

Competency-Based Veterinary Education: **Competency Framework**



CBVE: Competency Framework

The CBVE Competency Framework consists of nine domains of competence, each representing a group of related abilities necessary for veterinary graduates.

Associated with each domain is a list of competencies, all of which are considered core for veterinary graduates. The CBVE Competency Framework consists of 32 competencies, some of which lend themselves to assessment in the clinical context, while others may be best assessed in the pre-clinical curriculum.

To better describe each competency, illustrative subcompetencies are provided, which may be modified or refined by individual programs. Subcompetencies are more granular than

competencies and can be used to develop course or rotation objectives and assessments or used to highlight specific areas of focus that align with a program's mission, context, or culture (see Implementation Strategies, page 82).

The competency framework should be the scaffold on which the curriculum and assessments are built. Learners should be assessed longitudinally across the program for each competency to ensure that graduates have achieved the necessary outcomes by the time of graduation. The CBVE Competency Framework guides teaching and learning to prepare graduates for successful careers in the veterinary profession.

CBVE: Domains of Competence

1		Clinical Reasoning and Decision-making
2		Individual Animal Care and Management
3		Animal Population Care and Management
4		Public Health
5		Communication
6		Collaboration
7		Professionalism and Professional Identity
8		Financial and Practice Management
9		Scholarship



DOMAIN 1

Clinical Reasoning and Decision-making

The graduate demonstrates critical thinking and problem solving to arrive at evidence-based decisions that consider animal and client needs, available resources, and social context.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
1.1	Gathers and assimilates relevant information about animals	<ol style="list-style-type: none"> 1. Collects history 2. Performs physical examination 3. Interprets diagnostic test results 4. Performs necropsy examination
1.2	Synthesizes and prioritizes problems to arrive at differential diagnoses	<ol style="list-style-type: none"> 1. Identifies problems 2. Creates refined problem list 3. Prioritizes differential diagnoses
1.3	Creates and adjusts a diagnostic and/or treatment plan based on available evidence	<ol style="list-style-type: none"> 1. Appraises available clinical information and acts accordingly despite uncertainty 2. Explains justification for plan 3. Re-evaluates animal or population in a timely manner to adjust plan 4. Uses critical thinking to determine appropriate action when unexpected outcomes occur (e.g., complications, changed diagnosis)
1.4	Incorporates animal welfare, client expectations, and economic considerations into the diagnostic or treatment plan	<ol style="list-style-type: none"> 1. Considers disease in context of the whole animal and client 2. Presents a range of options to the client 3. Considers euthanasia as a management option when appropriate
1.5	Prioritizes situational urgency and allocates resources	<ol style="list-style-type: none"> 1. Triage cases to address most urgent and important problems first 2. Recognizes emergent situation and directs action
1.6	Adapts knowledge to varied scenarios and contexts	<ol style="list-style-type: none"> 1. Extrapolates knowledge to novel species or situations 2. Adjusts existing protocol or procedure when standard measures are unavailable
1.7	Recognizes limitations of knowledge, skills and resources and consults as needed	<ol style="list-style-type: none"> 1. Identifies situations in which referral is warranted 2. Consults experts both within and outside the veterinary profession



DOMAIN 2

Individual Animal Care and Management

The graduate performs preventive, diagnostic, medical and surgical procedures for the health, wellness and treatment of animals, appropriate to the context and life stage.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
2.1	Performs veterinary procedures and post-procedural care	<ol style="list-style-type: none">1. Performs diagnostic procedures2. Performs routine therapeutic procedures (e.g., administer fluids)3. Performs elective procedures (e.g., castration)4. Performs emergency procedures (e.g., establish an airway; perform cardiopulmonary cerebral resuscitation [CPCR])5. Provides analgesia and postoperative care6. Anesthetizes and recovers patients7. Manages patient comfort
2.2	Promotes comprehensive wellness and preventive care	<ol style="list-style-type: none">1. Recommends disease prevention measures2. Provides nutritional counseling appropriate to life stage and health status3. Advises clients regarding routine dental care4. Educates clients on prevention of common behavioral problems5. Counsels clients about husbandry and welfare needs



DOMAIN 3

Animal Population Care and Management

The graduate designs and implements programs in herd/flock health, disease prevention and control to improve the health, welfare and productivity of animal populations.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
3.1	Applies population management principles in compliance with legal regulations and economic realities	<ol style="list-style-type: none">1. Recommends disease prevention measures2. Advises on nutritional management3. Recommends housing and husbandry protocols4. Designs therapeutic plans for disease management
3.2	Recommends and evaluates protocols for biosecurity	<ol style="list-style-type: none">1. Develops isolation protocols2. Selects disinfection protocols3. Recommends protocols for animal movement
3.3	Advises stakeholders on practices that promote animal welfare	<ol style="list-style-type: none">1. Advocates for animal welfare through communication of the physical, affective, and natural needs of the animal2. Explains ethical and welfare-related aspects of production processes and slaughter3. Recognizes proper handling and/or adequate facilities by interpretation of animal behaviors4. Advises on animal husbandry and transport



DOMAIN 4

Public Health

The graduate responds to issues at the interface of animals, humans, and the environment, utilizing a global perspective and sensitivity to local cultures.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
4.1	Recognizes zoonotic, transboundary, and emerging diseases and responds accordingly	<ol style="list-style-type: none">1. Identifies the clinical signs, clinical course, transmission potential and pathogen(s) associated with zoonotic, transboundary, and emerging diseases2. Responds to disease diagnosis through owner education, reporting, quarantine, and disinfection
4.2	Promotes the health and safety of people and the environment	<ol style="list-style-type: none">1. Makes recommendations for management of animal waste, carcasses, and by-products2. Implements safety and infection control practices3. Advises on disaster/emergency preparedness and response4. Practices responsible use of antimicrobial agents5. Describes the role of the veterinarian in food safety



DOMAIN 5

Communication

The graduate communicates effectively with diverse clients, colleagues, other healthcare professionals and the public to promote animal, human and environmental health and wellbeing.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
5.1	Listens attentively and communicates professionally	<ol style="list-style-type: none">1. Uses appropriate terminology and approach for audience2. Utilizes a variety of communication platforms to ensure effective communication and accessibility (e.g., email, talk to text)
5.2	Adapts communication style to diverse audiences	<ol style="list-style-type: none">1. Demonstrates audience-centered communication2. Elicits goals, expectations, perspectives and constraints, considering the human-animal bond3. Engages in difficult conversations such as financial decisions and end-of-life care (e.g., palliative care and euthanasia)
5.3	Prepares documentation/forms appropriate for the intended audience	<ol style="list-style-type: none">1. Records patient care information and communication using professional terminology2. Ensures documentation fulfills professional and legal requirements



DOMAIN 6

Collaboration

The graduate collaborates with diverse colleagues, clients and other stakeholders and demonstrates skills as a leader and interprofessional team member to improve outcomes and reduce error.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
6.1	Solicits, respects and integrates contributions from others	<ol style="list-style-type: none">1. Invites input from others irrespective of role, hierarchy or background2. Acknowledges input and incorporates into ongoing plan of action3. Leverages own role and roles of others to achieve shared goals4. Engages colleagues to foster a culture of patient safety and error reduction
6.2	Functions as leader or team member based on experience, skills and context	<ol style="list-style-type: none">1. Applies principles of teamwork2. Bases action on collaborative input3. Manages conflict
6.3	Maintains ongoing relationships to provide continuity of collaborative effort	<ol style="list-style-type: none">1. Organizes documentation and communicates with collaborator in preparation for transfer or discharge2. Follows up with collaborator to ensure implementation of care plan3. Provides support through encouragement, education, or redirection to refine the plan of action
6.4	Demonstrates inclusivity and cultural competence	<ol style="list-style-type: none">1. Demonstrates respect for diversity2. Encourages diverse contributions within the workplace



DOMAIN 7

Professionalism and Professional Identity

The graduate demonstrates behaviors expected of the veterinarian, including ethical reasoning, reflective practice, self-regulation, professional development, and personal wellbeing.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
7.1	Adopts an ethical approach to meeting professional obligations	<ol style="list-style-type: none">1. Applies an ethical approach to professional decision-making2. Recognizes and responds to evidence of neglect and abuse
7.2	Practices time management	<ol style="list-style-type: none">1. Recognizes impact of time management on stakeholders2. Prioritizes and completes tasks according to importance and urgency
7.3	Reflects on personal actions and uses feedback to plan improvement	<ol style="list-style-type: none">1. Practices self-reflection2. Invites and responds to constructive feedback on performance3. Critiques decision-making process and its outcomes
7.4	Engages in self-directed learning	<ol style="list-style-type: none">1. Engages in self-directed learning as a foundation for life-long learning2. Identifies and undertakes professional development to meet learning needs3. Uses appropriate resources for learning and decision-making (e.g., information technology, consultation with colleagues)
7.5	Attends to wellbeing of self and others	<ol style="list-style-type: none">1. Recognizes sources of workplace stress and acts to remedy adverse situations2. Recognizes signs of stress in self and colleagues, engages in self-care and recognizes when professional support is appropriate for self or others3. Manages expectations of client and self
7.6	Engages in career planning	<ol style="list-style-type: none">1. Compares career paths and weighs professional and personal rewards (e.g., financial implications)



DOMAIN 8

Financial and Practice Management

The graduate utilizes business acumen to manage professional and personal decisions, complies with legal and regulatory requirements and ensures safety of the workplace.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
8.1	Weighs financial factors in personal and business decision-making	<ol style="list-style-type: none">1. Applies financial principles to personal and professional decisions (e.g., debt repayment plan)2. Explains work-related insurance (e.g., personal, professional, patient)3. Describes relationship between revenue generation, expense categories, and compensation including benefits
8.2	Delivers veterinary services compliant with legal and regulatory requirements	<ol style="list-style-type: none">1. Acts in accordance with codes of professional practice, veterinary practice acts and licensing board regulations (e.g., veterinarian-client-patient relationship)2. Acts in accordance with legal and regulatory requirements (e.g., reportable diseases, animal cruelty, waste disposal)3. Selects drugs in accordance with regulatory and legal requirements (e.g., controlled substances, extra-label drug use)
8.3	Advocates for the health and safety of patients, clients, and members of the team within the workplace	<ol style="list-style-type: none">1. Complies with workplace health and safety regulations (e.g., radiation safety, infection control)2. Applies safe practices for handling hazardous materials (e.g., administration of chemotherapeutic agents)3. Identifies and addresses sources of medical error/adverse events



DOMAIN 9

Scholarship

The graduate demonstrates the systematic identification, evaluation, integration and adaptation of evidence and experience to formulate questions and solutions, and educate others.

COMPETENCIES		ILLUSTRATIVE SUBCOMPETENCIES
9.1	Practices evidence-based veterinary medicine (EBVM)	<ol style="list-style-type: none">1. Formulates questions and customizes solutions, drawing on personal experience and available evidence2. Retrieves, evaluates, and applies information to solve clinical or scientific problems3. Applies creativity to develop innovative solutions
9.2	Disseminates knowledge and practices to stakeholders	<ol style="list-style-type: none">1. Develops and disseminates educational materials2. Explains evidence-based recommendations

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