Technical Report
ICVA Veterinary Educational Assessment
September 2018, January 2019, and May 2019 Test Administrations

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I. Introduction

The International Council for Veterinary Assessment (ICVA) Veterinary Educational Assessment (VEA) has been developed for schools accredited by the Council on Education of the American Veterinary Medical Association for use as an assessment of basic science knowledge. In addressing this objective, the VEA strengthens the veterinary education process by providing a psychometrically-sound method for assessing student performance on both the individual and aggregate level, both on an annual basis and as a longitudinal measure. Schools will use the score information obtained on the examination for curricular review and assessment purposes.

II. Test Development

Veterinary Educational Assessment test development is done by the ICVA in cooperation with the National Board of Medical Examiners (NBME). The forms used for the 2018-2019 VEA administrations each contained 200 items and 600 pretest items that randomly occupied 40 slots on each examination. The blueprint used to construct the 2018-2019 VEA forms is as follows:

Anatomy	22%	Includes gross and microscopic anatomy, developmental anatomy, physical examination, and principles of radiology and diagnostic imaging
Physiology	23%	Includes organ physiology, physiological chemistry, genetics, nutrition, and breeding
Pharmacology	14%	Includes pharmacokinetics, pharmacodynamics, therapeutics, toxicology, and anesthesia/analgesia
Microbiology	20%	Includes bacteriology, mycology, virology, parasitology, immunology, diagnostics, and public health [regulatory, epidemiology, and zoonoses])
Pathology	21%	Includes general pathology, gross pathology, histopathology, pathogenesis, and clinical pathology [cytology and data analysis/diagnostics])

The committee of content experts listed in **Appendix A** reviewed and approved the examination forms before they were finalized. The committee of content experts listed in **Appendix B** participated in the process to create performance guidelines to be used by the schools to assess student performance and see if any individuals need assistance in specific content areas. Following final approval by ICVA, items and images were transmitted to NBME's web-based vendor, for web-based publication. Quality control procedures were implemented at each stage of the test development process to ensure accuracy and quality of the test materials.

III. Test Administration

The VEA was administered to 13 schools during the three testing windows for the 2018-2019 examination cycle. A total of 1541 students completed the examination. Schools that participated in the examination are as follows;

September 2018 window: University of Missouri, St. George's University, St. Matthew's University, Midwestern University, Texas A&M University, University of Sydney, Ross University, and Tuskegee University

January 2019 window: Iowa State University, University of Tennessee, St. Matthew's University, Purdue University, St. George's University, Lincoln Memorial University, Oklahoma State University, and Ross University

May 2018 window: St. Matthew's University, and Ross University.

Post-Test Survey:
Examinees were asked to complete an optional post-test survey after completing the examination. Results of the survey for each administration were provided to the NBME and the ICVA.

IV. Scoring and Analysis

Raw and percent correct scores were computed for each examinee on the total test and each of the five content areas. Percent correct scores for examinees who took the examination from the 2002-2003 testing cycle to the 2013-2014 testing cycle (when the test was known as the "Qualifying Examination" or "QE") are not directly comparable across administrations. Summary statistics for all students who took the VEA during the 2018-2019 testing cycle are provided in Table 1.

Feedback was distributed to schools approximately 28 days after the end of the administration. Annual school reports were created and distributed to all schools that used the VEA during the 2018-2019 testing cycle in early August of 2019.

Table 1
Percent Correct - Means and Standard Deviation for all examinees
2018-2019 Veterinary Educational Assessment testing cycle

Total Test	Anatomy	Physiology	Pharmacology	Microbiology	Pathology
55 (10)	55 (12)	56 (13)	57 (13)	55 (14)	55 (14)

Appendix A
Veterinary Educational Assessment
March 2018 VEA Form Review Meeting Participants

Dr. Daniel Brown
University of Florida College of Veterinary Medicine, Gainesville, FL

Dr. Stephen Cole
University of Pennsylvania College of Veterinary Medicine, Philadelphia, PA

Dr. Benjamin Darien
University of Wisconsin School of Veterinary Medicine, Madison, WI

Dr. Tim Evans
University of Missouri College of Veterinary Medicine, Columbia, MO

Dr. Julie Fixman
South Putnam Animal Hospital, Mahopac, NY

Dr. Hilari French
Ross University School of Veterinary Medicine, St. Kitts

Dr. Sagar Goyal
University of Minnesota College of Veterinary Medicine, St. Paul, MN

Dr. James Herman
Texas A&M University College of Veterinary Medicine, College Station, TX

Dr. Sanjay Kapil
Oklahoma State University College of Veterinary Medicine, Stillwater, OK

Dr. M. Cathleen Kovarik
University of Missouri College of Veterinary Medicine, Columbia, MO

Dr. Martha Littlefield
Louisiana State University School of Veterinary Medicine, Baton Rouge, LA

Dr. Wayne Schwark
Cornell University College of Veterinary Medicine, Ithaca, NY

Dr. Cathryn Sparks
Kansas State University College of Veterinary Medicine, Manhattan, KS

Dr. Michael Stonerook
Lincoln Memorial University College of Veterinary Medicine, Harrogate, TN

Appendix B

July 2018 VEA Performance Guideline Meeting Participants

Dr. Jennifer Buur
Western University of Health Sciences, College of Veterinary Medicine, Pomona, CA

Dr. Christina Clarkson
University of Minnesota College of Veterinary Medicine, St. Paul, MN

Dr. Tim Evans
University of Missouri College of Veterinary Medicine, Columbia, MO

Dr. Hilari French
Ross University School of Veterinary Medicine, St. Kitts

Dr. James Herman
Texas A&M University College of Veterinary Medicine, College Station, TX

Dr. Sanjay Kapil
Oklahoma State University College of Veterinary Medicine, Stillwater, OK

Dr. Brendan Lee
St. Matthew's University, School of Veterinary Medicine, Grand Cayman

Dr. Martha Littlefield
Louisiana State University School of Veterinary Medicine, Baton Rouge, LA

Dr. Carly Patterson
Texas A&M University College of Veterinary Medicine, College Station, TX

Dr. Wayne Schwark
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Dr. Devendra Shah
Washington State University, College of Veterinary Medicine, Pullman, WA

Dr. Cathryn Sparks
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