American College of Veterinary Preventive Medicine (ACVPM)
Examinations Committee
Standard Operating Procedures (SOP)
Approved March 2020

I. Membership

A. The Examinations Committee will consist of 6 members: 5 Subject Matter Experts (SMEs) and the Committee Chair (Chair). The ACVPM Executive Vice President (EVP) is an ex-officio member. An assessment expert.

B. There will be one SME for each of the following Subject Areas:
   1. Environmental Health
   2. Epidemiology and Biostatistics
   3. Food Protection
   4. Infectious and Parasitic Diseases
   5. Public Health Administration and Education

C. Members will serve a term not to exceed 6 years. According to the ACVPM Bylaws, the most senior committee member serves as committee chairperson. The second-most senior person serves as the vice-chair of the committee. For the 2019 Examination, the order of committee seniority with year appointed is:
   1. Margery Hanfelt (14) - Chair
   2. Greg Habing (15) – Epidemiology and Biostatistics SME, Vice Chair
   3. Aaron Scott (16) - Infectious and Parasitic Diseases SME
   4. Reid Harvey (17) – Environmental Health SME
   5. Joy Bennett (18) - Public Health Administration and Education SME
   6. Sarah Easter Strayer (19) – Food Protection SME
   7. Councilor – Barbara Jones
   8. Assessment Expert – Amanda Berrian (ex officio)
   9. Executive Vice President - Tom Berg (ex officio)

D. The Committee may use additional ACVPM SMEs as needed to help administer and grade exams and write questions.

II. Roles and Responsibilities

A. The Chair:
   1. Assumes the duties of Chair at the conclusion of the annual general membership meeting and relinquishes the duties at the close of the general membership meeting the following year. The past chair may be consulted or utilized as needed and available in an advisory capacity.
   2. Schedules and conducts all meetings and assigns tasks that must be accomplished throughout the year. In-person meetings include a Winter (February) meeting for test writing and planning, Exam taking (June), and a Summer meeting (before the ACVPM Executive Board meets and in accord with the timeline for notification to the candidates; usually in conjunction with the AVMA Annual Meeting) for finalization of test scores.
   3. Establishes and executes appropriate policies and procedures to ensure security of the test database and the actual examination.
   4. Ensures the board certification examination is comprehensive, valid, reliable, legally defensible, and is administered in an appropriate testing environment.
   5. By April 1st, nominates replacement SMEs, via the Councilor to the ACVPM President and EVP after consultation with the committee members (first discussion of replacement at February meeting targeting approval so that the new SME can attend the Summer Executive Board
Drafts appointment letter to be signed and sent by the President. Provides appropriate background and committee information including the SOP to the appointee. After appointment, the replacement SME will be invited to attend all meetings prior to and including the annual ACVPM meeting.

6. Ensures all SME responsibilities for the appropriate subject matter area are accomplished in the absence of a designated SME.

7. Completes and submits a committee report to the ACVPM Executive Board by 1 June and presents test results to the ACVPM Executive Board during the annual meeting.

8. Ensures all open issues are tracked to closure.

9. Works with the EVP in preparing for and administering the examination.

10. Answers post-exam inquiries by drafting the response to the candidate with a copy to the EVP.

11. Recommends to the President, after consultation with the committee members and the EVP, the removal of committee members who are unable to fulfill the duties of SME in a satisfactory manner or who are unresponsive to repeated requests to complete committee assignments.

12. Supports safeguards of all databases and sensitive examination materials.

13. Reviews and summarizes the evaluations completed by examinees.

14. Annually reviews the budget with the Committee during the February meeting.

B. The Vice-Chair:

1. Accomplishes the responsibilities of the Chair in the absence of, or lack of response from the Chair, as well as functions as an SME.

2. Works with the EVP and Chair in preparing for and proctoring the examination.

3. Performs other duties as requested by the Chair.

C. The SMEs:

1. New SMEs attend question writing training in February.

2. Annually review, update, reference and validate all multiple-choice questions in their designated area of expertise and make necessary corrections.

3. Generate at least 5 new multiple-choice questions for the database each year.

4. Assign a category and subcategory designator to each new question added to the database.

5. Annually develop essay questions for the essay section of the exam and present it in draft form at the Exam Committee Winter meeting. Each SME must also finalize their draft after the meeting and place it in the designated electronic repository.

6. Compile and review their portion of the draft multiple choice exam in ExamSoft by 1 March. Approve their portion of the draft multiple-choice exam in ExamSoft by 1 April.. All changes must be submitted to the Chair within the time frame set by the Chair.

7. Attend all Exam Committee meetings and vote on various committee issues.

8. Support safeguarding of all databases and sensitive examination materials.

9. Assist with proctoring and administration of the exam as needed at the discretion of the Chair.

10. Annually review and update the candidate Study References document.

D. The ACVPM Executive Vice President (EVP):

1. Provides administrative support to the activities of the Examinations Committee.

2. Maintains historical files.

3. Arranges for an appropriate examination facility.

4. Manages requests for special accommodations and off-site proctoring of exam.

5. Monitors post-exam inquiries and forwards the information to the Chair.

6. Prepares and sends letters to candidates with results of their exam(s).

7. Serves in an ex-officio capacity.

8. Other duties as requested by the Chair and approved by the ACVPM President.
E. The Assessment Expert(s)
   1. Creates and/or edits multiple-choice questions to improve the validity for assessing candidate knowledge and implements “best-practices” for the creation of multiple-choice questions.
   2. Creates and reviews essay questions and creates questions that validly assess candidate knowledge and communication skills.
   3. Reviews exam questions to ensure up-to-date alignment with the published ACVPM ideal curriculum for each for the five subject matter areas.
   4. Conducts a post-hoc analysis of the assessment and assessment metrics to identify opportunities for further improvement.
   5. Standardizes the format and style of questions across subject matter areas of the exam.
   6. Facilitates the creation of grading rubrics for essay questions and works with SMEs to implement multiple SME grading within the testing software.
   7. Facilitates the uploading and implementation of exams within testing software.
   8. Attends the in-person meeting of the ACVPM Exam Committee.
   9. Provides support during the ACVPM examination.
   10. Participates virtually during the ACVPM Exam Committee final results approval that coincides with the AVMA Conference (as requested by the Committee Chair).

F. The Councilor
   1. Is a voting member of the Executive Board and a non-voting member of the committee.
   2. Acts as liaison between the Executive Board and this committee.
   3. Attends all committee meetings.
   4. Acts as an advisor to the Committee; is responsible for providing historical context and relaying information and requests to and from the Executive Board.
   5. The ACVPM Bylaws Article III sections 1-5 contains additional language regarding the Councilor position.

III. Examination Procedures

A. General:
   1. The ACVPM board examination will be based on the following premises:
      a. Relevance of the content of the exam (i.e. are we asking the right questions?).
      b. Sound processes that ensure confidentiality, legal propriety and defensibility.
   2. Frequency, scheduling, and location of examinations:
      a. There will be only one ACVPM board certification examination each year.
      b. The examination test date will be scheduled to allow adequate time to review, tabulate, and validate examination results prior to reporting results to the Executive Board.
      c. Examination administration:
         1) The Essay examination will be given on the first day.
         2) The Multiple-choice examination will be given on the second day.
      d. The examination will be given at the Ohio State University College of Veterinary Medicine in Columbus, Ohio.
      e. Candidates taking the examination must do so in person at the Ohio State University testing site unless remote proctoring is authorized by the Exam Committee.
      f. An exam evaluation will be emailed to the Candidates shortly after the exam, compiled, reviewed and reported on by the Chair and changes made in order to make continuous improvements to the process.
   3. Remote testing and proctoring:
      a. Candidates taking only the Multiple-choice section or only the Essay Section and living outside the continental US, or for validated medical reasons, may petition the Exam Committee to take the examination remotely using a certified Proctor.
      b. Candidates will be responsible for all expenses incurred as a result of remote proctoring.
c. Candidates will be advised that they will not receive remote assistance or supplemental instructions during the exam.

d. Petition process:
   1) Candidates must submit a written request to the EVP no later than 2 months prior to the exam.
   2) The request must include contact information for the certified proctor (such as at a Sylvan Learning Center or at the education center on a military base) and proposed exam location.
   3) The Chair will review the request. If approved, the EVP will send remote exam-taking instructions to the Candidate and Proctor.
   4) The Candidate will take the exam at the exact same time (regardless of time zone differences) as the Candidates in Ohio.
   5) The exam password will be sent directly to the proctor approximately 24 hours before the start of the exam by the EVP or Chair. This password will allow the candidate to open the exam on his/her computer.
   6) The Proctor will ensure the exam is uploaded into ExamSoft.

4. Exam questions identified as problematic:
   a. Due to a typing error or misspelling that is easily clarified, a Proctor will project the correction in the exam rooms to all Candidates. Note: this information is not available to off-site Candidates.
   b. SMEs in consultation with the Chair and Assessor review problematic questions and determine if the question(s) should be removed from the exam (to the Candidates’ benefit).

B. Facility and equipment requirements:
   1. Minimum facility criteria:
      a. The rooms shall be large enough to comfortably accommodate the total number of Candidates. Access to the test environment must comply with the Americans with Disabilities Act.
      b. Ample bathrooms should be conveniently located, and water will be made available.
      c. The exam rooms shall remain free of distractions and objectionable noise from other activities. Proctors will only answer candidate questions outside the exam rooms so as not to distract others.
      d. Headsets, iPods, cell phones, smart watches, fit bits, and other electronic devices will not be allowed on the premises.
      e. Simple non-programmable calculators will be provided by ACVPM and are also available within the exam software.
   2. Persons with documented pre-existing disabilities needing accommodation must submit an accommodation request to the EVP on or before the application deadline. (See ACVPM Accommodation Request documents and forms on the ACVPM website.)
   3. The ACVPM exam will be administered using ExamSoft.
      a. Candidates must download the exam in advance of the test date and will take the exam on their own laptop computers.
      b. A Mock Exam is provided to help identify any hardware/software issues as well as provide the Candidate useful information and an opportunity to become familiar with the software.
      c. At the exam, Candidates receive a password for each exam Section to start the exam and lock them out of Internet and access to other files and applications on their devices.
      d. Proctors confirm that completed exams are uploaded into Examsoft.
   4. Determine if calculators should be purchased for Candidates and, if so, work with EVP to purchase.

IV. The ACVPM Certifying Examination:

A. General:
1. The exam is divided into two Sections:
   a. Essay
   b. Multiple-choice
2. During any one annual examination cycle, the Candidate must pass the entire Section (Essay or Multiple-choice) in that examination cycle to be considered as having passed the Section.
3. A Candidate must achieve at least a 50% score (≥0.4950) in each of the five Subject Areas AND at least a 70% score (≥0.6950) in three of the five Subject Areas to pass each Section.
4. To be eligible for Certification, a Candidate must successfully pass both the Essay and Multiple-choice Sections of the examination within 3 years from the date the credentials committee approved the Candidate to sit for the examination. This 3-year period includes both retakes and deferments. If not passed during this 3-year period, all portions of the credentialing, exam, and full fee payment must be repeated. The Examination Committee can make exceptions in unusual cases if so petitioned by the Candidate.
5. Some Candidates defer taking the examination when first approved. A maximum of two deferments (years) are permitted with the original application. If more than 3 years have elapsed between the original application approval and sitting the examination, the Candidate must complete a new application and must pay an additional 25% of the application fee in effect when the Candidate reschedules to take the examination. The Examination Committee can make exceptions for the fee in unusual cases.
6. If a Candidate decides not to take the exam on the date scheduled, the Candidate must notify the EVP as early as possible but at least by the date set in the test instructions sent out by the EVP. In extreme cases, a deferral less than 30 days prior to the examination date will be considered by the EVP in consultation with the Chair. If the EVP is not notified or notified after the date set in the test instructions, the Candidate will be considered a “no-show.” In the case of “no-shows,” the College will keep the application fee, and the Candidate must pay an additional 50% of the application fee in effect when the candidate reschedules to take the examination.

B. Creating the Essay exam.
1. The Essay questions for each Subject Area will be worth 20 total points. Topics must:
   a. Be pertinent to veterinary preventive medicine.
   b. Be communicated clearly with correct grammar, spelling and complete sentences.
   c. Have been addressed or indexed in at least one of the Study References (posted on the ACVPM website) during the 36 months prior to May 1st of the examination year.
   d. Evaluate Candidates’ ability to communicate their answers clearly and logically with at least one sub-question in each Subject Area directing the Candidate to communicate an issue to the public, a regulator, elected officials, or the media. Five points of the total 20 points per section should be awarded for effective communication. The five points can be concentrated in one question or spread across several questions.
2. Prior to the Winter Meeting, each SME creates the questions for their Subject Area using the approved format. Criteria:
   a. Prior to the first question in all Subject Areas, instructions to candidates should state the following:
      “Note: Proper spelling, punctuation, and grammar is expected for all answers. Your responses must be clear and accurate using complete sentences. Answer each question as completely but as concisely as possible.”
   b. State the question; include the number of points to be given for each sub-question, if applicable.
   c. Provide an Answer Key with correct answers for all sub-questions.
   d. Provide references.
3. Draft questions will be entered into ExamSoft at a time designated by the Chair.

C. Administering and grading the Essay exam.
1. The Essay Section of the test is given on the first day. All times are in Eastern time zone.
2. Candidate registration will begin at 8:15 am. Candidates will present a government-issued picture ID card at the time they place their signature on the sign-in roster.

3. The Chair will provide verbal instructions to the Candidates at approximately 8:40 am.

4. The examination will begin immediately after the instructions by providing the Exam Code established when the Essay exam was posted in ExamSoft.

5. The examination ends 6 hours after the Candidate initiates the exam in ExamSoft.

6. All Candidates will sign-out after they verify that their exam has been uploaded.

7. Essay grading:
   a. Each SME will grade his/her assigned questions in ExamSoft within the timeframe established by the Chair.
   b. Each SME will grade the Candidates’ responses to their own question.
   c. Each SME also will be the secondary grader as follows:
   d. Epidemiology and Biostatistics SME is secondary for Environmental Health
   e. Infectious and Parasitic Disease SME is secondary for Food Protection
   f. Food Protection SME is secondary for Public Health Administration and Education
   g. Environmental Health SME is secondary for Epidemiology and Biostatistics
   h. Public Health Administration and Education SME is secondary for Infectious and Parasitic Disease
   i. If the scores of the two graders vary by more than 3 points, and one is passing, and one is failing, the question will be scored by a tertiary grader assigned by the Chair.
   j. The score the candidate receives on a question is the average of the two highest scores.
   k. The number of points deducted and the reason for the point deduction (the deficiency) must be recorded and maintained by each grader.

D. Review and validation of Multiple-choice questions

1. Each SME has password-protected access to ExamSoft to maintain their question database.

2. SMEs assign each question to one of 10 (or fewer) subcategories. This information will be used to determine which subcategories need more database questions and to ensure each subcategory is appropriately represented on the examination. Current subcategories for each of five Subject Areas include:
   a. Environmental Health:
      1) Air
      2) Emergency preparedness and response
      3) Land/soil
      4) Occupational health
      5) Radiation
      6) Toxicology
      7) Vectors
      8) Waste
      9) Water
   b. Epidemiology and Biostatistics:
      1) Analytical study designs and measures of association
      2) Basic epi concepts
      3) Biostatistics
      4) Causality
      5) Data distributions
      6) Diagnostic tests
      7) Economics
      8) Measures of disease occurrence and measures of effect
      9) Outbreak investigation
      10) Surveillance and sampling designs
   c. Food Protection:
1) Agents and sources of foodborne illness (including microbiological, virological, chemical, toxicological, and radiological)
2) Preharvest
3) Postharvest and processing
4) Detection methods and analytics
5) Food Defense
6) Product safety and consumer exposures
7) Outbreaks, epidemiology, and surveillance
8) Policy and regulation guidance, controls, and compliance
9) Topical food science (e.g. Biotechnology, nanotechnology, antimicrobial resistance, global health)

d. Infectious and Parasitic Diseases:
1) Bacterial agents
2) Foreign animal diseases
3) General
4) Immunology and pathogenesis
5) Pharmaceuticals, biologics, diagnostics and chemicals
6) Rickettsial, parasitic, TSE, and mycotic agents
7) Transmission
8) Viral agents

e. Public Health Administration and Education:
1) Communications (including Risk Communication)
2) Evaluation
3) Governmental function
4) Governmental organization
5) Laws, policies and plans
6) Leadership
7) Prevention
8) Risk assessment
9) Surveillance/monitoring

3. Subcategories, once established, should remain the same from year-to-year, if possible. They can be changed only with the approval of the majority of the committee.
4. The SME will submit their Multiple-choice question recommendations and revisions by the deadline established by the Chair.
5. The SME will conduct final review and validation of the database during the time period as per II.C.6.

E. Creating the Multiple-choice examination.
1. SMEs will select 60 questions for the Multiple-choice examination from each Subject Area in the database. To the extent possible, questions will be selected from all the subcategories within each area of subject matter expertise
2. The Chair will use the following criteria to create the Multiple-choice Section of the examination each year from the validated database:
   a. The test will consist of 300 Multiple-choice questions.
   b. Each Subject Area shall provide 60 questions.
   c. Environmental Health: Questions 1-60
   d. Epidemiology and Biostatistics: Questions 61-120
   e. Food Protection: Questions 121-180
   f. Infectious and Parasitic Diseases: Questions 181-240
   g. Public Health Administration and Education: Questions 241-300
3. The Chair will send the compiled 300 questions to the committee for final review for redundancy and clarity.
F. Administering and grading the Multiple-choice exam.
   1. The Multiple-choice test will be given on the second day of the examination period. All times are Eastern time zone.
   2. Candidate registration will begin at 7:15 am. Candidates will present a government-issued picture ID card at the time they place their signature on the sign-in roster.
   3. The Chair provides verbal instructions at approximately 7:40 am.
   4. The examination will begin immediately after the instructions by providing the Exam Code established when the Multiple-choice exam was posted in ExamSoft.
   5. The examination ends 6 hours after the Candidate initiates the exam in ExamSoft.
   6. Candidates will sign-out after they verify that their exam has been uploaded.
   7. The following procedures will be used for grading of the Multiple-choice exam using ExamSoft.
      a. The Chair, Vice Chair, and EVP review the results, make adjustments as needed to remove any inappropriate questions and give instructions for changes to ExamSoft immediately upon completion of their review.
      b. Any questions that are excluded will be shared with the SME’s so that they can adjust the database for subsequent years. The Chair will recalculate the scores based on the changes. The adjusted scores will be used to determine the final pass/fail result.
      c. The numerical scores awarded to each candidate in each part of the examination will be entered into an Excel spreadsheet for the purpose of calculating overall scores and pass/fail status. The spreadsheet is maintained by the Chair, Vice Chair, and EVP.
   8. Only the EVP, through the official letters of notification to each of the candidates, is to divulge the results of an individual’s performance on the examination. The identities of the Candidates are never revealed to the Examination Committee during the process of grading. Once the letters have been distributed, the Chair and the EVP may respond to inquiries from Candidates.
   9. The Chair will report the group statistics to the Executive Board as soon as the results are available.

V. Document review:

The committee will review/approve the following ACVPM documents each year:
   1. “ACVPM Study References”
   2. Instructions for the ACVPM Board Certifying Exam
   3. Notification letter of pass/fail (reviewed at Results Exam Committee meeting)
   4. OPEN items from previous meetings
   5. ACVPM Examination Committee SOP – due to the Executive Board by March 1 annually

VI. Timeline of Required Committee Actions:

The Chair and EVP will prepare an itemized schedule of required actions, including deadlines, to enhance Committee member preparedness for the Pre-Examination and Examination meetings.

For 2021:

February 1: Each SME will submit their draft essay questions to the Chair and Exam Committee members so that they can be reviewed before the February meeting, discussed at the meeting and entered into ExamSoft.

February XX: Exam Committee meeting to review and revise the Bylaws, SOP and budget, review SME-drafted Essay questions and conduct other Committee business. Replacement SME for Vice-chair is first discussed.

February XX: Writing workshop for new SME(s) - International Council for Veterinary Assessment, Philadelphia.
March 1: SOP Due to EB

April 1: SMEs complete selection of 60 Multiple-choice questions and populate them in the appropriate ExamSoft folders.

April 1: SMEs update final Essay questions in ExamSoft and post two MSWord files of the questions and questions with answer key on the Committee Group section of the ACVPM Website.

May 1: Chair completes review and compilation of 60 questions from each SME and sends the edited 300 question list to each SME along with the final Essay questions for review for redundancy and clarity.

May 1: Budget due to the Finance Committee

May 5: SMEs complete review of all questions and notify the Chair.

May 15: Chair ensures completion of the final 300 question exam with the proper final formatting and works with OSU staff to post the exam in ExamSoft.

June 1: Chair submits nominating information (Brief CV and Exam Committee Recommendation) via Councillor to the ACVPM President and EVP. Also, Annual Report due to Executive Board.

June 17-18: Exam is administered in Columbus, Ohio.

June 27: SMEs complete item analysis on Multiple-choice results and notify the Chair.

July 15: SMEs finalize Essay grades and notify the Chair.

July 31: Exam Committee Results meeting at the AVMA Select a tentative date/location for the Winter 2021 meeting.

August 1: Committee Chair presents committee report to the Executive Board. Executive Board approves final exam results. **Within 45 days of exam completion candidates are notified of results.**

August 4: General Membership Meeting at the annual AVMA meeting: Committee Chair gives an oral report and update of activities at the General Membership meeting.

September 1: Committee Chair sends reminder to SMEs to review their multiple-choice question database. Updated ACVPM Study References is posted to the website. (During the summer meeting, the Committee Chair or designee distributes the existing ACVPM Study References list to each SME for review and updating (Are the references available and the most current? Is there duplication and can the list be shortened?).

November 1: SMEs complete their review of the existing Multiple-choice question pool. SMEs identify questions for permanent removal from the question pool. Each SME enters 5 new questions in the database. If not previously determined, the Chair sets date and place for the Winter Meeting. Chair also reminds committee members to start drafting essay questions.

**VII. Effective Date of Standard Operating Procedure:**

1. This Standard Operating Procedure is effective on approval by the Executive Board and remains in effect until modified or rescinded.

2. It is reviewed annually by the Committee and an updated/reviewed version submitted to the Executive Board by March 1.