Veterinary Educational Assessment
August/September 2020, January 2021, and May 2021 Test Administrations
International Council for Veterinary Assessment

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 2020-2021 VEA administrations each contained 200 items and 600 pretest items that randomly occupied 40 slots on each examination. The blueprint used to construct the 2020-2021 VEA forms is as follows:

Area	Percentage	Description
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 oversaw the review process for the examination. The committee of content experts listed in Appendix B reviewed and approved the pool of test items to be used in future test administrations. The committee of content experts listed in Appendix C reviewed and approved the forms of the assessments to be used in future test administrations. 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 2020-2021 examination cycle. A total of 1634 students completed the examination. Schools that participated in the examination are as follows:

August/September 2020 window: University of Missouri, St. George's University, St. Matthew's University, Texas A&M University, Ross University, and North Carolina State University

January 2021 window: Iowa State University, University of Tennessee, St. Matthew's University, St. George's University, Lincoln Memorial University, Midwestern University, Oklahoma State University, University of Missouri, University of Pennsylvania, University of Queensland, and Ross University

University of Tennessee, St. Matthew's University, Ross University, the University of Queensland, the University of Pennsylvania, and Louisiana State University.

During all three testing windows, the test administration used the option of remote proctoring to follow the CDC guidelines of social distancing due to the COVID-19 pandemic.

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 2020-2021 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 2020-2021 testing cycle in early August of 2021.

TABLE 1. PERCENT CORRECT - MEANS AND STANDARD DEVIATION FOR ALL EXAMINEES
2020-2021 VETERINARY EDUCATIONAL ASSESSMENT TESTING CYCLE

Total Test	Anatomy	Physiology	Pharmacology	Microbiology	Pathology
57 (11)	52 (12)	59 (12)	53 (14)	59 (13)	59 (14)

APPENDIX A

Veterinary Educational Assessment Examination Committee Members

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

October 2020 VEA Pool Review Meeting Participants

Dr. Lora Ballweber - Microbiology
Colorado State University College of Veterinary Medicine, Fort Collins, CO

Dr. Linda Berent - Pathology
Formerly - University of Missouri College of Veterinary Medicine, Columbia, MO

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

Dr. Stephen Cole - Microbiology
University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA

Dr. David Cross - Anatomy/Microbiology
University of Missouri College of Veterinary Medicine, Columbia, MO

Dr. Abdalla Eljack - Anatomy
Tuskegee University College of Veterinary Medicine, Tuskegee, AL

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

Dr. Virginia Fajt - Pharmacology
Texas A&M University College of Veterinary Medicine, College Station, TX

Dr. Hilari French - Physiology/Pathology
Ross University School of Veterinary Medicine, St. Kitts

Dr. Hari Goyal - Anatomy/Physiology
Tuskegee University College of Veterinary Medicine, Tuskegee, AL

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

Dr. Megan Jacob - Microbiology
North Carolina State University College of Veterinary Medicine, Raleigh, NC

Dr. Jennifer Ketzis - Microbiology (parasitology)
Ross University School of Veterinary Medicine, St. Kitts

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

Dr. Brendan Lee - Microbiology (epidemiology)
St. Matthew's University School of Veterinary Medicine, Grand Cayman

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

Dr. Sheba MohanKumar - Anatomy/Physiology/Pharmacology
Michigan State University School of Veterinary Medicine, East Lansing, MI

Dr. Puliyur MohanKumar - Anatomy
University of Georgia College of Veterinary Medicine, Athens, GA

Dr. Jeffrey Musser - Microbiology
Texas A&M University College of Veterinary Medicine, College Station, TX

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

Dr. Karen Russell - Pathology
Texas A&M University College of Veterinary Medicine, College Station, TX

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

Dr. Devendra Shah - Microbiology/Pathology
Washington State University College of Veterinary Medicine, Pullman, WA

Dr. Cathryn Sparks - Anatomy/Physiology
Kansas State University College of Veterinary Medicine, Manhattan, KS

Dr. Michael Stonerook - Pharmacology/Toxicology/Physiology
Lincoln Memorial University College of Veterinary Medicine, Harrogate, TN

Dr. T. Thippeswamy - Anatomy
Iowa State University College of Veterinary Medicine, Ames, IA

Dr. Maureen Wichtel - Anatomy/Physiology
University of Prince Edward Island Atlantic Veterinary College, Charlottetown, PEI

March 2021 VEA Form Review Meeting Participants

Dr. Lora Ballweber - Microbiology
Colorado State University College of Veterinary Medicine, Fort Collins, CO

Dr. Linda Berent - Pathology
Formerly - University of Missouri College of Veterinary Medicine, Columbia, MO

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

Dr. David Cross - Anatomy
University of Missouri College of Veterinary Medicine, Columbia, MO

Dr. Abdalla Eljack - Anatomy
Tuskegee University College of Veterinary Medicine, Tuskegee, AL

Dr. Hilari French - Physiology/Pathology
Ross University School of Veterinary Medicine, St. Kitts

Dr. Jennifer Ketzis - Microbiology (pathology)
Ross University School of Veterinary Medicine, St. Kitts

Dr. Martha Littlefield - Physiology/Anatomy
Louisiana State University School of Veterinary Medicine, Baton Rouge, LA

Dr. Sheba MohanKumar - Physiology
Michigan State University School of Veterinary Medicine, East Lansing, MI

Dr. Puliyur MohanKumar - Anatomy
University of Georgia College of Veterinary Medicine, Athens, GA

Dr. Jeffrey Musser - Microbiology
Texas A&M University College of Veterinary Medicine, College Station, TX

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

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

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

Dr. Michael Stonerook - Pharmacology/Physiology
Lincoln Memorial University College of Veterinary Medicine, Harrogate, TN

Dr. Maureen Wichtel - Anatomy/Physiology
University of Prince Edward Island Atlantic Veterinary College, Charlottetown, PEI