learning opportunities for you to hone your skills, expand your horizons, and maintain your professional licensure. Our continuing education programs offer an opportunity to

• Hear nationally and internationally known experts lecture on different fields of veterinary medicine.
• Learn about new concepts, recent research developments, and innovative clinical procedures.
• Build relationships with practicing veterinarians and with academia and industry representatives.

Continuing education courses are also open to our students. Courses are held in the Twin Cities metro area. Visit [www.cvm.umn.edu/outreach](http://www.cvm.umn.edu/outreach) or call 612-624-2268 or 1-800-380-8636 to learn about upcoming learning opportunities.

Alumni and Friends

Once you receive your degree from the University, that doesn’t mean your relationship with the college has to end. In fact, all graduates are members of our Alumni and Friends Society, which promotes interest and support for the College of Veterinary Medicine, encourages communication and cooperation among alumni, and advises the dean on the dispersal of undesignated gifts to the college. The society’s activities include an award-winning mentor program, a senior reception, international externships, undergraduate research, a senior directory, student council awards, alumni receptions, and an alumni newsletter.
The D.V.M. Curriculum

The Learning Curve

• During the first year you will learn about the structure and function of normal animals. You will also begin your clinical training.

• During the second year you will focus on infectious agents and the cause of disease. You will also begin to learn about disorders of organ systems and the treatment of these disorders. This will include your first surgery labs.

• The third year will conclude your classroom learning of organ system disorders. You will also start to focus heavily on the species of most interest to you in advanced courses.

• The fourth year puts into practice the knowledge, skills, and behavior that you have learned in the classroom. You will choose hands-on rotations that focus on your specific areas of interest.

The college’s four-year curriculum is based on standards established by the Council on Education of the American Veterinary Medical Association. Course requirements for the first three years are similar for all members of a class. The curriculum offers flexibility in scheduling, a highly integrated approach to course topics, clinical coursework early in the program, and opportunities for students to develop professional practice skills before the fourth-year clinical rotations. The fourth-year clinical rotations offer students flexibility in selecting topics to be included in the final phase of their D.V.M. program. A breakdown of the program follows:

First Year

**Fall Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVM 6000</td>
<td>Orientation to Veterinary Medicine</td>
<td>1</td>
</tr>
<tr>
<td>CVM 6011</td>
<td>Professional Skills</td>
<td>2</td>
</tr>
<tr>
<td>CVM 6021</td>
<td>Overview of Animal Populations I</td>
<td>1</td>
</tr>
<tr>
<td>CVM 6100</td>
<td>Veterinary Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>CVM 6101</td>
<td>Normal Radiographic Anatomy</td>
<td>1</td>
</tr>
<tr>
<td>CVM 6110</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CVM 6111</td>
<td>Cells and Tissues</td>
<td>3</td>
</tr>
<tr>
<td>CVM 6301</td>
<td>Clinical Skills I</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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**Spring Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CVM 6012</td>
<td>Professional Skills</td>
<td>2</td>
</tr>
<tr>
<td>CVM 6022</td>
<td>Overview of Animal Populations II</td>
<td>1</td>
</tr>
<tr>
<td>CVM 6112</td>
<td>Organology</td>
<td>3</td>
</tr>
<tr>
<td>CVM 6120</td>
<td>Veterinary Neurobiology</td>
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</tr>
<tr>
<td>CVM 6130</td>
<td>Veterinary Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CVM 6141</td>
<td>Veterinary Pharmacology</td>
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</tr>
<tr>
<td>CVM 6201</td>
<td>Host Defenses</td>
<td>3</td>
</tr>
<tr>
<td>CVM 6211</td>
<td>Applied Veterinary Genetics</td>
<td>1</td>
</tr>
<tr>
<td>CVM 6302</td>
<td>Clinical Skills II</td>
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</tr>
<tr>
<td>CVM 6441</td>
<td>Behavior Core</td>
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Second Year

**Fall Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CVM 6013</td>
<td>Professional Skills III</td>
<td>2</td>
</tr>
<tr>
<td>CVM 6102</td>
<td>Infectious Agents: Parasitology</td>
<td>4</td>
</tr>
<tr>
<td>CVM 6103</td>
<td>Infectious Agents: Bacteriology</td>
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<tr>
<td>CVM 6104</td>
<td>Infectious Agents: Virology</td>
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<tr>
<td>CVM 6105</td>
<td>Infectious Agents: Pharmacology</td>
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</tr>
<tr>
<td>CVM 6220</td>
<td>Clinical Epidemiology</td>
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<tr>
<td>CVM 6100</td>
<td>Veterinary Pathology</td>
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<tr>
<td>CVM 6103</td>
<td>Clinical Skills III</td>
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<td><strong>Total</strong></td>
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**Spring Semester**

<table>
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<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>CVM 6014</td>
<td>Professional Skills IV</td>
<td>2</td>
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<tr>
<td>CVM 6102</td>
<td>Veterinary Imaging I</td>
<td>2</td>
</tr>
<tr>
<td>CVM 6132</td>
<td>Reproductive Biology</td>
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</tr>
<tr>
<td>CVM 6142</td>
<td>Veterinary Neuropharmacology</td>
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<tr>
<td>CVM 6104</td>
<td>Clinical Skills IV</td>
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</tr>
<tr>
<td>CVM 6121</td>
<td>Surgery, Anesthesia, Critical Care</td>
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<tr>
<td>CVM 6400</td>
<td>Diseases of Skin and Adnexa</td>
<td>3</td>
</tr>
<tr>
<td>CVM 6430</td>
<td>Cardiopulmonary System Diseases</td>
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<tr>
<td>CVM 6444</td>
<td>Ophthalmology</td>
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<tr>
<td>CVM 6460</td>
<td>Urinary Systems Disorders</td>
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<tr>
<td>CVM 6480</td>
<td>Obstetrics and Reproductive Diagnostics</td>
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**Intersession**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CVM 6840</td>
<td>Swine Core</td>
<td>2</td>
</tr>
<tr>
<td>CVM 6880</td>
<td>Avian Core</td>
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<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

“I love living in the Twin Cities area because everything you would ever want to do in a city is available out your front door, yet it only takes 15 or 20 minutes to arrive in the countryside for camping, hiking and canoeing.”

Michelle, Class of 2005
Asheville, NC
Third Year

Fall Semester
CVM 6103 Veterinary Imaging II 2
CVM 6195 Veterinary Toxicology 3
CVM 6305 Clinical Skills V 1
CVM 6410 Digestive System 5
CVM 6420 Musculoskeletal System Diseases 2
CVM 6451 Metabolic Disorders 3
CVM 6470 Multisystemic Diseases 3
CVM 6483 Reproductive Diagnostic Techniques 1
Total ................................................................................................................. 22

Spring Semester
CVM 6030 Public Health 2
CVM 6031 International Diseases 1
CVM 6042 Practice Management/Law and Ethics 2
CVM 6494 Small Animal Anesthesia Core 1
CVM 6495 Non-Traditional Pets 1
Total ................................................................................................................. 7

In addition to the above spring semester requirements, students are required to
• participate in either a small or large animal hospital practicum.
• take at least 12 credits from the Required Elective Choices list. Elective choices are based on the
  selected track.
• successfully complete three clinical rotations.

Students must take at least 16 elective credits (with at least 12 during spring of year three). These credits
can be in any combination from the Required Elective Choices and Optional Elective Choices lists. Credits
taken during Intersessions also apply towards this requirement.

Required Elective Choices:
CVM 6104 Small Animal Special Procedures in Radiology 1
CVM 6136 Small Animal Nutrition 1
CVM 6138 Advanced Block 2.5
CVM 6306 Small Animal Clinical Skills Advanced Block 1
CVM 6404 Small Animal Dermatology Advanced Block 1
CVM 6414 Small Animal Liver and Pancreas Disorders Advanced Block 1
CVM 6424 Small Animal Orthopedic Advanced Block 1
CVM 6434 Critical Care Advanced Block 1
CVM 6436 Small Animal Cardiology 1
CVM 6442 Small Animal Behavior 1
CVM 6461 A Clinician’s Analysis of Urinalysis 1
CVM 6464 SA Urinary Systems Disorders: Case Based Discussion 1
CVM 6482 Reproductive Diseases of Small Animals 1
CVM 6497 Avian Medicine and Surgery 1
CVM 6685 Small Animal Diagnostic Technique Lab 1
CVM 6702 Large Animal Palpation Labs 1
CVM 6704 Reproductive Diseases of Food Animals 2
CVM 6720 Problem Solving in Equine Medicine 1
CVM 6727 Equine Palpation Lab 1
CVM 6728 Reproductive Diseases of the Horse 1
CVM 6730 Equine Advanced Elective 3
CVM 6731 Equine Advanced Elective: Surgical Supplement 1
CVM 6790 Advanced Small Ruminant Practice 1
CVM 6791 Advanced Small Ruminant Practice Lab 1
CVM 6793 Small Ruminant Reproduction .5
CVM 6800 Bovine Palpation Lab 1
CVM 6801 Dairy Production Medicine 1
CVM 6802 Large Ruminant Clinical Elective 3
CVM 6803 Advanced Bovine Practice Lab 2
CVM 6805 Food and Exotic Large Animal Anesthesia .5
CVM 6841 Swine Behavior 1

Optional Elective Choices:
CVM 6050 Perspectives: Interrelationships of People and Animals in Society 2
CVM 6307 Clinical Skills Elective 1
CVM 6443 Preparing and Teaching Puppy Classes 1.5
CVM 6481 Obstetrics Lab 1
CVM 6545 Introduction to Regulatory Medicine 2
CVM 6690 Integrative Medicine 2.5
CVM 6718 Large Animal Community Based Practice Mentoring 1
CVM 6721 Neonatology 1
CVM 6722 Clinical Anatomy of the Equine Limb 1
CVM 6930 Medical Management of Zoo Animals 1
CVM 6934 Selected Topics in Zoo Animal Medicine 5

12 The D.V.M. Curriculum
Fourth Year (Summer, Fall, and Spring)

You’ll begin by selecting a specific track. Each track has specific requirements, allowing us to create specialized learning experiences for you.

- Small animal—companion animals consisting mostly of cats and dogs.
- Food animal—bovine (dairy and beef), swine, and small ruminants
- Equine—for those wishing to be strictly equine veterinarians
- Mixed—a combination of small animal, food animal, and equine courses and rotations
- Interdisciplinary—for those wishing to do research, public health, etc.

All students are required to

- Participate in either a small or large animal hospital practicum.
- Successfully complete 25 clinical rotations (to bring total clinical rotations to 28).

Clinical Rotations

Clinical rotations occur in 28 two-week blocks. The rotations include

- 10 blocks of core clinical courses in medicine, surgery, public health, necropsy, anesthesiology, and radiology (required for all tracks)
- 3–5 two-week externships or rotations at other institutions, which occur off campus (required for all tracks except the interdisciplinary track)
- 7 selected rotations based on the track requirements (except the interdisciplinary track)
- 6–8 elective rotations or 18 electives for the interdisciplinary track

Students can choose from the following rotations to create their schedule:

Comparative Services
Advanced Public Health
Clinical Hematology, Cytology, and Microbiology
Comparative Anesthesiology
Comparative Ophthalmology
Comparative Radiology
Large Animal Anesthesia
Minnesota Zoological Medicine
Necropsy
Private Practice Preparedness
Raptor Center
Veterinary Public Health
Veterinary Acupuncture

Equine
Equine Dentistry
Equine Lameness
Equine Podiatry
Equine Sports and Preventive Medicine
Equine Surgery
Equine Theriogenology Introduction
Equine Theriogenology Advanced
Large Animal Diagnostic Ultrasonography

Food Animal
Advanced Building Design
Advanced Feedlot Herd Health
Applied Dairy Nutrition
Biosecurity (Dairy Disease/Treatment Protocols)
Biosecurity in the Poultry Industry
Bovine Surgery
Cow Calf Herd Health and Production
Dairy Palpation
Dairy Record Analysis, Epidemiology and Economics
Epidemiology and Biostatistics
Farm Animal Reproduction and Delivery Management
Mastitis Milking Machines and Milk Quality
Ruminant Nutrition
Swine Records
Small Ruminant Health and Production
Swine Disease Diagnostics, Therapeutics, and Prevention
Swine Economics, Financial Management, and Marketing
Swine Production Systems
Swine Production Training
Transition Dairy Cow Management and Clinical Care
Young stock and Dairy Production Medicine

“The program gets students into the clinics, receiving hands-on medical experience with animals—both large and small—right away during the first year.”

Angie, Class of 2006
Crystal, MN

Large Animal
Large Animal Medicine
Large Animal Surgery
“There are so many great things about this vet school! The integrated curriculum is awesome and helps students learn topics well once as opposed to simply memorizing them over and over again.”

Melissa, Class of 2005
Richfield, MN

Academic Policies

Academic Calendar
The University follows a semester schedule, with fall semester beginning in September, spring semester beginning in January, and summer semester beginning in May. The college offers required and elective courses during its intersession at the end of the first and second years of the D.V.M. program.

Access to Educational Records
Information about a student generally may not be released to a third party without the student’s permission. (Exceptions under the law include state and federal educational and financial aid institutions.) Some information—name, address, e-mail address, telephone number, dates of enrollment, and enrollment status (full-time, part-time, not enrolled, withdrawn, and date of withdrawal), college and class, major, adviser, academic awards and honors received, and degrees earned—is considered public or directory information. You can prevent the release of public information by notifying the records office on your campus.

You have the right to review your educational records and to challenge their contents. To learn more about this process, visit www.onestop.umn.edu/Grades/gradereporting/privacy.html, write to the Registrar at 200 Fraser Hall, Minneapolis, MN 55455, or call 612-624-1111. You can also contact the records office on other campuses of the University.

Animal Use
The college uses animals in the D.V.M. curriculum to illustrate medical principles and provide students with critically needed firsthand experience in the art of veterinary medicine and surgery. The animals are treated with dignity and genuine concern for their welfare. In some cases, they eventually must be euthanized in accordance with the Animal Welfare Act.

Finding humane and effective alternatives to animal use is a college priority. The college continually evaluates how it teaches clinical skills, and continues to add to the progress it already has made in refining, reducing and sometimes eliminating animal use in its courses. Among other improvements, the college has developed an innovative partnership with the local humane society, under which students can get extensive experience in neuter and spay surgeries to make the animals more adoptable. Students may serve on the college’s animal use committee that considers new alternatives while preserving the effectiveness of the educational process.

At the same time, the college wants to make sure prospective students know that the D.V.M. curriculum requires learning experiences with both live and cadaver animals. The University’s animal care committee reviews all courses and determines the appropriateness of using animals in each course.

Attendance and Examinations
You’re expected to attend all scheduled classes and instructional sessions unless they are specifically identified as optional. If you need to miss a class, you’re responsible for all material presented in the course whether or not the material is included in notes or other printed materials. You have a responsibility to inform the instructor if you must miss a scheduled examination, quiz, or deadline for anything that will count toward your grade. Requests for individual rescheduling of examinations or assignment deadlines must be approved by the instructor. For more information about the policy on attendance and examinations, contact the Office of Academic and Student Affairs.
Catalog Use
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This catalog is available online at www.catalogs.umn.edu/vetmed/index.html.

Degree Requirements
The doctor of veterinary medicine degree is awarded following the satisfactory completion of the four-year professional curriculum with a grade point average of 2.00 or above.

The Ph.D. or M.S. degrees are awarded according to the Graduate School policies.

D.V.M. Honor System
An honor system operates on the assumption that students are honest. That’s why students, rather than faculty, monitor examinations. Students are trusted not to give or receive aid during examinations and are responsible for their own honesty.

The Honor Case Commission, composed of students elected from the four classes, confidentially considers reports of suspected acts of dishonesty during examinations. The commission may request a hearing to determine if scholastic dishonesty has occurred. If so, four faculty representatives are selected by the dean and the Faculty Council to form a Student-Faculty Honor Case Commission that will participate in the hearing. If they determine that the student involved is guilty, an appropriate penalty will be determined and referred to the dean for implementation. In addition to the Honor Code the College of Veterinary Medicine expects its students to abide by the University of Minnesota’s Student Conduct Code.

D.V.M. Readmission
As a D.V.M. student, if you’re dropped from the program, you need permission of the Admissions and Scholastic Standing Committee to be reinstated. Credits earned at other institutions during suspension will not apply toward graduation from the University unless advance permission is received from the Admissions and Scholastic Standing Committee. Readmission to the college is at the discretion of the Admission and Scholastic Standing Committee with consent of the faculty.

If readmission is granted, the Admissions and Scholastic Standing Committee will determine the courses to be repeated and the level of performance that must be achieved. Failure to achieve these requirements will result in permanent dismissal from the professional curriculum. If permitted to return, you will be placed on probation and may be dropped at any time if your work is unsatisfactory.
D.V.M. Scholastic Requirements

You must maintain a grade point average (GPA) of at least 1.50 for any single semester and earn a passing grade in each course. If you fail to achieve a GPA of at least 1.50 or receive a grade of F or N (no credit) in any single semester in a required course or clinic rotation, you will be dropped from the professional curriculum.

If you have a semester GPA lower than 2.00, you will be placed on probation. You will not be allowed to proceed from one semester to the next on academic probation for more than three semesters. If your semester GPA is less than 2.00 four times during any block of five consecutive semesters, you'll be dropped from the professional curriculum. You must achieve a GPA of 2.00 at the end of each academic year to continue in the professional curriculum and to earn the D.V.M. degree.

If you've completed a course or courses similar or identical to those required in the D.V.M. curriculum, you can petition the Admissions and Scholastic Standing Committee to substitute for that requirement. Forms for this purpose are available in the Academic and Student Affairs Office, 460 Veterinary Teaching Hospital.

Equal Opportunity

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status or sexual orientation.

Questions about compliance may be directed to Julie Sweitzer, director, Office of Equal Opportunity and Affirmative Action, University of Minnesota, 419 Morrill Hall, 100 Church Street S.E., Minneapolis, MN 55455; 612-624-9547.

Equipment

As a D.V.M. student you will be required to have a computer that meets minimum specifications announced at the time of admission. In addition to a computer and textbooks, you'll need to purchase certain special items of clothing, some medical instruments, and other learning tools.

Grading and Transcript Policy

The University has two grading systems, A-B-C-D-F (with pluses and minuses) and S-N. You may receive grades only from the grading system under which you have registered for a course.

Each campus, college and department determines to what extent and under what conditions each grading system is used, may specify what courses or proportion of courses must be on one system or the other, and may limit a course to either system.

The University's official transcript, the chronological record of your enrollment and academic performance, is released by the University only at your request or in accordance with state or federal statutes; mailed copies have the University's official seal printed on them. You may obtain an unofficial transcript, except when you have a transcript hold on your record.

To learn more about grading and transcript policies, www.onestop.umn.edu

Grievance Procedures

Grievances or appeals may be filed through procedures that conform to the principles of fairness and accessibility defined in the University Senate Statement on Academic Freedom and Responsibility. Grievances must be presented in accordance with the regulations of the University Senate and the procedures established by the college. Grades are determined by the course coordinator and department chair and are not grievable.

Immunization

Students born after 1956 who take more than one University class are required under Minnesota law to submit an Immunization Record.

Registration

If you're a D.V.M. student you'll receive complete registration information from the Office of Academic and Student Affairs each term.

M.S/Ph.D. students will register online each term according to the requirements of their program and the Graduate School.