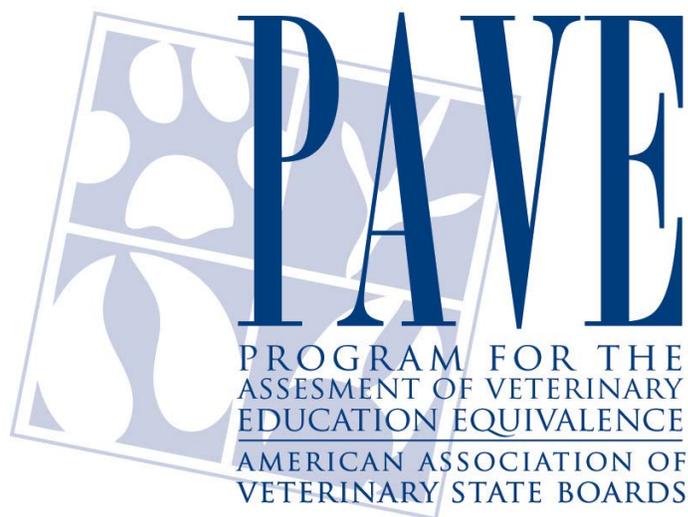


# QUALIFYING SCIENCE EXAMINATION

## CANDIDATE INFORMATION HANDBOOK



Please check [www.aavsb.org](http://www.aavsb.org) for the most updated QSE information.

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<b>Qualifying Science Examination (QSE) Blueprint</b>		
<b>Domain</b>	<b>Content Area</b>	<b>Domain %</b>
Anatomy	Gross Anatomy, Microscopic Anatomy, Physical Examination	<b>10%</b>
Physiology	Organ Physiology, Genetics, Theriogenology, Physiological Chemistry, Endocrine Physiology	<b>15%</b>
Pharmacology	Pharmacokinetics, Pharmacodynamics, Pharmacologic therapeutics, Toxicology	<b>13%</b>
Diagnostics	Microbiology, Pathology, Diagnostic Imaging, Parasitology	<b>22%</b>
Surgery	Surgery Principles, Anesthesia Principles, Analgesia, Emergency Medicine/Intensive Care	<b>12%</b>
Medicine, Ethics and Communications	Diagnosis and Treatment of Disease, Dentistry, Etiology, Client Communication and Ethics	<b>15%</b>
Preventative medicine and Public Health	Animal Welfare, Behavior, Epidemiology, Regulatory Medicine and Programs, Nutrition	<b>13%</b>
		<b>100%</b>

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## Introduction

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This candidate handbook is designed to be the main source of information for those applying to take the Program for the Assessment of Veterinary Education Equivalence (PAVE)'s Qualifying Science Examination (QSE). The handbook contains the essential information regarding eligibility requirements, application procedures and fees, appointment scheduling, examination content, and other important information and guidelines related to the examination.

The AAVSB recommends that candidates carefully read and understand all of the topics covered in this handbook. Candidates may also consult the AAVSB website ([www.aavsb.org](http://www.aavsb.org)) for additional information about the QSE.

## About the AAVSB

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The American Association of Veterinary State Boards (AAVSB) is a 501(c)(3), not-for-profit corporation dedicated to its overall objective and mission which is to provide quality resources for veterinary regulatory agencies, professionals, and allied groups in the interest of public protection.

PAVE is one of the AAVSB's major programs. The AAVSB owns the Qualifying Science Examination and oversees its administration and development.

## About the QSE

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### Purpose

The QSE is designed and used to evaluate the education equivalence of foreign veterinary graduates (graduates of non-accredited veterinary programs outside the U.S. and Canada) on behalf of participating Member Boards of the AAVSB. The examination is constantly updated, reviewed and reevaluated by highly-qualified subject matter experts. With the AAVSB's commitment to examination development, the QSE remains a valid tool, useful in the evaluation of candidates for education equivalence of foreign veterinary graduates. The QSE is one required step of the PAVE program.

The QSE has four main objectives:

- Provide a comprehensive examination in basic veterinary medical sciences for use by the PAVE program.
- Evaluate the education equivalence of veterinarians who are graduates of veterinary schools not accredited by the Council on Education of the American Veterinary Medical Association (AVMA).
- Provide a common standard for the evaluation of candidates that is comparable across jurisdictions.
- Protect the public by ensuring that veterinarians demonstrate a specified level of knowledge and skills before entering veterinary practice.

## Development

The QSE is a multiple-choice examination prepared under a contractual agreement between the AAVSB and PSI. The AAVSB is responsible for the annual development and validation of the QSE. The PAVE Committee, under guidance provided by the AAVSB and PSI, ensures that the QSE reflects a basic level of knowledge in veterinary medical sciences.

The PAVE Committee is comprised of representatives from:

- American Association of Veterinary Clinicians (AAVC)
- Association of American Veterinary Medical Colleges (AAVMC)
- Veterinarians in private practice and education

Questions for the QSE are written by veterinarians who represent all aspects of the profession, including educators, practitioners, members of specialty boards, and the national practice associations. Each newly written question is reviewed and validated by at least three experts in the field of veterinary medicine for content relevance, importance, difficulty, and correctness. These questions are then reviewed and validated by psychometricians and editors to ensure conformity to psychometric principles and to rules of grammar and style.

Once a question is accepted following this validation process, it is placed into a computerized item-banking system. The questions for potential use on the QSE are selected by the computer in accordance with the practice-based examination blueprint (test specifications, see Appendices 1A). The PAVE Committee then reviews the computer-generated test, item by item, making changes and substitutions as necessary. Following this review, the finished examination is prepared by PSI.

## Content

The QSE consists of 200 multiple-choice operational questions and 25 multiple-choice pilot questions derived from the test specifications. The QSE is delivered in a 220 minute, one single block session. The candidate's score on the QSE is based on the candidate's responses to 200 operational questions; the remaining 25 pilot questions embedded in the exam will not count towards the candidate's score. The pilot questions will be used in constructing future examinations. In the examination, the pilot questions are not marked any differently from the operational questions; thus candidates will not be able to distinguish a pilot question from an operational question.

The QSE examination covers:

- Seven (7) primary areas of responsibility (Domains)

The QSE domains of practice are the major areas of basic science or pre-clinical subjects taught in the first three years of the curriculum of accredited veterinary schools. The QSE practice domains and content areas were developed and reviewed by veterinarians through a validation survey process by the AAVSB and ProExam in 2013. A complete list of the QSE practice domains are presented within Appendices 1A.

## Administration

The web-based QSE is administered through ProExam and uCertify throughout the U.S and internationally. Please see [www.aavsb.org](http://www.aavsb.org) for current information about testing dates and application deadlines.

## Exam Security

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The QSE is the property of the AAVSB and is protected by federal copyright laws. It is a violation of those laws, and thus illegal, to share any information whatsoever about any QSE question. In particular, sharing information about a QSE question recalled from memory or asking someone who has taken the QSE to share such information is illegal.

Below is the **Candidate Agreement** which candidates must agree to in order to complete the examination application. Candidates will see the Candidate Agreement on the computer monitor before they will be able to take the examination.

I acknowledge and understand that the Qualifying Science Examination (QSE) is owned by the American Association of Veterinary State Boards (AAVSB) and is protected under applicable intellectual property rights, including copyright protections. I further acknowledge and understand that the QSE is an examination used in the PAVE certification process and the PAVE certificate is used by licensure entities as one component of determining eligibility for a credential. I affirm that I am sitting for the QSE solely for the purpose of seeking a PAVE certificate and credential.

Based upon the significance of the QSE and acknowledging the legal rights, ownership and protections of the examination in AAVSB, I hereby agree that, with the exception of previous QSE administrations, I have not had access to any part of QSE examination questions and/or responses prior to this administration of the QSE and that my responses to the questions on the QSE will be based upon my knowledge, skills, and abilities, and not prior exposure to exam questions.

I further acknowledge and understand that I will not remove QSE examination questions from the test center in any manner, including memorization, electronic downloads, recording devices, copying, or through any other means and I will not distribute or discuss any questions to any persons and in any manner whatsoever either before, during, and/or after taking the QSE. This includes through my own personal social media channels, the official AAVSB social media channels, or other social media channels.

I understand that during the examination, including breaks, I may not communicate with other candidates, refer to any materials other than those provided to me by the testing center, or assist or obtain assistance from any person.

I understand and agree to the security and confidentiality of the QSE and acknowledge that AAVSB has the right to investigate any alleged wrongdoing related to my administration of the QSE and to take action to protect the integrity of the examination and the credential process, including but not limited to withholding or invalidating my examination score and refusing to allow access to future QSE administrations.

## Preparing for the QSE

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In order to prepare for the QSE, candidates may wish to review the domain areas to be tested. In addition, the AAVSB provides sample questions which are similar to the test questions on the actual examination. QSE Reference and Abbreviations Lists are available on the AAVSB website.

## Exam Application, Eligibility and Scheduling

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**The AAVSB does not license veterinarians.**

*The information provided is for the examination process only as Step 3 in the PAVE Program. To apply for a credential, contact the state or provincial agency in the jurisdiction where you are planning to work.*

To apply for the PAVE Program and to take the QSE, candidates must *apply and pay for the exam through the PAVE online application* **and** candidates must *submit hard copy documentation for eligibility* to take the exam.

1. **Eligibility:** PAVE candidates applying to the PAVE Program and seeking to take the QSE must be eligible to take the exam. The requirements for eligibility are PAVE candidates who have successfully completed at least 50% of their veterinary curriculum, submitted all required credential documents and completed the English Proficiency requirement. More details are on the AAVSB website, [www.aavsb.org](http://www.aavsb.org).
2. **Applying:** QSE Candidates pay for the QSE exam when the online PAVE application is submitted.
3. **Exam Appointment and Location:** After the application and eligibility have been processed, candidates will be sent an Eligibility letter via email by PSI explaining where and when to report to take the QSE.

It is best to keep all exam information received from the AAVSB and PSI in one place and accessible. These organizations will be involved at different times in the exam application process.

Keep in mind for each exam administration, there are deadlines for submitting an online PAVE application and documentation. These deadlines are approximately 75 days prior to the examination date.

Examination Date	Application Window
Jan 18, 2017	Sept 1-30, 2016
May 10, 2017	Jan 3-31, 2017
Sept 13, 2017	May 1-31, 2017

### Eligibility

Eligibility to take the QSE will be confirmed **after** submission of the online PAVE

application to the AAVSB and **before** an Eligibility letter is sent via email. The eligibility review will be conducted by the AAVSB. Please visit the AAVSB website at [www.aavsb.org](http://www.aavsb.org) for the most up-to-date information on where to send documentation.

The AAVSB and PAVE defines an “international veterinary graduate” as a veterinarian whose degree was conferred by a recognized school of veterinary medicine outside of the United States and Canada. A “recognized” school is one that is recognized by the government of its country and renders its graduates eligible to practice in that country, OR, one that is recognized by the World Health Organization (WHO). U.S. citizens who have completed their veterinary education outside the U.S. in non AVMA-accredited schools are considered to be “international veterinary graduates,” while foreign nationals who have graduated from accredited schools in the U.S. or Canada are not.

### **Applying to take the QSE**

Visit [www.aavsb.org](http://www.aavsb.org) and click the link provided during the application window to apply for PAVE and the QSE. When completing the online PAVE application, the candidate’s name should be entered exactly as it appears on the ID to be used at the testing center (see ID information in the box below).

Please see [www.aavsb.org](http://www.aavsb.org) for the current PAVE application and QSE exam fee. The AAVSB accepts Visa, Discover, MasterCard and American Express.

### **Special Accommodation Requests or Medical Conditions**

The AAVSB is committed to the principle of testing individuals in a manner that will yield valid and reliable examination results. In some instances, the examination administration procedures may need to be modified to provide reasonable accommodations for candidates with disabilities. If you have a documented disability covered under the U.S. Americans with Disabilities Act Amendments Act of 2008 (ADAAA), contact the AAVSB at [pave@aavsb.org](mailto:pave@aavsb.org) before you apply to PAVE and the QSE. Candidates requesting special accommodations who cannot use the on-line application should email [pave@aavsb.org](mailto:pave@aavsb.org) or call 1-877-698-8482, ext. 228 to make other arrangements for submitting an application.

Candidates must complete the PAVE Special Accommodations application and submit supporting documentation (i.e. diagnostic reports, IEPS, 504 Education Plans, college accommodation documents, etc.) required by the AAVSB by the respective application deadlines to allow time for the AAVSB to review.

Unauthorized possession of personal items while you are in the secure areas of the test site is prohibited. However, in certain circumstances, exceptions to this policy may be made for medical reasons, provided permission is approved by the AAVSB prior to the application deadline. If you have a medical condition that requires you to use medication, an external appliance, or an electronic device in the secure areas of the test site, please submit an emailed written request and supporting documentation to the AAVSB at the time of your QSE application.

Examples of appliances and devices to which this policy applies include, but are not

limited to, insulin pumps, inhalers, medications, hearing aids, wheelchairs, canes, crutches, and casts. If you are unsure whether you should request an exception, please contact the AAVSB at [pave@aavsb.org](mailto:pave@aavsb.org).

If you bring an item to your examination without obtaining approval in advance, you may not be permitted to test or may be required to relinquish the item.

### **Name, Mailing Address or Email Address Changes**

If your name changes any time after applying to take the exam, please contact the AAVSB as soon as possible in writing via [pave@aavsb.org](mailto:pave@aavsb.org) with the information change. Please include the name as submitted on the online PAVE application, the new name as it appears on the proper ID, the telephone number and date of birth and scanned photo of ID. **Please note: the first and last name on the ID that you present at the testing center must match your application/registration documentation on your emailed Eligibility letter.**

Please note: The AAVSB must have a current and unique email address on file as **all communication regarding the exam process is sent via email, including the Eligibility letter and notifications regarding scores.**

### **Verifying a Time and Place to Take the Exam**

Upon completion of the application and approval of eligibility, an Eligibility letter will be sent by email from PSI. If you don't receive your emailed Eligibility letter, contact PSI Customer Service at 1-800-733-9267.

**Please print and save the Eligibility letter as it provides exam date, time and location in addition to contact information for the AAVSB and PSI, and lists items to bring on the day of the exam. Candidates must present the Eligibility letter to the proctor at the test site on the day of your examination. If you lose your Eligibility letter, contact PSI Customer Service immediately by email at 1-800-733-9267.**

The QSE is offered on a networked computer at a secure test location throughout the U.S. and internationally. Since the QSE is administered on common dates, it is not possible to reschedule an examination.

The *Eligibility or Candidate ID number* is on the first page of the Eligibility letter.

### **Exam Appointment and Location**

Since the QSE is administered on common dates, **it is not possible to reschedule an examination.** If you are not able to test because you fail to follow the procedures set forth for test scheduling and test administration, such as failing to make an exam appointment, missing an exam appointment, arriving too late for exam administration, or failing to bring the required materials to the test site (Eligibility Letter and unexpired, government-issued photo identification with your signature), you are unlikely to be able to test until the next regularly scheduled exam date.

**The ONLY acceptable ID:**

A government issued (passport, driver's license, or national or military ID) in official language where testing center is located.

- Must be current—**expired not accepted!**
- Must include photo
- First and last name must match all exam application paperwork

If you are unable to take the examination at the specified place and time, you must contact the AAVSB immediately to explain the circumstances. The AAVSB will determine if circumstances warrant a deferment to the next test date or a partial refund. Candidates may need to pay a deferment fee to the AAVSB to take the test during the subsequent test administration.

**Request for Deferment**

**Candidates may request a deferment of their scheduled QSE appointment if:**

- a medical issue makes them physically unable to appear as scheduled
- an academic issue makes them ineligible to sit for the QSE
- extenuating circumstances render the candidate unable to test as scheduled

Documentation will be required to substantiate a candidate's request for deferment. Requests will be reviewed by the AAVSB. **Deferments are for the next posted examination date and an additional fee may be incurred by the candidate.**

Candidates are allowed one deferment only. If the candidate is not able to test as rescheduled, they will forfeit their examination fee.

Candidates will be deferred automatically if they do not meet the eligibility requirements for the QSE, i.e. English Proficiency.

To remain active in the PAVE program, candidates must re-register after four years by notifying the AAVSB and paying a \$100 re-registration fee.

**Inclement Weather/Local or National Emergencies**

In the event of inclement weather or a local or national emergency, please contact PSI at the number provided in your Eligibility letter. If the test site is open, candidates are expected to arrive for their appointments or forfeit all fees. If the test site is closed and appointments are canceled, candidates should contact PSI on next steps.

## Day of the Exam

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On the day of the exam, please arrive 30 minutes early to the test site. Be sure to have an acceptable **ID** and the **Eligibility letter**. *Those arriving late may not be admitted to the test location.*

### **The ONLY acceptable ID:**

A government issued (passport, driver's license, or national or military ID) in official language where testing center is located.

- Must be current—**expired not accepted!**
- Must include photo
- First and last name must match all exam application paperwork

Candidates will be required to place all personal items in a locker prior to testing. Candidates must not bring any personal/unauthorized items in the testing room. Such items include but are not limited to: outerwear, hats, food, drinks, tissues, medications, purses, briefcases, notebooks, pagers, watches, cell phones, recording devices, and photographic equipment. Weapons are not allowed at any designated test site. Candidates will be asked to empty and turn their pockets completely inside out prior to every entry into the testing room to confirm you have no prohibited items. *Candidates may take breaks during the examination, but the test timing continues during any breaks taken.* During the examination time period, including breaks, you may not communicate with other candidates, refer to any study materials and/or notes, or assist or obtain assistance from any person. Candidates may not leave the test site while the examination is in progress.

Please remember there may be other people at the test site taking examinations (other than the QSE) so typing on keyboards for an essay examination, coughing, and/or people entering and leaving the testing room may be heard. It is impossible to provide a completely noise-free testing environment.

### **Taking the QSE by Computer**

A brief tutorial will be provided prior to the start of the examination to instruct candidates on how to mark and unmark answers and how to navigate through the examination. The timed portion of the examination will begin *after* the computer tutorial.

Candidates have 220 minutes in which to complete the QSE. A clock that counts down the time remaining on the examination will appear on the screen throughout the entire testing session. When taking the examination, candidates can skip questions, change answers to questions, use the strike-through feature, and mark questions for review. *Short breaks are allowed during the examination; however, the clock will continue to run during all break times.*

Each question on the QSE is a multiple-choice question that lists four choices, only one of which is the correct or best answer. Read the entire question and all four choices before marking an answer. There is no penalty for guessing, so candidates should answer all the questions, if possible.

An online calculator is available for use on any question on the examination. This calculator works the same way as the standard MS Windows calculator, so it is suggested that candidates practice with that.

**Additional features on the computer testing screen:**

- Count-down clock
- Online calculator
- Comment section for each question

It is possible to make a comment on any question(s) on the exam and this is the only time candidates can make a specific comment. Please consider overall exam timing when using the comment function key in writing comments during the exam. Comments are reviewed post examination by PSI and the AAVSB.

## QSE Scores

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### At the Test Site

As you take the QSE, your responses will be recorded and stored by the web server. After completing the exam, responses are transmitted to PSI for scoring.

### Score Report

Approximately 3-4 weeks after taking the exam, the candidates will be sent an email notification from the AAVSB that official scores are available. The official score report will be mailed directly to the candidate. The score report will show your score and a pass/fail designation.

Performance on the QSE is reported in terms of scaled scores, not raw scores. After equating procedures are completed, raw scores are mathematically converted to scaled scores that can range from 200 to 800 with a passing scaled score of 425. Scaled scores are equivalent for all administrations so that the same standard is maintained from administration to administration. *Scaled scores are not “number correct” or “percent correct” scores.*

### Additional Score Review

To ensure the accuracy of results, PSI performs numerous quality assurance procedures before scoring the electronic examination file containing each candidate's answers. It is extremely unlikely that a review of the electronic file will result in a change in an examination score.

Candidates may request a manual rescoring of the electronic examination file within 6 months of the examination date. Requests received after that time will not be honored.

There is a \$50 fee for a manual rescoring. Contact the AAVSB at [pave@aavsb.org](mailto:pave@aavsb.org) for information on how to submit a request.

### **Verification of PAVE Enrollment and Next Steps**

PAVE candidates must pass the Qualifying Science Examination in order to be eligible to take the NAVLE. Upon receiving QSE score results, the AAVSB sends a list of eligible PAVE candidates to the NBVME for supporting documentation for candidates applying to take the NAVLE (North American Veterinary Licensing Examination).

PAVE candidates can send an email to [pave@aavsb.org](mailto:pave@aavsb.org) to request a verification of PAVE enrollment letter be sent directly to the state board for the NAVLE application.

### **QSE Retake Procedures**

If a retake is necessary, candidates will be allowed 5 business days from when results are emailed to apply for the next QSE, regardless of the posted application deadline. The fee to retake is \$1500. QSE candidates retaking the QSE will complete the PAVE online application and select QSE retake with exam fee during the application window.

No examinees shall be allowed to sit for the QSE more than three times during any one calendar year. Examinees who have failed the QSE five times must seek and be granted approval of the AAVSB each time they wish to take the QSE after their fifth failed attempt. All requests will be reviewed by the PAVE Committee with a recommendation sent to the AAVSB Board of Directors. The AAVSB Board of Directors will vote on all recommendations from the PAVE Committee. More detailed information is included in the PAVE Standards and Policies available on the AAVSB website [www.aavsb.org](http://www.aavsb.org).

## Contact Information

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Below is the contact information for the interested parties of the PAVE.

**American Association of Veterinary State Boards (AAVSB)** – contact for questions regarding applying/registering, eligibility, and scores.

AAVSB  
PAVE Program  
380 West 22nd Street, Suite 101  
Kansas City, MO 64108  
Toll Free: 1-877-698-8482  
Fax: 1-816-931-1604  
Email: [pave@aavsb.org](mailto:pave@aavsb.org)  
Website: [www.aavsb.org](http://www.aavsb.org)

**PSI** – contact regarding Eligibility email and problems at a test site

1-800-733-9267

# Appendices

## Appendix 1A

<b>Qualifying Science Examination (QSE) Blueprint</b>		
<b>Domain</b>	<b>Content Area</b>	<b>Domain %</b>
Anatomy	Gross Anatomy, Microscopic Anatomy, Physical Examination	<b>10%</b>
Physiology	Organ Physiology, Genetics, Theriogenology, Physiological Chemistry, Endocrine Physiology	<b>15%</b>
Pharmacology	Pharmacokinetics, Pharmacodynamics, Pharmacologic therapeutics, Toxicology	<b>13%</b>
Diagnostics	Microbiology, Pathology, Diagnostic Imaging, Parasitology	<b>22%</b>
Surgery	Surgery Principles, Anesthesia Principles, Analgesia, Emergency Medicine/Intensive Care	<b>12%</b>
Medicine, Ethics and Communications	Diagnosis and Treatment of Disease, Dentistry, Etiology, Client Communication and Ethics	<b>15%</b>
Preventative medicine and Public Health	Animal Welfare, Behavior, Epidemiology, Regulatory Medicine and Programs, Nutrition	<b>13%</b>
		<b>100%</b>