



AMERICAN COLLEGE OF VETERINARY SURGEONS
PHASE I SURGICAL KNOWLEDGE EXAMINATION
INFORMATION PAMPHLET

Examination Dates

Americas and Europe: April 8, 2024

Asia and Oceania: April 9, 2024

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Note: This Pamphlet reflects the policies and procedures as of September 2023. All policies and procedures are subject to change. If you have questions or require further information, please visit www.acvs.org or contact the ACVS staff at (301) 916-0200 x123.

REQUIREMENTS FOR BOARD CERTIFICATION

In order to achieve board certification, individuals must obtain each of the credentials outlined below.

- A. Acceptance into an ACVS Registered Residency Training Program.
- B. Successful completion and approval of all Resident Training Requirements.
- C. Successful submission and acceptance of a scientific manuscript in an approved journal as outlined in the Publication Requirement.
- D. Submission and acceptance of a Credentials Application.
- E. Successful passing of all components of the Examination.

The ACVS Examination consists of two parts: Phase I Surgical Knowledge and Phase II Surgical Competency. It is highly recommended that Phase I be taken during year 2 of the residency. Phase II is taken after the residency.

POLICIES FOR ACTIVE/POST-PROGRAM RESIDENTS

These policies apply to individuals who started their training after August 1, 2012.

ELIGIBILITY FOR THE PHASE I EXAMINATION

To be eligible to take the Phase I Examination, the resident advisor must attest in [CERT](#) that the resident is in good standing with their program. Refer to the [Residency Training Standards and Requirements](#) for complete policies. Instructions for the resident advisor to complete the eligibility form are on the ACVS website.

RETAKING THE EXAMINATION

Residents who fail the Phase I examination must register with ACVS by the established registration deadline (approximately November 1) in the year immediately preceding the desired examination. Residents should be sure that the ACVS office has their current contact information, including email.

Residents who do not pass the Phase I examination may take it again the next year, subject to time limits and continued good standing with their programs, as detailed in the [Residency Training Standards and Requirements](#). Verification of eligibility by the resident advisor is required only once if the resident maintains good standing. Only loss of good standing will require additional verification when good standing status is reinstated.

LIMITATIONS

The Phase I examination is considered a resident training requirement and must be passed within six years of the start of the residency.

POLICIES FOR INDIVIDUALS TRANSITIONING FROM THE TRADITIONAL CERTIFICATION EXAMINATION

Candidates transitioning from the traditional examination are required to take the Phase I examination if they did not pass the written examination as of February 2018, or the Phase I examination in subsequent years.

Each candidate required to take both the Phase I and Phase II examinations should register for both examinations in the same calendar year. Candidates must pass both Phase I and Phase II within three calendar years, although those years do not need to be consecutive (for example, 2019, 2021, 2022). Candidates who choose not to register for both Phase I and Phase II in the same calendar year may forfeit an attempt at the examination for which they did not register. If you take either or both examinations within a single calendar year, that counts as one attempt. Candidates are given three attempts to pass both examinations. Recredentialing will be required if the candidate has not successfully completed all required examinations (Phase I and/or Phase II) as applicable within 3 attempts per examination.

RETAKING THE EXAMINATION

Candidates who fail the Phase I examination must register with ACVS by the established registration deadline (approximately November 1) in the year immediately preceding the desired examination. Candidates should be sure that the ACVS office has their current contact information, including email.

CANDIDATES WHO DID NOT PASS THE THIRD ATTEMPT

Failure to successfully complete the Phase I examination within three (3) attempts will require submission of a recredentialing application to the Resident Credentialing Committee. Upon approval of the application by the ACVS Board of Regents, complete re-examination is required. The Phase I examination is required if the written or Phase I examination has never been passed. Both sections of the Phase II examination are required following recredentialing. Candidates should contact the ACVS office regarding current credentials application requirements.

LIMITATIONS

The limitations policy adopted by ACVS in 2019 is: candidates who began in the traditional certification examination process and must pass the Phase I examination are given two options, whichever allows the greater number of examination attempts: 1) a maximum of six examination attempts within nine years from acceptance of their credentials application, or 2) candidates who have taken the Phase I examination six times or more by 2020 may take the examination two more times before 2023 (i.e., the last examination is in 2022), subject to successful recredentialing. Candidates who began in the traditional certification examination process and must pass both the Phase I and Phase II examinations are subject to these time limits for both examinations.

Any candidate who has not passed both examinations after six attempts, or, if applicable, before 2023, will be required to restart the process to achieve ACVS board certification and meet all requirements (new residency, Phase I examination, acceptance of credentials, Phase II examination, etc.).

TAKING THE PHASE II SURGICAL COMPETENCY EXAMINATION

The Phase II examination is offered in mid-to-late February each year.

For active/post-program residents to be eligible to take the Phase II examination, all resident training requirements must be completed and approved by the RCC; the Phase I examination must be successfully passed; and a credentials application must be approved by the Resident Credentialing Committee and ACVS Board of Regents.

Transitioning candidates may take the Phase II examination at any time within the current cycle of three attempts.

CERTIFICATION FOR TRANSITIONING CANDIDATES

Transitioning candidates who pass all required examinations will be issued a time-limited certificate indicating that they are a Diplomate of the American College of Veterinary Surgeons in Large Animal Surgery or Small Animal Surgery. Time-limited certificates will be good for five years. Diplomates with time-limited certificates will need to document continuous maintenance of certification through a variety of activities, such as attending or presenting at continuing education meetings, publishing manuscripts, serving on select ACVS committees, and participating in resident training. The process for [maintenance of certification](#) is posted on the ACVS website.

EXAMINATION DESCRIPTION

The Phase I Surgical Knowledge Examination will be held **at Pearson VUE test centers on April 8, 2024, in the Americas and Europe and on April 9, 2024, in Asia and Oceania.**

The Phase I examination is developed to test the resident's knowledge base of the basic sciences relative to each of an animal's systems (e.g., gastrointestinal, musculoskeletal, cardiovascular) and of general pharmacology, surgical knowledge, and anesthetic principles.

- The Phase I examination consists of 125 multiple choice questions that each have one correct answer. These questions are administered in a seven-hour examination period at a Pearson VUE test center in the continental United States and Canada. **The examination will be split into two parts. Each part will have an equal portion of time.** Within each part of the exam, candidates can review all questions for that part of the exam. There will be an optional break of up to one hour between the two parts of the examination. The test time will stop during this break. Candidates will not be able to return to the first part after the break.
- Candidates may take unscheduled breaks during the two examination parts. Please note, however, that test time will not stop during unscheduled breaks.
- Candidates must remain at the test center during the optional, scheduled break. During the break, candidates may access food/snacks in their lockers, as well as medication and [comfort aids as defined by Pearson VUE](#) (e.g., cough drops, inhaler, diabetic tools—see link for full list). Candidates are not permitted to access notes, phones, or study materials during the breaks. Food and drink are prohibited within the testing rooms.

The Phase I examination consists of questions that cover gastrointestinal, cardiovascular, respiratory, musculoskeletal, urogenital, neurological/special senses, endocrine (small animal only), and integumentary systems. In each organ system, questions will be asked on basic sciences (anatomy, physiology, pathobiology). Non-system-specific questions will be asked on pharmacology, surgical principles, and principles of anesthesia/analgesia and pain management. The ACVS Examination Committee members develop new Phase I questions each year. These questions are reviewed for relevance to the examination blueprint (included in this pamphlet), clarity, and importance for competent practice. Each question is validated by securing a reference source that corroborates the information in the question. The sources used comprise current veterinary textbooks and current medical texts including, but not limited to, the recommended reading list. Approximately ten (10) pre-selected pilot questions are included in each year's Phase I examination. These questions are included to collect statistical information for determining whether they should be used as scored questions on future examinations. They do not contribute to the total examination score. The Phase I examination is computer scored.

EXAMINATION RULES

The integrity of the Phase I examination of the American College of Veterinary Surgeons will be maintained to ensure fairness to all candidates during the test. Any questions or concerns should be directed to the ACVS ombuds via the ACVS office.

The deadline for registering for the examination is October 31, 2023. The online registration process must be completed by 11:59 pm EST and fees paid online or received by ACVS no later than this date. ACVS will not allow late submission of registration or payment due to delivery service problems, insufficient postage, international customs, computer/internet issues, etc.

REGISTERING FOR THE EXAMINATION

Registering for the examination consists of submitting the online application and paying the examination fee.

Deadline: Submit your online registration and examination fee payment no later than **11:59 pm Eastern Standard Time, October 31, 2023**. Mailed or faxed examination fee payments must arrive *by close of business (5 pm Eastern time) on October 31, 2023*, at the ACVS office.

Prerequisites for registering for the examination are maintaining good standing with the residency program and a completed eligibility statement from the resident advisor in CERT.

SUBMIT THE ONLINE REGISTRATION APPLICATION

Candidates must register online for the Phase I examination in [CERT](#). Online registration opens September 29 for eligible candidates. During the registration process, candidates will need to:

- 1) Agree to the terms and conditions of the **ACVS Phase I Surgical Knowledge Examination Contract**. Candidates who fail to agree with these terms will not be allowed to take the Phase I examination.
- 2) Indicate whether they wish to [request an accommodation](#) for a disability or a health-related concern. Candidates requesting accommodations must indicate desired accommodations and upload **all** supporting documentation from an appropriate health care professional (e.g., physician, psychologist, psychiatrist) certifying the disability.
- 3) Provide their full name as it appears on a government-issue photo ID. Candidates are required to show one (1) **VALID** government-issued photo ID with signature at the test center. The name on the ID must match the name provided during the registration process exactly or the candidate will be turned away from the test center.
- 4) Provide their current address to assist with Pearson VUE appointment scheduling, as well as a mobile phone number.
- 5) Indicate how the examination fee is being paid.

PAY THE EXAMINATION FEE

Phase I examination fee = \$650

The examination fee is refundable only due to extenuating circumstances (see [Cancellation and Refund](#)).

Paying the examination fee is the final step in the Phase I registration process. Payment options include:

- Pay the fee online with a Visa, MasterCard, or American Express during examination registration in CERT.
- Pay the fee offline by check or credit card. To do so, choose Pay by Check in CERT, then complete the [Phase I Payment Authorization Form](#).
 - Fax to: (301) 916-2287
 - Mail to:

ACVS
19785 Crystal Rock Drive, Suite 305
Germantown, MD 20874
USA

CONFIRMATION

Candidates will receive an email upon successful submission of their online registration. Candidates who pay the examination fee online will receive an email upon completing the transaction. These emails note only receipt of the registration or payment and do not indicate that the registration is complete. ACVS staff will review the registration application for completeness within 7–10 business days and contact candidates with any questions.

Candidates whose examination materials are in order will receive an Examination Authorization email from ACVS on or shortly before November 18, 2023. This email will include the Candidate ID number and Authorization ID number. Both numbers are required to schedule and take the examination at a Pearson VUE test center.

If a candidate submits a registration and does not receive the Examination Authorization email from ACVS on November 18, the candidate should contact the ACVS staff immediately. Note: Candidates are responsible for notifying ACVS of any address and email changes prior to and following the examination.

REQUESTING AN ACCOMMODATION

ACVS complies with the Americans with Disabilities Act (ADA) of 1990 and the ADA Amendments Act of 2008. To ensure equal opportunities for all qualified persons, ACVS will provide reasonable accommodations for candidates when appropriate. Additionally, ACVS will provide reasonable accommodations for certain health-related needs.

All candidates who intend to take the 2024 ACVS Phase I Surgical Knowledge Examination must indicate whether they wish to request an accommodation during the online registration process. If a disability or impairment is identified after the registration deadline, the candidate must notify ACVS within 30 days of the diagnosis or recognition of the disability or impairment. ACVS will consider requests received up to 60 days prior to the examination but cannot guarantee that such requests will be granted or that a candidate will be able to keep their current appointment if accommodations are granted.

Candidates who request accommodations will be notified separately of the determination. The Phase I examination is conducted at test centers. The test centers are not authorized to make accommodations that have not been approved by ACVS. Certain accommodations are offered at only select test centers.

Accommodations are not required for items on the [Pearson VUE comfort aids list](#).

Accommodation will not be granted retroactively. Therefore, if a candidate informs ACVS of impairment or disability after an examination has been completed, no changes can be made to that candidate's examination results or to how that candidate's examination is graded.

ACCOMMODATIONS REQUESTS FOR DISABILITIES

Candidates who request an accommodation will need to indicate the type of disability, how long they have had the disability, and the type of accommodation requested. Additionally, candidates will need to indicate past accommodations made in college or veterinary school.

The following documentation must be uploaded into the CERT system. This documentation will be reviewed by ACVS staff and select members of the Examination Committee for the purpose of ensuring the correct documentation has been submitted and evaluating the request for the accommodation.

- 1) Written documentation from an appropriate health care professional (e.g., physician, psychologist, psychiatrist) certifying your disability and the accommodation being requested. This documentation must be on letterhead, dated, and signed, and must include the name, title, professional credentials, and contact information of the qualified health care professional.
 - a) For physical or sensory disabilities of a permanent or unchanging nature (e.g., loss of limb, loss of hearing), documentation must include a brief statement from a qualified professional confirming the condition and describing the impact of the disability on the individual.
 - b) For disabilities of a non-permanent nature, written documentation must be current* and include:
 - i) a diagnosis of your health condition;
 - ii) when the diagnosis was originally made and reassessed, if applicable;
 - iii) a description of the assessment and a copy of the assessment; and,
 - iv) a specific recommendation and justification for the accommodation being requested.

*Current written documentation is defined as having been completed within the following timeframes:

- last five (5) years for learning disabilities (LD), autism spectrum disorder (ASD), or intellectual disability (ID)
- last three (3) years for attention deficit hyperactivity disorder (ADHD) and all other disabilities, excluding physical or sensory disabilities of a permanent or unchanging nature
- last six (6) months for psychiatric disabilities

- 2) Attach written documentation from the institution with the dates and special services and testing accommodations you received during the course of your education because of your disability.

ACCOMMODATIONS REQUESTS FOR HEALTH-RELATED NEEDS

Candidates who have special needs that are not generally covered by the ADA (e.g., injury, broken limb, pregnancy, lactation) may request courtesy accommodations and submit applicable materials in CERT. Courtesy accommodations also include any requests to bring medical items or comfort aids not on the [Pearson VUE comfort aids list](#). Candidates requesting accommodations due to lactation should review the Pearson VUE policy for [Testing Exceptions for Nursing Mothers](#).

Candidates should indicate specific accommodations being requested and upload written documentation from an appropriate health care professional (e.g., physician) attesting to the health condition and supporting the accommodation being requested. This documentation must be on letterhead, dated, and signed, and must include the name, title, professional credentials, and contact information of the qualified health care professional. This documentation will be reviewed by ACVS staff and select members of the Examination Committee to ensure the correct documentation has been submitted and evaluate the request for the accommodation.

SCHEDULING THE EXAMINATION AT A TEST CENTER

The Phase I examination is held at Pearson VUE test centers. Candidates may schedule their test appointment online at www.pearsonvue.com/acvs or by telephone. To schedule online, you must first create a Pearson VUE web account. *Please note that account activation may require up to 24 hours.* Pearson VUE will notify you by email when your account is activated.

To schedule your examination and to create an online account, **you will need the Candidate ID and Authorization ID from your Examination Authorization email** (emailed by ACVS no later than November 18, 2023). Test appointments may be made up to one business day in advance but be aware that many test centers fill prior to the examination period. **You are encouraged to schedule your appointment as soon as you receive the account activation email from Pearson VUE.**

Please note that ACVS candidates are competing for space at test centers with candidates from other examinations. ACVS has made every attempt to authorize candidates as early as possible before the scheduled examination date. **Candidates should make appointments with Pearson VUE promptly after receiving their Examination Authorization email to ensure an appointment with minimal travel required.**

CANCELLATION AND REFUND

If a candidate needs to cancel their examination registration, the candidate must contact ACVS and cancel the Pearson VUE appointment.

Failure to cancel the Pearson VUE appointment more than 24 hours prior to the scheduled start time will result in a no-show fee for which the individual is responsible. ACVS will invoice such candidates for the fee (\$100-300 per section, depending on appointment length) following the examination dates or deduct the no-show fee from any refund of the examination fee.

Examination fees will be refunded only in cases of extenuating circumstances (e.g., death in the family, medical emergency) and must be supported by written documentation. Allow 30 days for processing refund requests. No-show fees will be deducted from any refund if the candidate was not previously invoiced. All requests for refunds must be submitted in writing using one of the following methods:

ACVS
19785 Crystal Rock Drive, Suite 305
Germantown, MD 20874
USA
acvs@acvs.org
fax: (301) 916-2287

AT THE TEST CENTER

Candidates should refer to the most up-to-date details in their confirmation email from Pearson VUE, as well the Pearson website at <https://home.pearsonvue.com/coronavirus-update> for the latest policies and requirements.

- 1) Candidates should arrive at the test center 30 minutes before the scheduled appointment time. This will give you adequate time to complete the necessary sign-in procedures. Please be prepared to show one VALID (not expired), government-issued identification, in the name in which you registered, bearing your photograph and signature. Acceptable forms of government-issued identification include photo-bearing driver licenses and passports.

- 2) If you arrive more than 15 minutes late for your appointment, you may be refused admission.
- 3) No personal items may be taken into the testing room. This includes all bags, books, notes, phones, pagers, watches, and wallets. Personal items are stored in lockers.
- 4) Giving or receiving assistance pertaining to information on the examination prior to, during, or after the test period is unethical and not permitted. (See [Examination Security](#).)
- 5) The use of information aids during the examination is not permitted.
- 6) Candidates will be provided erasable whiteboards to use during the examination.

TEST CENTER AVAILABILITY/CONTINGENCY PLANNING

The Phase I examination is offered only one time each year. ACVS is developing a contingency plan in the event of local, regional, or widespread problems. This contingency plan will be published on the ACVS website when it is finalized.

2024 PHASE I EXAMINATION READING LIST

The following references and books are suggested reading in preparation for the 2024 Phase I examination. Other textbooks and current references may be pertinent. Page numbers refer to print textbooks. Digital versions may have different page numbers.

SELECTED REFERENCES FOR SMALL ANIMAL SURGERY

- 1) Johnston, S., and K. Tobias. *Veterinary Surgery: Small Animal*. 2nd ed. Elsevier, 2018.*
- 2) Hall, J. E., and M. E. Hall. *Guyton and Hall Textbook of Medical Physiology*. 14th ed. Elsevier, 2020. *Chapters 4-16, 20, 22, 25, 30-31, 37-43, 50, 61, 63-65, 71*
- 3) Grimm, K., L. Lamont, W. Tranquilli, S. Greene, and S. Robertson, eds. *Veterinary Anesthesia and Analgesia, The 5th of Lumb and Jones*. 5th ed. Wiley-Blackwell, 2015. *Chapters 1-36, 44-45, 53-57.*
- 4) Boothe, D. M. *Small Animal Clinical Pharmacology and Therapeutics*. 2nd ed. Elsevier, 2011. *Chapter 6 (Principles of Antimicrobial Therapy), Chapter 7 (Antimicrobial Drugs), Chapter 19 (GI Physiology), and Chapter 29 (Anti-Inflammatory Drugs).*
- 5) Johnson, A. L., J. E.F. Houlton, and R. Vannini. *AO Principles of Fracture Management in the Dog and Cat*. AO Publishing, 2005. *Chapters 1, 2, 3, 20, 27.*

Knowledge of basic and applied anatomy is assumed and should be reviewed in an appropriate text. For example, Hermanson, J.W., and A. de LaHunta. *Miller's Anatomy of the Dog*. 5th ed. Elsevier, 2019.

*Phase I portions of Johnston and Tobias. Please note that if no page numbers are given, the entire chapter is included.

<i>Veterinary Surgery: Small Animal, 2nd Edition, Johnston and Tobias, 2018</i>		
Chapter	Title	Pages (full chapter unless specific pages are noted)
<i>Surgical Biology</i>		
Chapter 1	Inflammatory Response	
Chapter 2	Molecular and Cellular Biology: Genomics	
Chapter 3	Stem Cells and Regenerative Therapy	
Chapter 4	Platelet Rich Plasma and Autologous Conditioned Sera	
Chapter 5	Fluid Therapy	
Chapter 6	Shock	
Chapter 7	Bleeding and Hemostasis	

Chapter	Title	Pages (full chapter unless specific pages are noted)
Chapter 8	Metabolism and Nutritional Needs of Surgical Patients	
Chapter 9	Wound Healing	
Chapter 10	Wound Infections and Antimicrobial Use	
<i>Surgical Methods and Perioperative Care</i>		
Chapter 11	Sterilization	
Chapter 12	Instrumentation	
Chapter 13	The Operating Room	
Chapter 14	Monitoring for Surgical Infection	
Chapter 15	Principles and Use of Energy Sources in Small Animal Surgery: Electrosurgery and Laser Applications	
Chapter 16	Suture Material, Tissue Staplers, Ligation Devices, and Closure Methods	
Chapter 17	Instrument and Tissue Handling Techniques	
Chapter 18	Surgical Hemostasis	
Chapter 19	Bandages and Drains	
Chapter 20	Biopsy General Principles	
Chapter 21	Anesthesia Principles and Monitoring	
Chapter 22	Anesthetic Practice for Existing Conditions	
Chapter 23	Fundamentals of Interventional Radiology and Interventional Endoscopy	
Chapter 24	Fundamentals of Laparoscopy and Thoracoscopy	

Chapter	Title	Pages (full chapter unless specific pages are noted)
Chapter 25	Introduction to Oncologic Surgery for the General Surgeon	
<i>Neurosurgery</i>		
Chapter 26	Neurologic Examination and Neuroanatomic Diagnosis	
Chapter 28	Imaging of the Neurologic System	
Chapter 29	Pathogenesis and Physiology of Central Nervous System Disease and Injury	
<i>Musculoskeletal System</i>		
Chapter 38	Tissues of the Musculoskeletal System	
Chapter 39	Bone Biomechanics and Fracture Biology	
Chapter 40	Open Fractures	
Chapter 41	Internal Fracture Fixation	
Chapter 42	External Skeletal Fixation	
Chapter 43	Overview of Minimally Invasive Osteosynthesis Principles	
Chapter 44	Bandaging, External Coaptation, and External Devices for Companion Animals	
Chapter 45	Delayed Unions, Non-unions, and Malunions	
Chapter 47	Osteomyelitis and Implant-Associated Infections	
Chapter 48	Bone Grafts and Substitutes	
Chapter 68	Arthritis	

Chapter	Title	Pages (full chapter unless specific pages are noted)
Chapter 70	Muscle and Tendon Disorders	1316-1317 (stop at general principles on treatment) 1319-1321 (stop at specific tendon problems)
Chapter 71	Arthroscopy	1323-1331 (stop at basic techniques of small animal arthroscopy)
Chapter 73	Osteochondrosis	1372-1380 (stop at principles of osteochondrosis diagnosis)
Chapter 74	Gait Analysis	
<i>Skin and Reconstruction</i>		
Chapter 75	Primary Wound Closure	
Chapter 76	Open Wounds	
Chapter 81	Burns	1495-1500 (stop at burn treatment)
<i>Abdomen</i>		
Chapter 83	Spleen	1551-1557 (stop at surgical techniques)
Chapter 84	Abdominal Wall Reconstruction and Hernias	1564-1567 (stop at principles of abdominal hernia repair)
Chapter 85	Diaphragmatic Hernias	1592-1593 (stop at surgical approaches)
Chapter 86	Peritoneum and Retroperitoneum	1603-1615 (stop at pathophysiology)

Chapter	Title	Pages (full chapter unless specific pages are noted)
<i>Digestive System</i>		
Chapter 87	Soft Tissues of the Oral Cavity	1637-1641 (stop at general considerations)
Chapter 88	Salivary Glands	1653-1655 (stop at nonsurgical salivary gland disease)
Chapter 89	Mandibulectomy and Maxillectomy page	1663-1664 (stop at canine oral tumors)
Chapter 90	Esophagus	1677-1681 (stop at surgical approaches to the esophagus)
Chapter 91	Stomach	1700-1704 (stop at general surgical principles)
Chapter 92	Small Intestine	1730-1740 (stop at surgical procedures)
Chapter 93	Colon	1761-1768 (stop at techniques for colonic wound closure)
Chapter 94	Rectum, Anus, and Perineum	1783-1787 (stop at surgical approaches)
Chapter 95	Liver and Biliary System	1828-1834 (stop at hepatobiliary imaging)
Chapter 96	Hepatic Vascular Anomalies	1852-1858 (stop at diagnostic evaluation)
Chapter 97	Pancreas	1886-1891 (stop at specific surgical procedures)
Chapter 98	Feeding tubes	1915-1917 (start at tube feeding specifics)

Chapter	Title	Pages (full chapter unless specific pages are noted)
<i>Respiratory System</i>		
Chapter 99	Nasal Planum, Nasal Cavity, and Sinuses	1919-1920 (stop at diagnostic approach) + Figure 99.6 on page 1928
Chapter 100	Palate	1935-1938 (stop at palate defects)
Chapter 101	Larynx	1946-1949 (stop at laryngeal neoplasia)
Chapter 102	Trachea and Bronchi	1963-1965 (stop at techniques: general)
Chapter 103	Lungs	1983-1987 (stop at postoperative monitoring)
<i>Thorax</i>		
Chapter 104	Thoracic Wall	2001-2006 (stop at surgical approaches to the thorax)
Chapter 105	Thoracic Cavity	2019-2027 (stop at diagnostic imaging)
<i>Cardiovascular System</i>		
Chapter 106	Cardiac Surgery	2049-2055 (stop at strategies for cardiac surgery)
Chapter 107	Pericardial Surgery	2084-2085 (stop at congenital pericardial diseases)
Chapter 108	Vascular Surgery	2093-2103 (stop at endovascular surgery)

Chapter	Title	Pages (full chapter unless specific pages are noted)
<i>Urogenital System</i>		
Chapter 109	Ovaries and Uterus	2109-2114 (stop at surgery and outcome)
Chapter 110	Vagina, Vestibule, and Vulva	2130-2132 (stop at surgical approaches)
Chapter 111	Testes, Epididymides, and Scrotum	2142-2145 (stop at disorders)
Chapter 112	Penis and Prepuce	2158-2161 (stop at specific disorders)
Chapter 113	Prostate	2168-2171 (stop at diagnostic approach to prostatic disease in the dog)
Chapter 114	Kidneys	2184-2188 (stop at preoperative management)
Chapter 115	Ureters	2202-2204 (stop at ureteral obstruction)
Chapter 116	Bladder	2219-2222 (stop at diagnostic techniques)
Chapter	Title	Pages (full chapter unless specific pages are noted)
Chapter 117	Urethra	2234-2239 (stop at surgical procedures)
Chapter 118	Sphincter mechanism Incontinence	2256 (stop at diagnostic assessment)

Chapter	Title	Pages (full chapter unless specific pages are noted)
<i>Endocrine System</i>		
Chapter 120	Adrenal Glands	2281-2283 (stop at diagnosis of functional adrenal tumors)
Chapter 121	Thyroid and Parathyroid Glands	2291-2293 (stop at feline hyperthyroidism)
<i>Ear</i>		
Chapter 122	Pinna and External Ear Canal	2309-2311 (stop at conditions affecting the pinna)
Chapter 123	Middle and Inner Ear	2328-2331 (stop at inflammatory disease of the middle ear)
Chapter 124	Eye	2343-2344: Eyelids Anatomy and physiology (stop at special surgical considerations) 2358: Conjunctiva (stop at diseases of the conjunctiva) 2360: Nictitating membrane (stop at everted nictitating membrane) 2363-2364: Cornea (stop at indolent ulcers) 2365: Orbit (stop at clinical signs of orbital disease)

SELECTED REFERENCES FOR LARGE ANIMAL SURGERY

- 1) Auer, J., and J. Stick. *Equine Surgery*. 5th ed. Elsevier, 2018. *Chapters 1-25, 42, 50, 68-73, 75-80, 105* in their entirety; in addition, information relevant to anatomy, physiology, and fundamental pathophysiology in *Chapters 26-41, 43-67, 74, 81-104*. This information is generally (but not always) found within the first few pages of the chapter; it may be scattered throughout.
- 2) Nixon, A. J., ed. *Equine Fracture Repair*. 2nd ed. Wiley-Blackwell, 2020. *Chapters 1-13, 43-49*.
- 3) Klein, B. *Cunningham's Textbook of Veterinary Physiology*. 6th ed. Elsevier, 2019.
- 4) Muir, W. W., and J. A.E. Hubbell, eds. *Equine Anesthesia: Monitoring and Emergency Therapy*. Elsevier, 2009.
- 5) Fubini, S. L., and N. G. Ducharme. *Farm Animal Surgery*. 2nd ed. W B Saunders Co., 2017. *Chapters 1-8* in their entirety; in addition, information relevant to anatomy, physiology, and fundamental pathophysiology in *Chapters 12-24*—this information is generally found within the first few pages of the chapter.
- 6) McIlwraith, C. W., I. Wright, and A. Nixon. *Diagnostic and Surgical Arthroscopy in the Horse*. 4th ed. Elsevier, 2014. *Chapters 1-3*.
- 7) Boothe, D. M. *Small Animal Clinical Pharmacology and Therapeutics*. 2nd ed. Elsevier, 2011. *Chapters 6, 7, 29*.
- 8) Ragle, C. A., ed. *Advances in Equine Laparoscopy*. 1st ed. Wiley-Blackwell, 2012. *Chapters 1-6*.
- 9) Theoret, C., and J. Schumacher, eds. *Equine Wound Management*. 3rd ed. Wiley, 2017. *Chapters 1-5*.

Knowledge of basic and applied anatomy is assumed and should be reviewed in an appropriate text. For example: Singh, B. *Dyce, Sack, and Wensing's Textbook of Veterinary Anatomy*. 5th ed. Elsevier, 2017.

PHASE I EXAMINATION BLUEPRINT

SECTION I. Questions will pertain to surgical topics and conditions in:

- a) Small Animal Examination: Domestic canine and feline, and non-species-specific
- b) Large Animal Examination: Equine, food animal, small ruminant, camelid, and non-species-specific.

SECTION II. The test questions are distributed across four disciplines. The approximate percentage of questions devoted to each of several knowledge areas within each discipline is shown below:

Small Animal Discipline	% of Small Animal Examination
Basic Science <ul style="list-style-type: none"> • Anatomy 14% • Physiology 12% • Pathobiology 10% 	
Pharmacology <ul style="list-style-type: none"> • Antimicrobials 5% • C-V/Autonomic Drugs 4% • Fluid Therapy 5% • Regenerative Therapy 1% 	
Principles of Anesthesia / Analgesia and Pain Management <ul style="list-style-type: none"> • Anesthetic Equipment 3% • General Anesthesia 4% • Local Anesthesia 3% • Analgesia 4% • Anti-Inflammatory Drugs 3% 	
Surgical Principles <ul style="list-style-type: none"> • Tissue Handling / Hemostasis 8% • Asepsis 8% • Wound Healing 8% • Instrumentation / Implants 8% 	

Large Animal Discipline	% of Large Animal Examination
Basic Science <ul style="list-style-type: none"> • Anatomy 16% • Physiology 11% • Pathobiology 9% 	
Pharmacology <ul style="list-style-type: none"> • Antimicrobials 6% • Analgesics 2% • Anti-Inflammatory Drugs 2% • Fluid Therapy 4% • Regenerative Therapy 2% 	
Principles of Anesthesia / Analgesia and Pain Management <ul style="list-style-type: none"> • Anesthetic Equipment 2% • General Anesthesia 6% • Local Anesthesia 3% • Pain Management 4% 	
Surgical Principles <ul style="list-style-type: none"> • Tissue Handling / Hemostasis 9% • Asepsis 6% • Wound Healing 8% • Instrumentation / Implants 10% 	

SECTION III. Within the Basic Science discipline, questions may focus on any of the systems listed below:

- Gastrointestinal
- Cardiovascular
- Respiratory
- Urogenital
- Musculoskeletal
- Neurology/Special Senses
- Integumentary
- Endocrine (SA only)
- Non-System Specific

Each question can be assigned to one knowledge area in a discipline. For example, a question might involve cardiovascular anatomy.

SAMPLE QUESTIONS

[Sample Phase I examination questions](#) are available on the Phase I examination page of the ACVS web site.

DETERMINATION OF PASSING SCORE

Prior to test administration, the passing score is determined for the Phase I examination using a procedure called "criterion-referencing." In a criterion-referenced test, the decision about whether a given candidate passes or fails is based on whether they demonstrate criterion level job knowledge and skill on the examination, rather than a predetermined percentage of the candidates taking the examination at that time. The procedures for setting a criterion-referenced passing score are well established. The process involves the collection of judgments regarding the difficulty of each examination item. Difficulty judgments for the examination items are estimates of the probability that a minimally-qualified candidate will answer each item correctly. In this context, a "minimally-qualified" candidate possesses just enough knowledge and skill to be a Diplomate of the ACVS. Difficulty judgments are made by board certified surgeons working in private practice and academia who serve on the Examination Committee and Board of Regents. The criterion-referenced passing score of the ACVS Phase I examination is never raised after the test has been administered.

REPORTING OF RESULTS

Results of the Phase I examination are customarily emailed to all candidates within six (6) weeks after completion of the examination. Results will indicate whether the candidate passed or failed the Phase I examination. For candidates who fail, the feedback report will include performance on the various topical areas within the examination.

APPEALS

- a) **Eligibility:** Eligibility to take the Phase I examination is determined by the registered residency training program. Residents who have concerns about Phase I eligibility should discuss the question or concern with an appropriate local institutional official, the Resident Credentialing Committee director, or ACVS ombuds.
- b) **Rescoring:** The Phase I examination is administered electronically and scored by a computer. A rescoring option is not available.
- c) **Results appeal:** **Candidates who experience irregularities during the examination must inform ACVS at the earliest possible time of any irregularities.** If a candidate believes the Phase I examination results were adversely affected by extraordinary conditions during the examination, the candidate may appeal such determination. A written petition to appeal Phase I examination results must include a statement of the grounds for reconsideration with necessary and appropriate documentation addressed to the chair of the ACVS Board of Regents at the ACVS office. The petition must be postmarked to the ACVS office within 30 days from the date on which the contested ACVS determination was made. The appeal must be prepared and will be handled in accordance with the *Protocol for Processing of Appeals*. Contact the ACVS office to receive a copy of the protocol.

EXAMINATION SECURITY

1) Procedures in the Event of Unethical Behavior

- a) The validity of results awarded candidates for their performance on the American College of Veterinary Surgeons examination is protected by every means available. The American College of Veterinary Surgeons will not report results which it has determined are invalid (i.e., do not represent a reasonable assessment of the candidate's knowledge or competence sampled by the examination). The performance of all candidates is monitored and may be analyzed statistically for purposes of detecting invalid results.
- b) If evidence by observation or statistical analysis suggests that one or more candidates' results may be invalid or that exam security could have been compromised because of unethical behavior by one or more candidates prior to, during, or after the examination, the American College of Veterinary Surgeons will withhold the results pending further investigation. The affected candidate(s) will be so notified.
- c) Examples of unethical behavior affecting the validity of results or that would result in the withholding of results pending further investigation would include, but not be limited to the following: (i) copying of answers from another candidate; (ii) permitting one's answers to be copied; (iii) unauthorized possession, reproduction, or disclosure of materials, including examination questions or answers from the current or previous years' examinations, before, during, or after the examination; (iv) contact with unauthorized sources for information during the examination (i.e. notes, electronic devices, or other people) regardless of the intention; and (v) any other evidence indicating the security of the examination could have been breached.
- d) Notification of unethical behavior will be at the earliest possible time following completion of the examination. The candidate(s) will be advised of the procedure for imposing sanctions and informed that results may be withheld as invalid.
- e) On analysis of all available information in such circumstances, the American College of Veterinary Surgeons will make a determination as to the validity of the results in question and will notify the affected candidate(s). If it is determined that the results in question are invalid, they will not be released. Notification of that determination may be made to legitimately interested third parties.
- f) In such circumstances, the American College of Veterinary Surgeons will make every effort to withhold the results of only those candidates directly implicated in the unethical behavior. In some instances, the evidence of unethical behavior is sufficiently strong to cast doubt on the validity of all results, and this evidence may not enable the American College of Veterinary Surgeons to identify the particular candidates involved therein. In such circumstances, the American College of Veterinary Surgeons reserves the right to withhold the results of candidates not directly implicated in the unethical behavior during the investigation.
- g) Candidates or other persons who are directly implicated in an unethical behavior affecting the validity of the examination results or compromising examination security are subject to additional sanctions, including being barred permanently from all future examinations, termination of participation in an ongoing examination, invalidation of results of the examination, withholding or revoking certification, being prosecuted for violation of copyright laws, or other appropriate action. Candidates or other persons subject to such additional sanctions will be provided with written notice of the charges and an opportunity to respond to such charges in accordance with the procedures set forth in the *Procedure for*

Imposition of Sanctions on Candidates Accused of Unethical Behavior section of this information pamphlet.

- h) Candidates or other persons who engage in other forms of unethical behavior, associated with any aspect of the examination, regardless of any impact on an individual's results, are also subject to the foregoing additional sanctions. Examples of such unethical behavior include, among other things: false statements to or submission of falsified documents to the American College of Veterinary Surgeons; the use of any falsified American College of Veterinary Surgeons' documents or the submission of such documents to other persons; or the offer of any financial or other benefit to any persons, officer, employee, proctor, or other agent or representative of the American College of Veterinary Surgeons in return for any right, privilege, or benefit which is not usually granted by the American College of Veterinary Surgeons to other similarly situated candidates or persons. Candidates or other persons subject to such additional sanctions will be provided with written notice of the charges and an opportunity to respond to such charges in accordance with the procedures set forth in the *Procedure or Imposition of Sanctions on Candidates Accused of Unethical Behavior* section of this information pamphlet.

2) **Procedure for Imposition of Sanctions on Candidates Accused of Unethical Behavior**

- a) If the American College of Veterinary Surgeons has reason to believe that a candidate engaged in unethical behavior, the American College of Veterinary Surgeons shall provide written notice to the accused which will include: (i) the suspected unethical activity; (ii) the opportunity to defend against the charges in writing or at a hearing before a Special Committee of the American College of Veterinary Surgeons; and (iii) the sanction or sanctions which the American College of Veterinary Surgeons may impose if the accused fails to defend against the charges or, if after considering the defense, the Special Committee determines that the accused actually engaged in unethical behavior.
- b) Within twenty (20) days after receiving aforementioned notice, the accused shall advise the Chief Executive Officer of the American College of Veterinary Surgeons, in writing, whether he or she wishes to defend against the charges and, if so, whether he or she wishes to make such a defense in writing or at a hearing. If the accused fails to respond, the American College of Veterinary Surgeons may impose on the accused any of the sanctions identified in the Examination Contract.
- c) Within twenty (20) days after receipt of the accused's request for an opportunity to defend against the charges, the Chief Executive Officer of the American College of Veterinary Surgeons shall provide the accused with a written summary of the incriminating evidence, including copies of any relevant documentary evidence. If the accused has requested an opportunity to defend against the charges in writing only, the accused shall file his or her written defense with the American College of Veterinary Surgeons within thirty (30) days after issuance of the Chief Executive Officer's written summary of evidence. The Special Committee of the American College of Veterinary Surgeons shall issue its written decision to the Chief Executive Officer and the accused as soon as possible thereafter. If a hearing has been requested, the American College of Veterinary Surgeons shall schedule the hearing at a mutually convenient time and place before a Special Committee within thirty (30) days after issuance of the American College of Veterinary Surgeons' written summary of evidence, and the Special Committee shall issue its written decision as soon as possible thereafter.
- d) A Special Committee consisting of three (3) Diplomates appointed by the Chair of the Board of Regents of the American College of Veterinary Surgeons, who were not involved in the investigation of the allegations against the accused, shall rule on the accused's defense and, if necessary, preside at the hearing. A transcript of the hearing, if any, shall be kept.

- e) The written decision of the Special Committee may be appealed in writing by the accused to the entire Board of Regents of the American College of Veterinary Surgeons within fifteen (15) days of the accused's receipt of such decision. The entire Board of Regents will review all of the evidence considered by the Special Committee, but it will not consider any evidence not previously presented to the Committee. The entire Board of Regents may affirm or reverse the decision of the Special Committee, remand the matter to the Special Committee for further consideration with precise instruction as to the basis of such reconsideration, or modify the sanctions imposed by the Special Committee. No person who served on the Special Committee shall vote or otherwise participate in the Board of Regents' review of the Special Committee's written decision.
- f) The Board of Regents will inform in writing the Director of Certification and the Examination Committee chair of the final decision, including the salient reasoning behind the decision, within thirty (30) days of the final decision (after all appeal deadlines have expired or the appeal process has been completed).
- g) All notices or other correspondence directed to the American College of Veterinary Surgeons or the Special Committee should be sent to the office of the American College of Veterinary Surgeons, 19785 Crystal Rock Drive, Suite 305, Germantown, MD 20874-4700.