



COMMONWEALTH OF
VIRGINIA
 SURVEYING (PS / VIRGINIA
 STATE SPECIFIC / LSB / PHOTOGRAMMETRY)
 EXAMINATIONS
 FIRST TIME APPLICANTS AND REPEAT EXAMINEES

EXAMINEE INFORMATION BULLETIN

CHANGES: BEGINNING JANUARY 2014

The FS exams will be given via computer-based testing beginning in 2014. The examination will be given during assigned window times rather than specific April and October dates. FS examination candidates will need to register directly with NCEES.

Examinees will NOT be eligible for the examination without first applying to, and receiving approval from, the VA Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers, and Landscape Architects.

SPRING 2014 Board Application Deadlines:

12/2/2013	Board application deadline for PS
12/2/2013	Virginia State Specific
12/2/2013	Photogrammetry (Spring Only)
12/3/2013	Virginia Surveyor B (Spring Only)

FALL 2014 Board Application Deadlines:

6/16/2014	Board application deadline for PS
6/16/2014	Virginia State Specific

The Virginia Department of Professional and Occupational Regulation (DPOR), Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects (APELSCIDLA Board) is responsible for licensing and regulating the engineering professions. The Board, through DPOR, has contracted with Professional Credential Services (PCS) to provide various testing services. Please read the following information carefully before registering online with PCS for the exam. All inquiries regarding the examination must be directed to the Virginia Engineering Coordinator at PCS - this includes questions regarding the surveying examinations.

First-Time Examinees

You are considered to be a first-time examinee if you are an applicant who has never received approval from the Virginia Board, or if you have lost your exam eligibility and must reapply to the Board.

1. All applicants must be approved by the Board. First-time applicants must contact the Board for application information. If approved, proceed to step 2.
2. All applicants must create an account online with NCEES. This account may be created anytime once NCEES registration begins (see the schedule on the left hand side of this page). After your account is created, proceed to step 3.
3. Register online with NCEES by the registration deadline. This deadline is strictly enforced; NO EXCEPTIONS. Only Board-approved applicants proceed to step 4.
4. Within 5 business days of registering with NCEES, applicants will receive an email from PCS with a link to schedule and pay for the exam. If you do not receive an email in your Inbox, please check your Spam or Junk folder before emailing your PCS coordinator for the link. Exams must be scheduled and paid for by the scheduling deadline.

SPRING 2014 Registration/Scheduling Deadlines:

NCEES registration will be available beginning mid December

2/20/2014	PS Examination (Closed Book)
2/20/2014	Virginia State Specific (Open Book)
2/20/2014	Photogrammetry (Spring Only)
2/20/2014	Virginia Surveyor B (Spring Only)

FALL 2014 Registration/Scheduling Deadlines

NCEES registration will be available beginning mid July

9/4/2014	PS Examination (Closed Book)
9/4/2014	Virginia State Specific

*Scheduling with PCS or registering with NCEES is NOT available after the deadline. NO EXCEPTIONS.

CALCULATORS

Please visit the NCEES website, www.ncees.org, for the most up-to-date information regarding calculators. Only the models on the [NCEES-approved list](#) may be used on the examination. All other models are prohibited in the exam room. The NCEES website also has information regarding examination content.

INTRODUCTION**Re-Exam Examinees**

You are considered to be a re-exam examinee if you are an applicant who has already received approval from the Virginia Board and your exam eligibility has not expired. Remember, you are exam-eligible for three years from the date the Board approved you for the exam.

1. All applicants must create an account online with NCEES. This account may be created anytime once NCEES registration begins (see the schedule on the left-hand side of page 1). After your account is created, proceed to step 2.
2. Register online with NCEES by the registration deadline. This deadline is strictly enforced; NO EXCEPTIONS. Only Board-approved applicants proceed to step 3.
3. Within 5 business days of registering with NCEES, applicants will receive an email from PCS with a link to schedule and pay for the exam. If you do not see the email in your Inbox, please check your Spam or Junk folder before emailing your PCS coordinator for the link. Exams must be scheduled and paid for by the scheduling deadline.

EXAMINATION FEES

PS	\$340
VA State-Specific Land Surveyor	\$165
VA State-Specific Land Surveyor B*	\$315
VA State-Specific Photogrammetry*	\$55

* Offered during the spring administration only.

WITHDRAWAL AND POSTPONEMENT POLICY

Examinees may request either a withdrawal or a one-time postponement before the scheduling deadline. The request must be in writing and forwarded to PCS via email. Requests after the scheduling deadline will only be approved in cases involving extenuating circumstances. Proper documentation may be required such as military orders, doctor notes (for illness), a death certificate (for a death in the family), etc. Extenuating circumstances are NOT job requirements, vacations, lack of study time, weddings, etc.

Please note: It is only after you register and submit payment via internet that you are considered "scheduled" for the examination with PCS. ONLY SCHEDULED EXAMINEES CAN REQUEST A POSTPONEMENT OR A WITHDRAWAL.

Examinees approved for a postponement will be transferred to the next available examination administration; however, their exam eligibility with the VA Board will *not* be extended. Examinees will be responsible for notifying PCS they are registered with NCEES and paying any fee differences, if any.

If a withdrawal is granted, the examinee will receive a refund less the \$50 non-refundable processing fee. Refunds may be issued 45-days after the examination date.

It is the examinee's responsibility to contact PCS prior to the test date if admission materials have not been received. Admission materials will be available in the candidates NCEES records. If you do not appear for testing, and a withdrawal or postponement has not been granted, you will be considered absent and will forfeit your examination fee. Absentee examinees should visit www.pcshq.com for rescheduling instructions.

SPECIAL ACCOMMODATIONS

In accordance with the provisions of the Americans with Disabilities Act (ADA), examination administration modifications are available for examinees who qualify. Also, examinees who are members of religious faiths that cannot take the examination on an assigned date may qualify for special accommodations. Examinees must visit the NCEES website (www.ncees.org) to read complete information as to the application procedures for special accommodations. All requests and supporting documentation must be submitted to NCEES before the

specified deadline. The specific accommodations granted and the reporting time will be on the exam authorization.

NAME OR ADDRESS CHANGES

Name and address changes must be submitted to both the Board office and PCS in writing and sent via email. In order to change your name you must show your old name and new name. Please include copies of any court documents if applicable (marriage or other legal name changes). Also include the name of the examination taken (profession) and examination date.

Name or address changes may be emailed to PCS at vaeng@pcshq.com, or to the Board at apelscidla@dpor.virginia.gov.

**Examinees with name or address changes should submit the change before the NCEES registration deadline. If you fail to report this information prior to the deadline it can result in you missing the scheduled examination.

NOTIFICATION OF EXAMINATION ADMISSION

Approximately two weeks prior to the examination, examinees will receive an email from NCEES prompting them to log into their NCEES account and print their exam authorization. The authorization will include the date, time, and location of the exam.

Examinees determined to be ineligible for the examination will receive a refund less the \$50 non-refundable processing fee. Refunds may be issued 45-days after the examination date.

MECHANICAL PENCILS

Examinees must use the mechanical pencils provided by NCEES at the examination site (no other options).

PS and State EXAMINEES

The PS is a closed-book exam but you will be provided a PS Reference Handbook in addition to your exam booklet. **The Virginia State Specific exam is an open book exam.**

TEST SITE AND REPORTING TIME

The exact test site location, map to the site, parking information and reporting time will be provided in your admission materials. It is also suggested that you visit a website for driving directions from your departure location to the test site.

NCEES

Examinees are encouraged to visit the National Council of Examiners for Engineering and Surveying website (www.ncees.org) for information regarding the examination content, scoring system, and the latest information regarding the calculator prohibited items policies.

ENVIRONMENTAL DISTRACTERS

Although every attempt is made to provide a quiet and comfortable testing environment, noise and room temperatures may be an unforeseen distracter. It is suggested that if you are sensitive to noise or temperature variations, you may want to bring earplugs and types of dress that can help you to adapt to a cooler or warmer climate in the examination room. PCS will work with the testing site staff to anticipate potential problems.

ADMISSION REQUIREMENTS

1. You must present your exam authorization and one form of government-issued identification with a photograph, signature, your date-of-birth and expiration date (i.e. drivers license or passport) in order to be admitted to the examination room.

2. The identification must be current and clearly recognizable or you will not be admitted to the examination. Copies are not acceptable.
Military Examinees: If you have a Military ID without a signature, you must bring another form or ID showing your signature and other items required in item 1 to the examination.
3. It is the responsibility of the examinee to be at the examination on time. Examinees will not be permitted into the examination room after the announcements have begun (NO EXCEPTIONS). It is strongly suggested that you visit the site before the day of the examination so you are familiar with the route and the needed travel time.
4. In the event of inclement weather or a national disaster, please call PCS for updates at (877) 364-3926.

EXAMINEES (State Specific Only)

You may use published books, codes, tables, standards and ordinances, and bound reference materials. Bound reference materials are defined as stitched, glued or fastened by spiral binders, plastic snap binders, brads or screws. Current regulations, available on the Board's website at http://www.dpor.virginia.gov/uploadedFiles/MainSite/Content/Boards/APELS/04REGS_APELS_07_01_11.pdf, will print as a single sheet format and immediately become an "unbound document". Please bind all reference materials as noted above.

Examinees may tab reference books before the examination with Post-it™ type notes and flags, but pads of Post-it™ notes and flags are not permitted in the examination room. Examinees are not permitted to exchange reference materials or aids during the examination. Examinees are not permitted to write and make notes in any of the reference materials.

All items brought to the test site will be the examinee's sole responsibility. PCS, the Board or the facility are not responsible for any lost, misplaced and/or stolen items.

ITEMS PROHIBITED IN EXAMINATION ROOM

Unapproved calculators are not permitted. Only the calculators listed on the NCEES website are permitted. For a complete list of prohibited items and items permitted please visit www.ncees.org and read the "The NCEES Candidate Agreement" form.

If any prohibited item is found in a examinee's possession after the examination begins, or if a examinee is found to be using a writing instrument other than the NCEES-supplied pencil, the item will be confiscated, the examinee will be dismissed from the examination, and his/her examination will not be scored or refunded. All confiscated items will be forwarded to NCEES.

SCORE NOTICES

Examinees may log in to their NCEES account to view their results. Please allow 8 to 10 weeks for NCEES to update individual accounts with exam results. Examinees will receive an email from NCEES when their results are ready for review. Engineer license examinees who pass all of the requisite exams will receive their license in the mail from the Board within 10-12 weeks of passing the exams.

SECURITY GUIDELINES

Copying, reproducing or taking any action to reveal the contents of an examination in whole or in part is unlawful. Removal of an examination booklet, answer sheet or other confidential material supplied to you at the examination is prohibited.

Any irregularity such as an act of impersonation, creating a disturbance, giving or receiving unauthorized information or aid to other examinees, attempting to remove examination information by any means, or possession of unauthorized notes or equipment may be sufficient cause for you to leave the examination room. All such irregularities will generate a report to the Board.

The *Examination Site Conduct Agreement Form* will be supplied to you at the examination. The form provides for your agreement to the security guidelines discussed above and must be completed prior to taking the exam. No visitors, guests or children are permitted in the examination room.

VA STATE EXAMINATIONS

The same policies and procedures, previously listed in this bulletin, also pertain to the examinations listed below.

SCORING AND REPORTING

Exams are scored based only on the number of correct answers provided; no penalty is assessed for an incorrectly answered question. A minimum scaled score of 70 must be obtained in order to achieve a passing score. Results are confidential and will be reported to the Board office. The Board office will notify you of whether you passed or failed the exam only; numerical scores will not be provided.

VA STATE SPECIFIC LAND SURVEYOR (LS) EXAM

Beginning with the October 2002 examination, the Virginia Surveyor license examination will be a one-part, multiple-choice examination.

The content outline is as follows:

1. Regulations
2. Virginia Statutes
3. Geomatics
4. Land Planning, Design and Drainage
5. Construction/Route Location Survey
6. Erosion and Sediment Control
7. Boundary Survey Law
8. Wetlands/Chesapeake Bay/Water Quality
9. Hydrographics

The examination will contain at least 50 questions. The actual number of questions will vary depending on the allocated difficulty and time per question. Questions cover Board regulations and statutes (approximately 50%) and technical knowledge (approximately 50%). Please be aware that regulation and statute questions are contained in each of the content areas noted above. There will be a two-hour time limit.

Examinee comment forms will be available in the event you wish to comment on a particular exam question. Please request a form from the proctor at the completion of your testing session.

SUGGESTED REFERENCES FOR VA STATE SPECIFIC LAND SURVEYOR EXAM

- *Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects Regulations* 18VAC10-20 (et seq.)
- *Library of Virginia Standards for Plats* 17VAC15-60 (et seq.)
- *Code of Virginia* §13.1-542 (et seq.) *Professional Corporations*
- *Code of Virginia* §13.1-1000 (et seq.) *Virginia Limited Liability Company Act*
- *Code of Virginia* §13.1-1100 (et seq.) *Virginia Professional Limited Liability Company Act*

- *Code of Virginia* §15.2-2200 (et seq.) *Planning, Subdivision of Land and Zoning*
- *Code of Virginia* §28.2-1300 (et seq.) *Wetlands*
- *Code of Virginia* §33.1-184 *Evidence as to existence of a public road*
- *Code of Virginia* §54.1-400 (et seq.) *Architects, Engineers, Surveyors, Certified Interior Designers and Landscape Architects* (<http://VAengcode.notlong.com>)
- *Code of Virginia* §55-79.39 (et seq.) *Condominium Act*
- *Code of Virginia* §55-287 (et seq.) *Virginia Coordinate System*
- *VDOT Drainage Manual* (current edition)
- *VDOT Road and Bridge Standards* (current edition)
- *VDOT Survey Manual* (current edition)
- *VDOT Subdivision Street Requirements* (current edition)
- *VDOT Work Area Protection Manual* (current edition)
- *VDOT Road Design Manual* (current edition)
- *VDOT Program Manual* (current edition)
- *DCR Erosion & Sediment Control Handbook* (http://www.dcr.virginia.gov/stormwater_management/e_and_s.shtml)
- *DCR Virginia Stormwater Management Handbook* – DCR Publication
- *DCR and VWRRC Virginia Stormwater Management BMP Clearinghouse* (<http://vwrrc.vt.edu/swc/>)
- *Chesapeake Bay Preservation Area Designation and Management Regulations* 9VAC10-20 (et seq.)
- *US Clean Water Act*, Section 404 (<http://water.epa.gov/lawsregs/guidance/wetlands/sec404.cfm>)
- *US Army Corps of Engineers Hydrographic Survey Manual EM-1110-2-1003*, January 2002. (http://140.194.76.129/publications/eng-manuals/EM_1110-2-1003.pdf)
- *US Army Corps of Engineers Wetland Delineation Manual* Technical Report Y-87-1 (<http://el.erdc.usace.army.mil/wetlands/pdfs/wlman87.pdf>)
- *Virginia Wetlands Management Handbook* (http://www.ccrm.vims.edu/permits_web/guidance/handbook/handbook.pdf)
- *Clark on Surveying and Boundaries* (June 1998), Robillard and Bouman
- *Route Location and Surveying*, Hickerson
- *Surveying*, Francis H. Moffit/Harry Bouchard
- *NOAA Tide Tables*
- *Boundary Control and Legal Principles*, Robillard and Wilson
- *Easements and Revisions*, Donald Wilson
- *National Geodetic Survey* – Geodetic Mark Preservation

* All references to the *Code of Virginia* and the *Virginia Administrative Code* (VAC) only require attention in those areas of the codes that pertain to the practice of surveying. All codes may be accessed through the Virginia Legislative Information System at <http://leg1.state.va.us/>.

LAND SURVEYOR B (LSB) EXAM (Spring only)

The Land Surveyor B examination is an 8-hour multiple-choice examination with a morning and an afternoon session. The exam consists of approximately 50 questions which comprise both sessions. However, the number of actual test questions will vary. An individual must be licensed as a Virginia surveyor in order to take this examination. An overall scaled score of 70 must be achieved in order to pass the examination for licensure.

The same policies and procedures, previously listed in this bulletin, also pertain to this examination. The content outline is as follows:

1. *Erosion Control*
2. *Storm Drainage Systems*
3. *Land Planning and Design*
4. *Sanitary Sewer*
5. *Water Line Extensions*
6. *Federal/State/Local Standards*

SUGGESTED REFERENCES FOR LAND SURVEYOR B EXAM

- *Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects Regulations* 18VAC10-20 (et seq.)
- *VDOT Drainage Manual* (current edition)
- *VDOT Road and Bridge Standards* (current edition)
- *VDOT Survey Manual* (current edition)
- *VDOT Subdivision Street Requirements* (current edition)
- *VDOT Minimum Standards of Entrances* (current edition)
- *DCR Erosion & Sediment Control Handbook* (http://www.dcr.virginia.gov/stormwater_management/e_and_s.shtml)
- *Code of Virginia* §54.1-400 (et seq.) *Architects, Engineers, Surveyors, Certified Interior Designers and Landscape Architects* (<http://VAengcode.notlong.com>)
- *VDH Manual for Waterworks Regulations and the Practice for Waterworks Design*
- *Sewage Collection and Treatment Regulations* 9VAC25-790 (et seq.)
- References (of your choice) on Sanitary Sewer Design and the Practice of Surveying

* All references to the *Code of Virginia* and the *Virginia Administrative Code* (VAC) only require attention in those areas of the codes that pertain to the practice of surveying. All codes may be accessed through the Virginia Legislative Information System at <http://leg1.state.va.us/>.

PHOTOGRAMMETRY EXAM (Spring only)

The Photogrammetry examination is a 6-hour examination containing 100 questions. Examinees must pass the Fundamentals of Surveying Examination prior to attempting this examination. An overall scaled score of 70 must be achieved in order to pass the examination for licensure.

The content outline is as follows:

1. Statutes and Rules
2. Standards
3. Project Planning
4. Geodesy and Map Projections
5. Data Acquisition
6. Data Reduction and Analysis
7. Documentation and Map Presentation
8. Business Principles and Communication
9. Quality Assurance.

SUGGESTED REFERENCES FOR THE PHOTOGRAMMETRY

- *Elements of Photogrammetry with Applications in GIS*, Wolf & Dewitt (3rd edition)
- *Remote Sensing and Image Interpretation*, Lillesand & Kiefer (5th or 6th edition)
- *Digital Elevation Model Technologies and Applications: The DEM Users Manual* (2nd edition), edited by David F. Maune, PhD, CP
- *Glossary of the Mapping Sciences*

- *ASPRS Manual of Photogrammetry*
- *Introduction to Modern Photogrammetry*, Mikhail, Bethel, McGlone

VIRGINIA STATE SPECIFIC PHOTOGRAMMETRY EXAM (Spring only)

The Virginia State-Specific Photogrammetry examination is a 2-hour examination containing 50 multiple-choice questions.

The content outline is as follows:

1. Regulations
2. Statutes
3. Control Field Practices
4. Photogrammetric Mapping
5. Virginia Mapping Standards
6. Flood Plain Mapping
7. Geometrics

SUGGESTED REFERENCES FOR THE VIRGINIA STATE SPECIFIC PHOTOGRAMMETRY EXAMINATION

- *Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects Regulations* 18VAC10-20 (et seq.)
- *Code of Virginia* §28.2 *Fisheries and Habitat of the Tidal Waters*
- *Code of Virginia* §33.1-184 *Evidence as to existence of public road*
- *Code of Virginia* §42.1-92 (et seq.) *State Publications Depository Program*
- *Code of Virginia* §54.1-300 (et seq.) Department of Professional and Occupational Regulation
- *Code of Virginia* §54.1-400 (et seq.) "Architects, Engineers, Surveyors, Certified Interior Designers and Landscape Architects" (<http://VAengcode.notlong.com>)
- *Code of Virginia* §55-287 (et seq.) *Virginia Coordinate System*
- Chesapeake Bay Preservation Area Designation and Management Regulations 9VAC10-20 (et seq.)
- Library of Virginia Standards for Plats 17VAC15-60 (et seq.)
- VDOT VA *Work Area Protection Manual* (2002 edition)
- VDOT *Location and Design Survey Manual* (2002 or current edition)
- *Elements of Photogrammetry* by Paul R. Wolf and Bon A. Dewitt. McGraw Hill (2002). ISBN: 0-07-292454-3.
- *Manual of Photogrammetry*, (5th edition), ASPRS (American Society for Photogrammetry and Remote Sensing). Editor: J Chris McGlone, 2004. ISBN: 1-57083-071-1
- *Introduction to Modern Photogrammetry* by Edward M. Mikhail, James. S. Bethel, J. Chris McGlone. John Wiley & Sons, Inc.
- *Digital Elevation Model Technologies and Applications: The DEM Users Manual*. (2nd edition). Edited by David F. Maune, A Maune, ASPERS, 5410 Grosvenor Lane, Suite 201, Bethesda, MD 20814. ISBN: 1-57083-082-7. ISBN: 04-471-30924-9
- *Digital Elevation Model Technologies and Applications*. David Maune.
- *A First Text on Geographic Information Systems*. Bolstad, P., (2002).
- *Model Virginia Map Accuracy Standards Guideline* (http://www.vita.virginia.gov/uploadedfiles/VITA_Main_Public/unmanaged/library/psgs/Guideline_Map%20Accuracy%20Guideline_701_00.pdf)

- National Geodetic Survey NAD83(NSRS2007) National Readjustment (<http://www.ngs.noaa.gov/NationalReadjustment/>)
- *Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques* by the Federal Geodetic Control Committee, (5/11/88, revised 8/1/89). (http://www.ngs.noaa.gov/FGCS/tech_pub/GeomGeod.pdf)

* All references to the *Code of Virginia* and the *Virginia Administrative Code* (VAC) only require attention in those areas of the codes that pertain to the practice of surveying. All codes may be accessed through the Virginia Legislative Information System at <http://leg1.state.va.us/>.