Ideal Attributes for Graduates of the DVM Program

Approved by the CVM faculty on 1/20/2005

Educational Plan For the College of Veterinary Medicine, Washington State University

A. The CVM seeks to graduate students who will be known for their knowledge base:

WSU graduates should understand the scientific basis of veterinary medicine and apply that understanding to veterinary practice. They should comprehend disease at a molecular, cellular, systemic, individual, and population level. They should have a comprehensive knowledge of the body as an intact organism and of its major organ systems. They should understand the principles of homeostasis, the processes of aberrant growth, the modes of infection and disease transmission, the responses to stress, injury, and general or basic behavioral traits of animals. They should also have a foundation in nutrition, immunology, reproduction and development, pharmacology and toxicology, genetics, epidemiology, preventative medicine and population health. They should have a comprehensive grounding in comparative biology between animal species.

WSU graduates should expertly combine their understanding of these diverse biomedical areas into the effective medical management and treatment of sick animals, as compromised by disease, trauma, or other health-related issues. They should understand the etiology, pathogenesis, and time course of common diseases, and the clinical, laboratory, radiographic and pathologic manifestations of diseases and injury. They should incorporate modern diagnostic and therapeutic modalities into their practice. They should know how to find and use medical information. They should engage in lifelong learning to remain current in their understanding of the scientific basis of veterinary medicine. They should be knowledgeable about risk factors for disease and injury. They should use this diversity of knowledge to help maintain the wellness of individuals and populations of animals. They should promote the health of animals and the public through client and public education, service, and action.

WSU graduates should be aware of and conversant in the benefits of the animal–human bond and the contributions that animals make to the well being of humans. They should be knowledgeable of animal–related disease threats to human health, including environmental factors and potential biosecurity issues. WSU graduates should recognize the breadth of the veterinary discipline, and especially understand the important and diverse roles that animals play in the health, economics, food-supply, recreation, and well being of mankind.

WSU graduates should understand that the DVM degree is an entry-level degree and that, in order to function effectively as a seasoned veterinarian or as a specialist, they will need to invest considerable additional educational time and efforts.

Upon completion of the DVM curriculum, graduates of the College of Veterinary Medicine should have the following KNOWLEDGE BASE:

Knowledge of Disease that includes:

i) Understanding the normal structure and function of the body as an intact organism

ii) Understanding the molecular, biochemical, and cellular mechanisms important in maintaining the body’s homeostasis and normal function

iii) Comprehending disease at the molecular, cellular, systemic, individual and population level

iv) Understanding the various etiologies of disease including metabolic, nutritional, traumatic, degenerative, toxic, infectious, parasitic, immune, neoplastic, genetic and developmental; their causes, and the clinical reasoning that allows a distinction to be made between them

v) Understanding the altered pathology and pathophysiology of the body and its major organ systems with various disease conditions

vi) Understanding the processes of disease transmission for common diseases and of common environmental determinants of disease

Foundation Principles of Animal Wellness and Health Maintenance that includes:

i) Understanding adequate nutrition and normal eating patterns, including differences by age and disease state

ii) Understanding healthy growth patterns, especially as they apply to food animals

iii) Understanding common immunizations protocols

iv) Understanding normal theriogenology and animal husbandry

v) Understanding the risk factors for animal disease and injury and common practices for their prevention and the ability to effectively communicate these risk factors to clients
vi) Understanding the principles of population health and epidemiology, especially as they relate to multiple animal units

vii) Understanding the appropriate tests for detecting animals or groups of animals at risk for specific diseases or in the early stage of disease, and of strategies for responding appropriately

**Principles of Diagnosis, Medical Management and Treatment that include:**

i) Understanding how to find and use medical knowledge, and of the application of the scientific method to clinical reasoning, diagnosis, and data evaluation

ii) Understanding the most frequent clinical, laboratory, radiographic and pathologic manifestations of common animal diseases, and the appropriate selective use of these and other diagnostic procedures in diagnosis strategies; the ability to interpret the results of commonly used diagnostic procedures; and a working knowledge of the correct collection, storing and handling of diagnostic samples

iii) Understanding general or basic behavior traits across species and of behavioral responses to disease and trauma

iv) Understanding medications and pharmaceuticals commonly used in practice including their contraindications, side effects, incompatibilities, and withdrawal times. They should be able to accurately and consistently calculate drug dosages

v) Understanding routine surgical procedures, suture materials and suturing patterns, tissue handling techniques for surgical procedures and wound repair, and anesthesia, including techniques for its monitoring

Understanding the healing process following injury, surgery or other invasive procedures

Understanding the responses to injury, pain, and stress

**Effective Client Communication skills that include:**

i) Understanding communication and its impact on the successful functioning of a veterinarian

ii) Understanding the use of animals in sport, recreation, agriculture, research and industry, with an appreciation for animal ownership from a variety of client perspectives

iii) Understanding the nature of the animal-human bond and the contributions that animals can make to human health and well-being, and an appreciation of what being an animal owner entails

iv) Ready recognition of common animal species and/or breeds

v) Cognizance of common non-traditional therapies and the ability to evaluate evidence of their effectiveness

**A Knowledge Base for Public Health that includes:**

i) Understanding disease transmission between animals and humans and other animal disease threats to human health, including environmental–based and food–borne diseases and drug residues; possessing the working knowledge to effectively communicate these occupational hazards to clients and staff

ii) Understanding of approaches to the control of animal-animal and animal-human disease transmission

**Introductory Knowledge of Veterinary Business Practice that includes:**

i) A general understanding of the working environment of a typical veterinary practice, with an introductory level of knowledge of small business management and economics

ii) A practical knowledge of regulatory law

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8. The CVM seeks to graduate students who will be known for their skill:

WSU graduates should be clinically and professionally skilled in providing care to both individuals and populations of animals. They should be able to obtain from their clients an accurate history, to safely and humanely handle and restrain animals for examination, and to perform complete, as well as limited organ system specific, physical examinations. They should be skillful and knowledgeable to obtain the necessary diagnostic evaluations. They should be proficient in diagnostic reasoning, in developing problem lists and differential diagnoses, and to reason deductively and critically to solve clinical problems. From such analyses, they should be able to develop appropriate clinical management and therapeutic strategies for a patient. They should be technically competent in common clinical and surgical procedures, as well as in the administration of anesthetics and therapeutics. They should be compassionate and skillful in relieving pain and in implementing euthanasia.

WSU graduates should have the range of interpersonal skills to communicate effectively and establish rapport with clients,
colleagues and staff. They should be able to discuss clinical options with their clients in an honest, compassionate and objective manner. They should be able to recognize when their knowledge or skills are limiting, must know how to seek information, and should have the wisdom to seek referral when necessary. WSU graduates should have the skills and attitude to seek out, critically evaluate and appropriately use new knowledge. They should have the skills and commitment to remain current in their biomedical knowledge and clinical skills.

Upon completing the DVM curriculum, graduates of the CVM should have the following SKILL SETS:

- The ability to reason deductively and critically to solve problems
- The interpersonal skills to communicate effectively, both orally and in writing, and to establish rapport with clients, colleagues, and staff
- The ability to effectively listen to and elicit from a client the full history of the patient (This skill requires not only familiarity with medical terminology, but also with lay terminology, expressions, and descriptions.)
- The ability to safely, correctly and humanely restrain animals for examination
- The ability to perform both a complete and an organ system–specific physical examination, including the assessment of behavioral manifestations of disease and trauma (This skill requires an appreciation for when to avoid focusing the examination prematurely.)
- The ability to perform routine technical procedures including venipuncture, intravenous catheterization, inserting a naso/oral gastric tube, thoracocentesis, collecting cerebrospinal fluid, inserting a urinary catheter, rectal palpation, and aspirating fluids and collecting other samples for laboratory testing and the ability to teach others to help them perform these skills – i.e. a veterinarian must also be a teacher.
- The ability to appropriately select and interpret common diagnostic procedures and to perform routine hematological and microbiological analyses, urinalysis, simple pathological evaluations, semen analysis, and common radiographic and other imaging procedures
- The ability to develop problem lists and differential diagnoses, to correlate clinical signs with appropriate organ systems, and to resolve clinical problems by logical reasoning and the application of the principles of evidence–based medicine
- The ability to develop appropriate clinical management and therapeutic strategies for each patient after a thoughtful analysis of the full array of available information
- The ability to recognize patients with immediately life threatening conditions and to institute appropriate therapy
- The ability to perform routine surgical procedures including handling and suturing wounds and lacerations, surgery to remove foreign bodies, spaying and neutering, and administering anesthetic agents
- The skills essential for the administration of therapeutics by commonly utilized routes
- The common clinical skills and competencies for animal reproduction and neonatal care
- The clinical acumen to appropriately monitor progress as needed either by direct observation or client communication, and to adjust therapy and diagnosis according to results
- The ability to recognize when their veterinary knowledge and skill is limited and the wisdom and integrity to seek consultation and referral
- The ability and knowledge to recognize and to relieve pain and ameliorate the suffering of animals
- The ability to identify the circumstances when euthanasia is an appropriate option, to effectively and compassionately communicate the range of options to the client and, as appropriate, implement euthanasia under compassionate conditions for the animal and client
- The competence to identify and suggest approaches to help prevent disease and trauma in individual and groups of animals, including the ability to conduct an environmental assessment for hazards including toxic chemicals and plants
- The ability to create, maintain and use accurate and legible medical records
- A competence in information technology to be able to access and retrieve from electronic databases and other resources accurate biomedical information, diagnostic strategies, and medical records
- The skills to gain and appropriately use new information, and to remain current with emerging biomedical knowledge and therapeutic options
- The ability to critically examine new knowledge, with an understanding of the basic concepts and principles of scientific investigation in the biomedical sciences

C. The CVM seeks to graduate students who will be known for their compassion, intellectual honesty, trustworthiness, and ethical behavior:

WSU graduates should bring to the study and practice of veterinary medicine those character traits, attitudes, and values that underpin high quality veterinary care. At all times, treatment of animals by our students and our graduates must be humane. They should strive to meet the health needs and well being of their patients.

WSU graduates should compassionately and empathetically serve and respect their clients without regard to clients' beliefs, values, ethnicity, gender, sexual orientation, or economic status. They should have concern and be advocates for the welfare of their clients and their clients' community, particularly in the areas of public health and safety.

WSU graduates should be trustworthy and truthful in all professional dealings. They should be committed to the constant...
improvement of their own knowledge of veterinary care, be self-assessing and reflective of their knowledge and skill level, and be open to change and new ideas. They should be committed to working collaboratively with other veterinarians, other health care professionals, and community and regulatory agencies; they should value professional interaction in this area; and should develop a global perspective on the role of veterinary medicine. They must recognize, accept, and adopt the ethical precepts of the veterinary profession and their obligations under the law.

Over the course of the DVM curriculum, a graduate of the CVM should have exhibited the following PROFESSIONAL CHARACTERISTICS:

- Related to instructors, classmates, staff, clients and their animals with honesty, compassion, empathy, and dedication
- Did not allow considerations of religion, ethnicity, gender, sexual orientation, politics or social standing to preclude productive and constructive relationships with instructors, staff, classmates, or clients
- Exhibited sufficient behavioral and emotional health to fully utilize his/her intellectual ability, to exercise good judgment, to complete patient care responsibilities promptly and properly, and to relate to patients, their owners and their animals with courtesy, compassion, integrity, maturity, and respect for their dignity
- Evidenced the emotional intelligence to examine and modify personal attitudes, perceptions, and stereotypes that may negatively impact patient care and interpersonal relationships
- Behaved and presented themselves in a professional manner in spite of stressful work demands, changing environments, and clinical uncertainties
- Demonstrated the ability to work collaboratively and flexibly as a professional team member
- Tolerated conflicting ideas, and exhibited an openness and flexibility to accept change
- Demonstrated the moral fiber to never compromise care of an animal for which they were responsible, regardless of whether this care conflicted with personal schedules or activities
- Did not overtly engage in educational activities or patient care duties while under the influence of alcohol or non-prescribed, illicit drugs. In addition, the student did not engage in patient care duties while impaired in any manner by any substance (i.e., even prescribed drugs that are known to impact performance)
- Used the authority, special privileges, and trust inherent in the veterinary student–client relationship solely for the benefit of both the client and the patient and avoided behaviors that constitute misuse of this power

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