



American College of Poultry Veterinarians Certifying Exam Handbook

The mission of the American College of Poultry Veterinarians is to establish standards and implement the specialty certification of veterinarians who attend to poultry health and well-being by oversight of training programs and credentials, preparation and administration of the certification exam, and support of continuing education for recertification, with accountability to the American Board of Veterinary Specialties.

The vision of the American College of Poultry Veterinarians is to define and set the gold standard in the veterinary specialty of poultry health and well-being.

Questions regarding the information in this handbook should be addressed to:

ACPV Office
12627 San Jose Blvd., Suite 202
Jacksonville, FL 32223-8638
support@acpv.info

Last updated September 10, 2020

Table of Contents

Definition of Terms	3
Policies Procedures, and Requirements	3
Introduction	3
Contact Information	4
Certifying Exam	4
Preparation for the Exam.....	5
Responsibilities of the Applicants, Sponsors and Training Programs or Advanced Degree Institutions	6
Responsibilities of the Applicants:.....	6
Responsibilities of the Sponsors:.....	6
Three Training Route Options	7
Responsibilities of the Training Program.....	7
Responsibilities of Advanced Degree Route Applicants	7
Responsibilities of Experience Route Applicants.....	7
Eligibility.....	8
Application Deadlines	9
Application Fees.....	9
Credentialing Requirements for Exam.....	10
Certification and Criteria to Repeat Failed Exams	10
Americans with Disabilities Act (ADA) Requests.....	10
Application Process and Exam Policies	11
Application Process.....	11
Denial of Credentialing	11
Grounds for reconsideration or review:	11
Appeals Process	12
Exam Completion Requirement.....	12
Policy for Deferring of Certification Exam	12
Reporting of Results	12
Appendix A: Checklist for Exam Application:.....	13
Appendix B: Documenting Experience.....	14
Appendix C: Exam Readiness	15
APPENDIX D: Request for Special Accommodations	16
APPENDIX E: ACPV Exam Blueprint.....	17

Definition of Terms

Applicant: A person who has applied to take the exam and has not gone through credentialing review.

Candidate: A person who has applied AND has been approved by the Credentials Review Committee as eligible to take the exam AND approved by the Board of Governors.

Sponsor: A sponsor must be an ACPV diplomate in good standing and have knowledge about the applicant's experience in poultry veterinary medicine. A sponsor's endorsement of an applicant indicates that the sponsor believes that the applicant has adequate training, experience, and knowledge to sit and pass the exam.

Primary sponsor: An ACPV diplomate who has supervised or has direct knowledge of the applicant's experiences, competence, and skills in most, if not all, areas of the exam. See Appendix E.

Secondary sponsors: ACPV diplomates that have partial knowledge of the applicant's experience, competence, and skills.

Application Part 1: Consists of providing the names and contact information of three sponsors.

Application Part 2: Consists of remaining information needed to determine eligibility.

Policies Procedures, and Requirements

Introduction

This handbook was created to assist applicants in applying and preparing for the ACPV certifying exam. There are three routes to be eligible to take the specialty exam. There may be parts of this handbook that may or may not be applicable to all applicants.

Sponsors should review this handbook with potential candidates as soon as possible to make sure they have adequate experience in enough areas to likely pass the exam. This is especially important for potential candidates in postgraduate degree programs and experiential routes.

The ACPV Certifying Exam is governed by the policies, procedures, and requirements in effect during the current application period. The ACPV reserves the right to make changes in its fees, policies, procedures, and requirements at any time, with or without prior notice. The *Candidate Handbook* is updated as requirements or exam details change, and the "Exam Application/Policy" section of the ACPV website should always be referenced for the most current version of this document. Hyperlinks are provided in the *Certifying Exam Handbook* to relevant documents on the ACPV website, especially to documents or information that is most likely to be revised from year to year.

Contact Information

Questions regarding the ACPV Certifying Exam or eligibility criteria should be sent to the Executive Vice President at support@acpv.info.

Certifying Exam

The exam is administered via computer. The candidate will need to download the exam software to their own computer. It is strongly recommended that each candidate practice typing and spelling skills to complete the exam in a specific time period.

The Certifying Exam will be given in English only and in (3) sections consisting of projected images, multiple-choice questions, and a written practical exam. The Certifying Exam content is based on a blueprint of key tasks, poultry species, organ systems, laboratory diagnostics, and distribution of topics. Applicants are strongly recommended to review the blueprint in the handbook to determine if they have covered all the necessary items to be a successful candidate before applying. See appendix E.

The Basic Exam, consisting of multiple-choice questions, will test the candidate's knowledge of a broad range of topics involved in clinical poultry medicine.

The Applied Exam in 2 parts (projected images and written questions) will be a practical exam dealing with diagnostic recognition and problem solving. Questions may require written response to exhibits, such as photographs showing gross or microscopic lesions, figures, laboratory findings, production history and data, descriptions of clinical signs and lesions. Questions requiring short answers will involve diagnoses, recommending therapeutics, and preventive or management action. Interpersonal communication skills are also evaluated by the ability of the candidate to convey information in a thoughtful, concise manner that a variety of people can understand regardless of their education level.

Content of the exam includes the following subject areas with a major emphasis on diagnostic investigation and production:

- Diagnostic Investigation and Epidemiology 34%
- Production 20%
- Biosecurity 12%
- Professional Skills including oral, written, and interpersonal communications 11%
- U.S. Regulations regarding poultry 9%
- Food Safety 5%
- Research Skills 5%
- Anatomy and Physiology 4%

Preparation for the Exam

The exam will allow veterinarians who have successfully completed training programs in poultry medicine or other graduate programs, or who have extensive practical experience, to successfully pass the exam. Suggested Study Materials include but are not limited to:

1. Pertinent scientific journals:
Avian Diseases, Avian Pathology, and Poultry Science.
2. Books
 - Swayne, D. (2020). Diseases of Poultry 14th Edition. Ames, Iowa: Wiley-Blackwell
 - Williams, Susan M. (2016). A Laboratory Manual for the Isolation, Identification, and Characterization of Avian Pathogens 6th Edition. Jacksonville, FL: American Association of Avian Pathologists
 - Abdul-Aziz, T. (2016). Avian Histopathology, 4th Edition. Jacksonville, FL: American Association of Avian Pathologists
 - Owen, R. (2017). A Practical Guide for Managing Risk in Poultry Production 2nd Edition. Jacksonville, FL: American Association of Avian Pathologists
3. Slides and CDs
 - <http://www.cvm.ncsu.edu/conted/avian.html> Virtual slides and gross pathology plus other avian pathology online course material.
 - <http://www.aaap.info/slidesSlide/CD> study sets published by the AAAP.
4. Miscellaneous materials and links for information on regulations, best management practices, and welfare guidelines. For example:
 - AAAP Animal Welfare Committee guidelines--Content for AAAP members only (must be logged in):
 - Approved Poultry Welfare Terms from July 2008 Welfare Committee meeting
 - Broiler Foot paw Scoring Guide
 - Gait Scoring Video
 - Auditing for Wing Trauma
 - Cervical Dislocation Guide
 - Emergency Mass Depopulation Guide
 - Avian Influenza Resources
 - Suggested Websites: National Poultry Improvement Plan, National Chicken Council, National Turkey Federation, American Egg Board, and US Food and Drug Administration, etc.

Responsibilities of the Applicants, Sponsors and Training Programs or Advanced Degree Institutions

Responsibilities of the Applicants:

The level of responsibility expected of trainees for their own education is high and demands extensive independent study of specimens for diagnosis and interpretation, textbooks, journals, and consultation with pathologists, clinicians, and other specialists. Field experience in North American poultry production is essential. Supplementary participation as a student in lectures or participation in seminars may be useful; however, this should not be the major emphasis of the training. The Certifying Exam is the culmination of intensive preparation involving a wide range of poultry health topics. A final phase of concentrated study can generally be successful only if the preceding training has been suitable in breadth and depth.

Applicants are responsible for submitting Part 1 and Part 2 of the application.

Applicants will submit the Application Part 1 with the primary and secondary sponsors names and contacts. One sponsor is the primary sponsor and two are secondary sponsors. A sponsor must be an ACPV diplomate in good standing and have knowledge about the applicant's experience in poultry veterinary medicine. A **primary** sponsor is an ACPV diplomate who has supervised or has direct knowledge of the applicant's experiences, competence, and skills in most, if not all, areas of the exam. See Appendix E. **Secondary** sponsors are ACPV diplomates who have partial knowledge of the applicant's experience, competence, and skills. Applicants should fill out Appendix B and share with the sponsors.

Responsibilities of the Sponsors:

A sponsor's endorsement of an applicant indicates that the sponsor believes that the applicant has adequate training, experience, and knowledge to sit and pass the exam. Sponsorship of an applicant is not to be taken lightly because the ACPV Credentials Review Committee puts considerable trust in sponsors in determining the acceptability of an applicant. A sponsor's endorsement clearly does not guarantee success for the applicant, but it should guarantee that the applicant fulfills the minimum requirements and has been thoroughly prepared.

The primary sponsor must be intimately involved with the training of the applicant. Secondary sponsors must know in some detail what is being done for and by the applicant. All sponsors should serve as counselors who review all aspects of the applicant's training and progress on a regular basis. A primary or secondary sponsor must not have a conflict of interest with the applicant as viewed by an objective outside observer. Sponsors can review candidate's experiences and determine if any areas are lacking or need strengthening. In April prior to the year of the exam, sponsors will receive a sponsorship form which details the knowledge and experience required of applicants, so they can determine if any areas are lacking or need strengthening and discuss remediation with the applicant. It is recommended that the sponsors

review the completed Appendix B provided by the applicant. Completed Sponsorship forms are due to the ACPV business office by the Oct 1 deadline the year prior to the exam.

Three Training Route Options

In addition to having earned a DVM degree or equivalent, the applicant must fulfill one of the following options:

Training Program Route: The applicant has participated and completed an ACPV approved training program. See ACPV website for a list of approved ACPV Training Programs.

Advanced Degree Route: The applicant has earned an M.S. degree or an equivalent or higher postgraduate degree with major emphasis in Poultry Veterinary Medicine before or after obtaining the DVM or equivalent degree. Transcripts from such a program must be included in the application to allow determination of a sufficient degree of poultry medicine emphasis.

Experience Route: The applicant has completed 5 years of professional experiences after obtaining the DVM degree, relevant to Poultry Veterinary Medicine.

Responsibilities of the Training Program

The training program must keep its good standing as evaluated by the ACPV Training Program Review Committee to be an approved training program. See the ACPV website for a list of approved training programs.

Responsibilities of Advanced Degree Route Applicants

If an advanced degree program is unable to provide experiential learning and field exposure, it is up to the applicant to gain such experiences outside of the advanced degree program. This may delay when the applicant is ready to take the exam after getting the advanced degree. The applicant should have knowledge and experience in all the disciplines associated with poultry health, diagnostics, and disease control. This includes diagnostic investigation and epidemiology, production, biosecurity, professional skills including oral, written, and interpersonal communications, U.S. regulations regarding poultry, food safety, research skills, anatomy and physiology. This should be confirmed by selected sponsors.

Responsibilities of Experience Route Applicants

Experiential applicants need to be able to document five (5) years of experience working in the poultry industry as a veterinarian before they are eligible to apply for the exam. Applicants must document one or more activities including, but not limited to, teaching, research, service, or diagnostics with increasing responsibilities over this period of time. This should be confirmed by the selected sponsors. The applicant should have knowledge and experience in all the disciplines associated with poultry health, diagnostics, and disease control. This includes diagnostic investigation and epidemiology, production, biosecurity, professional skills including

oral, written, and interpersonal communications, U.S. regulations regarding poultry, food safety, research skills, anatomy, and physiology.

Eligibility

The following prerequisites must be met to the satisfaction of the Credentials Review Committee before the applicant will be determined eligible to take the Certifying Exam:

1. Applicants must have earned a DVM or an equivalent veterinary qualification which would enable the applicant to practice veterinary medicine in the US or another country.
 - A. All applicants must submit a diploma.
 - B. The applicant who holds a veterinary degree from an AVMA accredited College or School of Veterinary Medicine must request an official veterinary diploma be sent directly to the ACPV office by their granting institution.
 - C. The applicant who has graduated from a non-AVMA accredited College or School must have their diploma verified through a credential certification company with the verification sent directly from the company to the ACPV office.

See the ACPV website for a list of companies that will translate and certify diplomas and transcripts.

2. All applicants must supply a copy of their veterinary license. Applicants who graduate from a veterinary college in a country where a diploma, rather than a formal license, qualifies one to practice veterinary medicine must submit a verification of this practice through a document certification company. See the ACPV website for a list of companies.
3. The applicant must be sponsored by three (3) Diplomates of the College. Only ACPV members in good standing will be allowed to sponsor exam applicants. [ACPV Members in Good Standing](#)
4. Applicants applying for credentialing under the provisions of the ACPV approved training program route must provide one (1) of the following documents at the time exam fees are due. (April 1st):
 - a) An official copy of a certificate of completion, or
 - b) Final transcripts of an ACPV approved training program or
 - c) A letter of anticipated completion from the program coordinator.

If a training route applicant finds that his or her program will not be completed by the time the exam fee is due, he or she must notify the ACPV Executive Vice President and the application will be withdrawn.

5. Applicants applying for credentialing under the provisions of the advanced degree program route must have earned the M.S. degree or an equivalent or higher

postgraduate degree with major emphasis in poultry veterinary medicine before or after obtaining the DVM or equivalent degree. Applicants must submit a diploma and transcripts from such a program to allow determination of a sufficient degree of poultry emphasis. Additional documentation must be submitted to ensure adequate field experiences.

6. Applicants applying for credentialing under the provisions of the professional experience route must have at least five (5) years professional experience after receiving the veterinary degree relevant to poultry veterinary medicine in one or more activities including, but not limited to, teaching, research, service or diagnostics with increasing responsibilities over this period of time.
7. Publications. The candidate shall have authored as first author three case, research, or technical reports of a standard suitable for publication or that make a potential contribution to the field of poultry veterinary medicine. More than 1 nutrition-based manuscript will not be allowed unless it is documenting a formulation mistake resulting in a deficiency/toxicity. Manuscripts dealing with feed additives should demonstrate benefits to poultry health versus strictly feed conversion improvements. Chapters from a dissertation or thesis will not be accepted unless already published.
 - a. In all cases, the applicant shall submit a copy of the relevant article and/or reports described above. These articles must be translated into English. Abstracts or outlines of presentation will not be accepted.
8. Application Part 1: The applicant will fill out an online form with the name and contact information for three sponsors. This is due April 1 (6 months prior to application part 2 deadline). This will give sponsors enough time to review the applicant's experience and address deficiencies.
9. Application Part 2: The applicant will submit Part 2 of the application by the deadline of Oct 1st with the appropriate application fees. An incomplete or late application will not be reviewed by the Credentials Review Committee. See appendix A for Application checklist.

Application Deadlines

- Part 1 is due **Apr 1** by midnight in the ACPV business office.
- Part 2 is due **Oct 1** by midnight in the ACPV business office.

Incomplete or late applications or those lacking payment will not be accepted.

Application Fees

An application fee must accompany the application. Additionally, there is an exam fee should the applicant be accepted as a candidate. See the "Exam Completion Requirement" in this document for further information on exam fees. Current application and exam fees are listed on the ACPV website.

Credentialing Requirements for Exam

The Executive Vice President will perform the initial review of the applications to determine that all documents are submitted, are the proper documents, and that documents are properly certified. If the documents are not in English, the Executive Vice President will see if a translation and certification has been performed. If the application contains improper documents, the Executive Vice President can contact the applicant. The Executive Vice President can reject any application that does not meet the requirements.

The Credentials Review Committee will review all completed applications, documents, and publications to determine if all criteria for taking the exam are met. Applicants may be contacted for additional information. Sponsors may be contacted to determine whether experiences documented correspond to the committee's assessment of the applicant or if there is conflicting documentation.

The Executive Vice President will contact applicants after the review and Board of Governors' decision to inform them of their status to take the exam.

Certification and Criteria to Repeat Failed Exams

Candidates will be required to satisfactorily complete all 3 parts of the certifying exam within a three-year period. Passing one part of the exam is not necessary to complete any other part of the exam. Candidates who fail any part will be eligible to repeat those parts within the three-year period and pay the appropriate fee to retake that part of the exam.

Candidates should prepare a study plan that has been reviewed and approved by their primary sponsor to help prepare in retaking the exam. Reviewing the exam results with the primary sponsor is strongly encouraged so that deficiencies can be addressed before the next exam period.

If the candidate has passed a part, it will not be necessary to re-sit for that part during the three-year period. Candidates who do not pass all parts within the three consecutive exam periods must reapply as new applicants and retake all parts.

Americans with Disabilities Act (ADA) Requests

Candidates who wish to take the certifying exam and require ADA accommodations should contact the ACPV Business office as soon as they apply for the exam. If a candidate has a disability or impairment which may require special accommodation(s) to take the exam, additional documentation may be necessary. See Appendix D.

Accommodation cannot be granted retroactively, so that if a candidate informs ACPV of an impairment or disability after the exam has been completed, there can be no changes made in that candidate's exam results or changes in how that candidate's exam is graded in comparison

to other candidates.

Application Process and Exam Policies

Application Process

1. The **Executive Vice President** reviews application for completeness.
2. The **Credentials Review Committee**:
 - a. Reviews publications and evaluates the applicant in relation to experience, appraisal by sponsors, veterinary degree, formal training, and current valid licensing or equivalent.
 - b. Makes the decision regarding acceptability of an applicant to sit for the exam based on the value judgment of all the members of the Credentials Review Committee.
 - c. Generates a listing of approved and unapproved applicants and sends the list to the Executive Vice President.
3. **The Board of Governors of the American College of Poultry Veterinarians** ratifies the list of approved and unapproved candidates. Applicants are notified within 60 days of the application due date.
4. **Executive Vice President**
The Executive Vice President sends letters to all applicants, approved or unapproved. Unsuccessful applicants have the right to appeal the adverse decision as outlined in the by-laws and ACPV Procedural Manual which conform to the requirements of the American Board of Veterinary Specialties.

The various stages in review and approval ensure that all candidates are considered on an equitable basis and that the best interests of the College, the profession and its constituencies are served. The need to respond to all sections of the application in detail and to provide supporting documentation including certificates, translations as required, and publications is essential to a fair evaluation.

Applicants are encouraged to contact the Executive Vice President in advance of the application deadline regarding any aspect of the completion of the application or the review process. Routine matters can be dealt with by exchange of e-mail, fax or telephone. More complicated issues will be referred to the Chairperson or a member of the Credentials Review Committee.

Denial of Credentialing

An applicant denied credentialing may appeal the decision using the ACPV Appeals procedure.

Grounds for reconsideration or review:

The affected person may petition for reconsideration or review of the decision of the College on the grounds that the College ruled erroneously by, among other things: 1) Disregarding the established criteria of the College for certification; 2) Failing to follow stated procedures; or 3) Failing to consider relevant evidence and documentation presented.

Appeals Process

1. An affected party may petition ACPV to reconsider its decision by filing with ACPV a written petition for reconsideration that shall include a statement of the grounds for reconsideration and documentation, if any, in support of the petition.
2. Such petition must be received in the ACPV office within 90 days of the date ACPV announces its adverse decision.
3. The appeals committee will meet in executive session to reach its final decision, which may then be forwarded to the governing body of ACPV for final action in accordance with the constitution/bylaws and articles of incorporation of ACPV.
4. The ACPV's final action pertaining to the appeal will be delivered in writing by certified mail to the affected party within 60 days after the appeal was received by the ACPV.
5. Upon completion of steps (a) through (d), if the affected party is not satisfied with the final decision, he/she/may request mediation by the ABVS.

Exam Completion Requirement

A candidate will have three years, representing three consecutive exam periods, to successfully complete all phases of the exam. A fee as determined by the Board shall be charged for each and every exam. Any candidate who has not successfully completed three phases of the exam within three years after the application will be permitted to reapply after the third year. Such candidates will be required to submit a new application and exam fee. The candidate will be required to complete the entire sequence, comprising all three parts (phases) of the exam.

Policy for Deferring of Certification Exam

This policy outlines the procedures for candidates who elect not to take the exam even though credentialed with all fees paid. All candidates have a three-year window, beginning with the first year they are accepted, to complete the exam. If the candidate has not passed all sections of the exam within the three-year window, they must follow the above procedure for eligibility timeline (above paragraph). An exam fee is required each year a candidate sits for the exam. If the candidate has paid an exam fee and then elects not to write the exam, they must notify the Executive Vice President by June 1st of the exam year or the exam fee will be forfeited to the ACPV.

Reporting of Results

The candidate will be notified by the Exam Committee Chair regarding their results via email, followed by a letter via post. The Chair has up to 8 weeks after the exam to notify the candidate. Successful candidates will be admitted into the College no later than 10 weeks after they have completed the exam.

Appendix A: Checklist for Exam Application:

- Request official copy of diploma from veterinary school or college granting institution.
- Provide copies of license to practice veterinary medicine or official document that verifies ability to practice veterinary medicine.
- Submit Application Part 1 and 3 sponsor names by April 1.
- Sponsors complete and submit sponsor forms by October 1.
- Submit Application part 2 including 3 first author manuscripts by Oct 1.
- Document completion of ACPV approved training program, OR document postgraduate degree by providing transcripts and diploma, OR document a minimum of 5 years of poultry veterinary experience.
- Pay appropriate fees by due dates.

All documents must be in English. All non-English documents or manuscripts must be submitted to a certified translation and credentialing company and submitted directly to the ACPV office from such company.

Appendix B: Documenting Experience

Please document your experiences in the following areas. Include date(s), hours, name of courses, workshops, training opportunities, etc. This will help your sponsors know if you have enough experience in their opinion to pass the exam. Use more space if needed.

Anatomy and Physiology
Biosecurity
Diagnostic Investigation and Epidemiology
Food safety
Production
Professional skills including oral written and interpersonal communications
US regulations regarding poultry
Research skills
Other experience

Appendix C: Exam Readiness

Study Plan

A candidate who needs to repeat sections will devise a study plan that will prepare him/her for the areas that need strengthening. Review the plan with the primary sponsor.

Areas to include in a study plan should correspond to exam weaknesses. **Reviewing your results with your primary sponsor** is necessary to determine what areas are needed to review and serve as a resource for materials or experiences needed. Examples of questions that may be discussed with the primary sponsor include the following:

1. Do I have sufficient diagnostic experience? Can I perform a necropsy, collect correct samples, interpret results, and devise a treatment protocol or corrective actions based on results? What diseases are reportable?
2. Do I have sufficient North American poultry production experience? Do I know what types of equipment are used in the various housing options for various poultry species? Do I know US regulations regarding medications? Do I know how to perform a welfare audit or understand what an audit reports means? Am I familiar with AgriStats and know what it is used for? Do I know the kind of management needed for different poultry species?
3. Do I have sufficient knowledge of diseases, etiology, control measures, clinical signs, and gross lesions?
4. Do I have sufficient food safety knowledge? What happens in a processing plant? What testing does USDA perform in a plant? What are HACCP control points?

APPENDIX D: Request for Special Accommodations

REQUEST FOR SPECIAL ACCOMMODATIONS FOR THE CERTIFYING EXAM

The American College of Poultry Veterinarians (ACPV) complies with the Americans with Disabilities Act of 1990 (as amended). To ensure equal opportunities for all qualified persons, the ACPV will make reasonable accommodations for candidates when appropriate. If you require special accommodations related to a disability in order to take the exam, you must complete this form and return it with your exam application.

Please provide all information.

Last Name____First Name____Middle Initial _

Telephone number: ()_____Anticipated Exam Date_____

Have you previously taken the ACPV Certifying Exam? Yes No

If yes, on what date?_____

Please identify the disability that substantially limits one or more of your sensory, manual, or speaking skills (e.g. disability that impairs significantly your ability to arrive at, read, or otherwise complete the exam):

Will your disability require a special accommodation in order for you to take the ACPV Certifying Exam? Yes No

If yes, please list the special testing accommodation requested. Use a separate sheet if more space is needed:

Note: You must provide the ACPV with written documentation from an appropriate health care professional supporting the accommodation you are requesting. This documentation must include a diagnosis of your health condition and a specific recommendation and justification for the special testing accommodation that you require. This documentation must be included with the submission of your fees to take the exam. The ACPV will not pay any costs that you may incur in obtaining the required diagnosis and recommendation. However, the ACPV will pay for any reasonable accommodations that are provided for you.

Signature of Candidate

Date

APPENDIX E: ACPV Exam Blueprint

KSA Weights: Alphabetical and by Weight

Weighting Method = Distributed Average

KSAs - in alphabetical order	Weight
Anatomy	2.4%
Animal health regulations	6.9%
Animal use and biosafety regulations (IACUC)	1.7%
Audit training	0.9%
Biosecurity	2.2%
Bird behavior	0.8%
C&D (cleaning and disinfection)	0.5%
Clinical examination	0.4%
Communication and interpersonal skills	5.9%
Contamination and adulteration	1.0%
Cytology and histopathology	0.6%
Data collection	2.3%
Data management	1.2%
Diagnostic tests	5.9%
Disease	17.1%
Disease pathogenesis	1.1%
Economics	1.0%
Embryology	0.7%
Environmental regulations (e.g., EPA)	0.2%
Epidemiology	6.3%
Euthanasia	1.7%
Experimental design	0.4%
Food safety regulations	1.1%
Gross pathology	2.9%
Hatchery management	1.0%
Immunology	0.9%
Isolation and containment	0.4%
Knowledge of biosecurity equipment (e.g., PPE)	0.5%
Laboratory skills	1.4%

KSAs - in alphabetical order, continued	Weight
Media training	0.8%

**Weighting Method =
Distributed Average**

KSAs - in order by weight	Weight
Disease	17.1%
Production management	11.3%
Animal health regulations	6.9%
Epidemiology	6.3%
Communication and interpersonal skills	5.9%
Diagnostic tests	5.9%
Writing skills; written communication	4.1%
Gross pathology	2.9%
Anatomy	2.4%
Data collection	2.3%
Biosecurity	2.2%
Animal use and biosafety regulations (IACUC)	1.7%
Euthanasia	1.7%
Principles of sample collection	1.6%
Laboratory skills	1.4%
Quality control	1.4%
Test validation	1.4%
Quality management	1.4%
Pharmaceuticals and their mode of action	1.2%
Data management	1.2%
Disease pathogenesis	1.1%
Food safety regulations	1.1%
Contamination and adulteration	1.0%
Economics	1.0%
Hatchery management	1.0%
Audit training	0.9%
Processing plant management	0.9%
Immunology	0.9%
Media training	0.8%
Nutrition	0.8%
Bird behavior	0.8%
Embryology	0.7%
Workplace regulations (e.g. OSHA)	0.7%

KSAs - in order by weight, continued	Weight
Cytology and histopathology	0.6%
Parasitology	0.6%
Statistics	0.6%
C&D (cleaning and disinfection)	0.5%
Performance standards	0.5%
Knowledge of biosecurity equipment (e.g., PPE)	0.5%
Neurology	0.5%
Experimental design	0.4%
Isolation and containment	0.4%
Logistics	0.4%
Clinical examination	0.4%
Records assessment	0.4%
Microbiology	0.2%
Environmental regulations (e.g., EPA)	0.2%