NCEES EXAMINEE GUIDE

NCEES exams are administered in either a computer-based format (CBT) or a pencil-and-paper format. Click on the appropriate section below for your exam.

Fundamentals of Engineering (FE) Fundamentals of Surveying (FS)
Principles and Practice of Surveying (PS)
Principles and Practice of Engineering (PE)
Agricultural and Biological Engineering
Architectural Engineering
Chemical
Electrical and Computer: Computer Engineering
Electrical and Computer: Electronics, Controls, and Communications
Electrical and Computer: Power
Environmental
Fire Protection
Industrial and Systems
Mechanical (all modules)
Mining and Mineral Processing
Naval Architecture and Marine Engineering
Nuclear
Petroleum

PENCIL-AND-PAPE	EXAMS	20
-----------------	-------	----

Click here for information about the OCTOBER 2021 pencil-and-paper exam administration.

Principles and Practice of Engineering (PE) Civil (all modules) Control Systems Metallurgical and Materials 16-hr Structural Engineering

APPENDIX	5
----------	---

COMPUTER-BASED EXAMS

CONTACT INFORMATION

NCEES computer-based exams are administered exclusively at approved Pearson VUE test centers.

CONTACT PEARSON VUE REGARDING:

- Comments about the test center
- Directions to a specific test center
- Inclement weather or power failure on your scheduled exam date
- Rescheduling an exam appointment

Visit: pearsonvue.com/ncees

- Call: 888-866-8766
- Email: Go to pearsonvue.com/contact/ americas/customerservice, and complete the Contact Us form.

Office

hours: Monday–Friday 7 a.m.–9 p.m. Central time Closed on local holidays

CONTACT NCEES REGARDING:

- Acceptable forms of ID
- Admittance requirements
- · Contact information for licensing boards
- Evaluation of foreign education
- Exam accommodations
- Exam development
- Exam registration
- Exam scoring
- General information on the licensure process for becoming a professional engineer (P.E.) or professional surveyor (P.S.)

Visit:	ncees.org
Chat:	Click "Chat now" on any page within
	the ncees.org website.
Call:	800-250-3196
Message:	Go to your MyNCEES account.
Write:	200 Verdae Blvd.
	Greenville, SC 29607
Office	
hours:	Monday–Friday
	8 a.m.–5 p.m. Eastern time
	Closed on local holidays

CONTACT YOUR LICENSING BOARD REGARDING:

- Application for engineer intern (E.I.) or surveyor intern (S.I.) certification
- Qualifications for licensure (these vary by jurisdiction)

All NCEES exams are confidential, secure, and protected by the laws of the United States and elsewhere. They are to be used only for valid assessment and licensing purposes.

COMPUTER EXAMS

REGISTERING FOR A COMPUTER-BASED EXAM

Eligibility

Eligibility to sit for an NCEES exam varies and is determined by each licensing board. It is your responsibility to review your licensing board's requirements at ncees.org/boards before registering for an exam.

MyNCEES Account

You must have a MyNCEES account to register for an exam. To create one, go online to account. ncees.org and follow the instructions. The information provided during this process will be used to create your appointment confirmation letter. The first and last names you use to register must be in English and match the government-issued ID that you will provide for admission to the test center. Individuals may have only one MyNCEES account.

How to Register

Log in to your MyNCEES account, select the REGISTER button, and follow the onscreen instructions. During registration,

you will be

REGISTRATION PROCESS

- 1. Review your licensing board's approval and registration process.
- 2. Create a MyNCEES account.
- 3. Register and pay for the exam.
- 4. Receive authorization notification from NCEES to schedule an exam.
- 5. Schedule the exam.
- 6. Receive the appointment confirmation letter from Pearson VUE.

required to agree to conduct transactions with NCEES by electronic means, including but not limited to the exam registration process. You will also be required to attest that you have read the rules and policies in the NCEES Examinee Guide and agree to comply with them.



3





"The NCEES practice exams are an excellent diagnostic tool for examinees to see what technical topics they might need to spend more practice time reviewing. I highly recommend them."

Robert Koch, Ph.D., P.E. Federal Chief Research Scientist Adjunct Professor of Engineering





National Council of Examiners for Engineering and Surveying® 200 Verdae Blvd., Greenville, S.C. 29607 800.250.3196

Study with NCEES. ncees.org/PracticeExams North American and U.S. territory examinees may sit for the exam at any NCEES-approved test center located in North America, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, or the U.S. Virgin Islands. However, if you are approved to register for the exam through an international entity other than Canada, you must take your exam at an NCEESapproved test center in that country. Learn more about NCEES exam administration outside of the United States.

Exam Fees

Exam fees are payable directly to NCEES during the registration process. NCEES accepts payments online via MasterCard, VISA, and American Express. Fees for each attempt are as follows:

Fundamentals of Engineering (FE)	\$175
Fundamentals of Surveying (FS)	\$175
Principles and Practice of Surveying (PS)	\$300
Principles and Practice of	
Engineering (PE)	\$375

Some licensing boards require examinees to file a separate application and pay an application fee as part of their approval process in order to be qualified for seating for an NCEES exam.

Examinees approved to take an exam through a foreign entity will be assessed a nonrefundable \$25 international scheduling fee at the time of registration.

Scheduling Your Exam Appointment

Once your completed registration is approved, you will receive an email notification that you have been authorized to take the exam and are eligible to schedule your exam appointment. To schedule your exam, log in to MyNCEES, select the SCHEDULE button, and follow the onscreen instructions. You must select PROCEED TO CHECKOUT and SUBMIT ORDER to complete the scheduling process. After your exam has been scheduled, you will receive an email from Pearson VUE that includes your NCEES appointment confirmation letter. Test centers have limited capacity and seats are reserved on a first-come, first-served basis. Schedule your exam as far in advance as possible for the best scheduling availability. You must schedule an appointment time at least one business day before taking the exam.

One-Day Testing Events

Some exams are offered only one day in October. This is the only time these exams will be available. Other NCEES computer-based exams are offered year-round.

Year-Round Testing Opportunities

Except as noted above, NCEES computerbased exams are offered in testing windows throughout the year during the following months:

- January-March
- April–June
- July–September
- October–December

Approval Policy

NCEES policy states examinees may attempt a particular NCEES exam one time per testing window and no more than three times in a 12-month approval period, which begins with the examinee's first attempt. Some licensing boards have a more restrictive policy. Visit ncees.org/boards to review the policy of the licensing board you selected during the registration process.

Once you are approved, your authorization will expire after 12 months. You will forfeit your registration fee if you fail to schedule your exam during this 12-month period.

Appointment Confirmation Letter

You will receive an appointment confirmation letter from Pearson VUE via email once you have successfully registered for and scheduled your exam. The letter will confirm your identity, the location of your Pearson VUE test center, the time of your appointment, and the exam you are scheduled to take. Verify that the first and last names printed on the appointment confirmation letter match your first and last names as they appear on your governmentissued ID. Contact NCEES before exam day if the names do not match. Bring your letter to the test center to avoid delays during the checkin process.

You can confirm the scheduled appointment and view the appointment details by clicking the exam's "Manage Appointments" button in your MyNCEES account.

Rescheduling/Cancellations/Refunds

You may cancel or reschedule your CBT appointment through your MyNCEES account. You may be entitled to a refund, depending on the date that you cancel or reschedule the exam. Applicable refunds will be processed automatically and applied to the same credit card used when registering for the computerbased exam within 7–10 business days.

All reschedule fees are payable directly to Pearson VUE and are subject to applicable Pearson VUE fees. **You must reschedule a computer-based exam at least 24 hours in advance of your scheduled appointment.**

Examinees who reschedule 24 to 48 hours in advance of their scheduled appointment will

pay a higher fee than those who reschedule more than 48 hours in advance of their scheduled appointment.

To reschedule your exam, log in to MyNCEES, select the RESCHEDULE button, and follow the onscreen instructions. You must select PROCEED TO CHECKOUT and CONFIRM RESCHEDULE to complete the rescheduling process. After your exam has been rescheduled, you will receive an email from Pearson VUE that includes your NCEES Appointment Reschedule confirmation.

You may **cancel** your computer-based exam as long as you do so more than 48 hours in advance of your scheduled appointment. Cancellations that are received more than 48 hours in advance of a scheduled appointment will be eligible for a refund of the NCEES registration fee less a \$50 administrative fee. Cancellations are not allowed within 48 hours of a scheduled appointment.

To cancel your exam, log in to MyNCEES, select the CANCEL button, and follow the onscreen instructions. You must select CONFIRM CANCELLATION to cancel your exam. After your exam has been cancelled, you will receive an email from Pearson VUE that includes your NCEES Cancellation Confirmation.

If a test center is open during inclement weather, neither NCEES nor Pearson VUE will make exceptions to refund and fee policies for examinees who cancel, reschedule, or fail to attend their scheduled appointment because of weather conditions.

If, on the day you are scheduled to test, you are unable to attend the exam for any of the following reasons, you may be allowed to reschedule without paying a rescheduling fee or may be allowed to cancel with a full refund:

COMPUTER EXAMS

- Illness, either yourself or immediate family member
- Death in the immediate family
- Disabling traffic accident
- Court appearance or jury duty
- Military duty

To avoid any monetary penalty in such situations, you will be required to provide reasonable documentation to NCEES within 14 days of your originally scheduled appointment confirming why you were unable to test as scheduled.

If you have an issue regarding a payment or refund, contact NCEES directly. Fees associated with chargebacks, returned checks, or any form of disputed payment are the responsibility of the issuer.

Changing Your Exam Discipline or Licensing Board

If you decide to change your exam discipline or select a different licensing board after registering, you will need to cancel your existing exam and re-register for the new exam. You will be eligible for a refund of the NCEES registration fee less a \$50 administrative fee.

Exam Accommodations

Accommodations are available for examinees who meet certain eligibility criteria and sufficiently document their request. Examinees who have a documented disability covered under the ADA or a scheduling conflict due to a religious Sabbath or a military appointment may request accommodations. You must indicate your need for accommodations during the registration process. After registration is completed, you will receive an email with instructions on how to complete and submit your request for accommodations.

Email questions related to the accommodations process to NCEES at accommodations@ncees.org.

ADA accommodations—NCEES is committed to ensuring that candidates with disabilities can take the NCEES exams in an accessible place and manner. This will often require reasonable testing accommodations.

To receive ADA accommodations, a candidate must have a physical or mental impairment that substantially limits his or her ability to perform one or more major life activities (such as walking, seeing, hearing, learning, reading, concentrating, or thinking) or a major bodily function (such as neurological, endocrine, or digestive system) that impacts taking an examination, as compared with most people in the general population. NCEES encourages candidates with disabilities to request accommodations.

For more information on how to request ADA accommodations, visit https://ncees.org/exams/ reasonable-accommodations/.

Military accommodations—If you or your spouse is currently serving as an active-duty member of the U.S. Armed Forces outside of North America, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, or the U.S. Virgin Islands, you can request to take an exam at an NCEES-approved test center located outside of these areas.

Test Center Rules and Regulations

You will be required to review and agree to comply with the NCEES CBT Exam Rules and Agreement during the check-in process at the test center. In addition, the CBT Nondisclosure Agreement will appear onscreen prior to beginning your exam. In order to take the exam, you must agree to comply with the agreement within 2 minutes. If you do not accept the terms within 2 minutes or if you click "No," the exam will end and you will forfeit your appointment and exam fees.

COMPUTER EXAMS

THE DAY OF YOUR COMPUTER-BASED EXAM

Arrive at the Pearson VUE test center 30 minutes before your scheduled appointment.

What to Bring

You must present one of the following physical photo IDs upon arrival at the test center. Digital IDs will not be accepted.

- ID issued by a government entity in the country in which you are testing
- International travel passport in roman characters from your country of citizenship
- U.S. military ID

DAY OF THE EXAM

- Appointment confirmation letter
- □ NCEES-approved calculator
- □ Acceptable form of identification
- □ Approved comfort items

IDs must be current and include an expiration date, your name and date of birth, a recognizable photo, and your signature. Valid U.S. military IDs that do not include a signature will be accepted. Student IDs will not be accepted.

The first and last name on your appointment confirmation letter and your ID must match. To help speed up the process while checking in, bring a printed copy of your appointment confirmation letter.

You are allowed to bring one NCEES-approved calculator into the testing room. You may store spare calculators and covers with your personal belongings. To review the list of approved calculators, visit ncees.org/exams/calculator.

Only the following items are allowed into the testing room:

- The ID used during the admission process
- Calculator (without the cover) that complies with the current NCEES Calculator Policy
- Key to your test center locker
- Reusable booklet and marker supplied by Pearson VUE
- Eyeglasses (without the case)
- Light sweater or jacket
- Items included in the Pearson VUE Comfort Aid List

Items not permitted in the testing room include but are not limited to cell phones, handheld computers/personal digital assistants (PDAs) or other electronic devices, fitness trackers, pagers, watches, wallets, purses, hats and other head coverings (unless they qualify as religious apparel), bags, coats, books, notes, pens, pencils, erasers, food, and beverages.

COMPUTER EXAMS

You must store all belongings not permitted in the testing room in designated areas outside the testing room. Most test centers have small lockers. You must turn off all electronic devices before storing them in a locker. The test center is not responsible for lost, stolen, or misplaced personal items.

Approved Comfort Items

The test center will provide items included on the Pearson VUE Comfort Aid List, such as earplugs, noise-canceling headphones, and tissues. These items do not require preapproval. Other comfort aids—such as braces (e.g., neck, back, ankle), hearing aids, eye drops, and mobility devices—will be allowed in the testing room upon visual inspection by test center staff. Test center staff will conduct the visual inspection by examining the item but will not physically touch you or the item. Any items that do not appear on the Pearson VUE Comfort Aid List must be requested as a testing accommodation during the exam registration process and approved prior to scheduling your exam.

Reference Materials

The current version of the appropriate NCEES reference handbook will be supplied onscreen as a searchable PDF. All NCEES examinees will use a 24-inch monitor while testing to allow sufficient space to display both the exam question and the reference handbook. You can access the current version of the handbook from the dashboard of your MyNCEES account.

If codes, standards, or other references are being supplied, they will be listed on the last page of the exam specifications.

Testing Environment

All NCEES-approved Pearson VUE test centers provide a consistent testing environment for all examinees. To ensure a high level of security throughout the testing experience, you will be monitored at all times. Both audio and video may be recorded.

You are prohibited from eating, drinking, chewing gum, smoking, and making noise that creates a disturbance for other examinees during the exam.

Other individuals taking non-NCEES exams are likely to be testing at the same time as you, and neither NCEES nor Pearson VUE has control over keyboarding noises that may be associated with such exams if they include essay questions. A test proctor can provide you with noise-canceling headphones or earplugs if you encounter such a situation.

CHECK-IN PROCESS

Upon arrival at the test center, you will be provided a copy of the NCEES CBT Exam Rules and Agreement to review. You must indicate your agreement to comply with these rules by providing a digital signature before testing begins.

A Pearson VUE representative will confirm that the only items in your possession are ones allowed into the testing area. These items include your ID, an NCEES-approved calculator (without the cover), the key to your test center locker (if applicable), eyeglasses (without the case), a light sweater or jacket, and any approved comfort items.

Once you have placed any unapproved items in a test center locker (if available), the representative will take a digital photo of you and you will be directed to provide a palm vein scan. The palm vein scan will collect your palm vein image to digitally verify your identity and to protect the security and integrity of the exam. Your signature, palm vein scan, and photo will be securely transmitted and stored with your exam results.

After completing the check-in process, you will be escorted into the testing area, where a proctor will confirm your identity and ask you to provide another palm vein scan. You will be required to provide a palm vein scan each time you enter and exit the testing room.

After verifying your identity and the exam you will be taking, the proctor will answer any questions you might have, provide you with a reusable booklet and marker for scratch work, escort you to your workstation, and launch the exam. Upon entering the testing room, you may not communicate with other examinees.

COMPUTER EXAMS

THE EXAM APPOINTMENT

Prior to beginning an exam, you will be given 2 minutes to review and agree to comply with the CBT Nondisclosure Agreement.

After agreeing to comply with the CBT Nondisclosure Agreement, you will be provided an 8-minute tutorial to review how to advance through the exam questions, flag items for review, access the reference handbook, and do other exam-related tasks.

Additional reusable booklets are available at any time during the exam by raising your hand and notifying the proctor. The proctor will take and review your booklet before issuing a new one.

Notify the test administrator immediately if you experience any problems with the computer or software or encounter any other issue. The test administrator is not allowed to answer questions related to exam content.

Exam Format

The exam is divided into two sections. You'll be given the entire exam time at the beginning of the test. There are no individually timed sections, so manage your time accordingly.

COMPUTER	
EXAMS	

Exam	Testing Date	Appointment time	Nondisclosure Agreement	Tutorial	Exam time	Scheduled break	Number of questions
FE/FS	Year-Round	5 hr 55 min	2 min	8 min	5 hr 20 min	25 min	110
PS	Year-Round	7 hr	2 min	8 min	6 hr	50 min	100
PE Agricultural and Biological Engineering	October 20, 2021	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Architectural Engineering	October 2022	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Chemical	Year-Round	9 hr	2 min	8 min	8 hr	50 min	80
PE Electrical and Computer: Computer Engineering	October 20, 2021	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Electrical and Computer: Electronics, Controls, and Communications	October 20, 2021	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Electrical and Computer: Power	Year-Round	9 hr	2 min	8 min	8 hr	50 min	80
PE Environmental	Year-Round	9 hr	2 min	8 min	8 hr	50 min	80
PE Fire Protection	October 20, 2021	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Industrial and Systems	October 20, 2021	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Mechanical (all modules)	Year-Round	9 hr	2 min	8 min	8 hr	50 min	80
PE Mining and Mineral Processing	October 20, 2021	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Naval Architecture and Marine Engineering	October 2022	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85
PE Nuclear	2022 30 min October 20, 9 hr 2021 30 min		2 min	8 min	8 hr 30 min	50 min	85
PE Petroleum	October 20, 2021	9 hr 30 min	2 min	8 min	8 hr 30 min	50 min	85

After you see approximately half of the questions, you will be prompted to review and then submit them. You will no longer have access to those questions after you submit them. You will then have the option of taking a scheduled break (see next section). Manage your time accordingly to ensure that you have plenty of time to complete the remaining questions.

Breaks

You may take a **scheduled** break after completing, reviewing, and submitting approximately half of the questions.

You may take less than the designated amount for your scheduled break. However, any remaining break time will not extend the amount of time allocated for answering the remaining exam questions.

You may exit the building during the scheduled break. It is important to return on time from the scheduled break and to allow time for the exam proctor to readmit you into the exam room. Once the break has expired, the exam clock automatically begins again.

You may also take **unscheduled** breaks at any time during the exam by raising your hand to notify a proctor. However, the amount of time you take for unscheduled breaks will be deducted from your testing time. You are not allowed to exit the building during unscheduled breaks.

While you are taking an **unscheduled** break, you are permitted to access only these personal items that you stored during the exam: beverages, food, and items on the Pearson VUE Comfort Aid List. You may also access medication required at a specific time, with the prior permission of the test administrator. You are not permitted to access any other personal items during an unscheduled break.

Exit Procedures

Raise your hand to notify the proctor when you have completed the exam. The proctor will confirm that the exam has ended properly, gather your reusable booklet and marker, and escort you to the receptionist area. All exam results will be encrypted and transmitted to Pearson VUE and NCEES, along with your digital signature, photo, and palm vein scan.

You will be given a verification-of-testing letter before leaving the test center. This letter will include your name, digital photo, and candidate ID, current date and time, and name of the exam. It serves as your confirmation of testing.

Exam Irregularities

Fraud, deceit, dishonesty, unprofessional behavior, and other irregular behavior in connection with taking any NCEES exam are strictly prohibited. Irregular behavior includes but is not limited to the following: failing to work independently; impersonating another individual or permitting such impersonation (surrogate testing); possessing prohibited items; communicating with other examinees or any outside parties by way of cell phone, personal computer, the Internet, or any other means during an exam; disrupting other examinees; creating safety concerns; and possessing, reproducing, or disclosing nonpublic exam questions, answers, or other information regarding the content of the exam before, during, or after the exam administration. Evidence of an exam irregularity may be based on your performance on the exam, a report from an administrator or a third party, or other information.

The test administrator is authorized to take appropriate action to investigate, stop, or correct any observed or suspected irregular behavior, including discharging you from the test center

COMPUTER EXAMS

and confiscating prohibited devices or materials. You must cooperate fully in any investigation of a suspected irregularity. NCEES reserves the right to pursue all available remedies for exam irregularities, including canceling scores and pursuing administrative, civil, and/or criminal remedies.

If you are involved in an exam irregularity, the following may occur: invalidation of results, notification to your licensing board, forfeiture of exam fees, and restrictions on future testing. Some violations may incur additional consequences, to be pursued at the discretion of NCEES.

Appeals

If your exam results are invalidated and you believe NCEES should review that decision, you may appeal to NCEES within 30 days from the date of the decision. You must send your appeal in writing through your MyNCEES account or by mail or fax to the NCEES Manager of Compliance and Security.

In most cases, results are invalidated for one of two reasons. First, there is a good-faith reason to question the validity of the results. Second, you have engaged in activities prohibited by the *NCEES Examinee Guide*, the NCEES CBT Exam Rules, or the CBT Nondisclosure Agreement. If you decide to appeal, your appeal must provide information that resolves, to the reasonable satisfaction of NCEES, the concerns that led to the invalidation of your exam results. Your appeal should also indicate the specific relief requested. You will be notified of the NCEES action within 60 days after receipt of the appeal.

If you wish to contest a decision to invalidate your exam results, you may also choose to pursue arbitration in accordance with the procedure described in the NCEES Agreement to Arbitrate. Arbitration may be pursued only after appealing a decision to cancel exam results. Arbitration is

COMPUTER EXAMS

11



The NCEES Engineering Education Award recognizes engineering programs that foster collaboration between students and professional engineers. NCEES invites EAC/ABET-accredited programs from all engineering disciplines to submit entries that integrate professional practice and education to compete for

Grand prize: \$25,000 5 awards: \$7,500 each



advancing licensure for engineers and surveyors National Council of Examiners for Engineering and Surveying® 200 Verdae Blvd., Greenville, S.C. 29607 800.250.3196

Discover more. ncees.org/award the final and exclusive remedy for challenging a decision by NCEES to cancel or invalidate exam results.

Examinee Comments

Provide any comments or concerns regarding the test center to a Pearson VUE representative before leaving the test center. Provide any comments regarding the exam to NCEES within 48 hours via your MyNCEES account.

Report suspicious activity or an exam irregularity by going online to ncees.org/exams/security.

EXAM RESULTS

Exam results for computer-based exams are typically available 7–10 days after you take the exam. You will receive an email notification from NCEES with instructions to view your results in your MyNCEES account. Results will include information specific to your licensing board regarding how you should proceed based on your performance.

All results are reported as pass or fail. If you fail the exam, you will receive a diagnostic report showing your performance for each of the major topics covered on the exam. The diagnostic report is provided to help identify the knowledge areas where improvement is needed before retaking the exam. The purpose of this report is to provide general information on performance; it is not designed or intended to be used for any other purpose. A sample diagnostic report is shown at the end of this chapter.

Retaking the Exam

NCEES policy allows examinees to attempt a particular NCEES examination one time per testing window and no more than three times in a 12-month period. Some licensing boards have a more restrictive policy. Visit ncees.org/boards to determine the policy of the licensing board you selected during the registration process.

Scoring

Your exam results are based on the total number of correct answers that you selected. There are no deductions for wrong answers. The score is then converted to a scaled score, which adjusts for any minor differences in difficulty across the different exam forms. This scaled score represents an examinee's ability level and is compared to the minimum ability level for that exam, which has been determined by subject-matter experts through psychometric statistical methods. NCEES does not publish the passing score because it varies slightly based on difficulty. NCEES scores each exam with no predetermined percentage of examinees that should pass or fail. All exams are scored the same way. First-time takers and repeat takers are graded to the same standard.

When an Error Occurs

NCEES and Pearson VUE endeavor at all times to ensure that registrations are properly processed and exams are properly prepared, handled, and scored. In the unlikely event that an error occurs, NCEES will, if possible, correct it.

If NCEES determines corrective action is warranted, you will be permitted either to retest at no additional fee or to receive a full refund of your testing fees.

The remedies described above are the exclusive remedies available to an examinee for errors in registration, exam information, scoring (including reporting of exam results), or testing disruptions not caused by the examinee.

COMPUTER EXAMS

Disruptions in Testing and Potential Compromises

The following situations may prompt NCEES to consider invalidating or canceling your exam or exam results even though you may have had no responsibility for the event in question:

- Unanticipated cancellation or interruption of testing or deviation from required testing procedures, due to a weather event or other external cause
- Possible advance access to exam content by one or more examinees
- Other disruptions or compromises to the normal testing process

If NCEES concludes that corrective action is warranted in one of these situations, you may be offered the option to either retest at no additional fee or receive a full refund of your registration fee provided that you did not cause and were not involved in the conduct that resulted in corrective action. These remedies are your exclusive remedies for such disruptions in testing and potential compromises. If you choose to retest, you must retake the entire exam to produce valid exam results.

If you are found to have caused or been involved in the conduct that resulted in corrective action, NCEES may treat the matter as an exam irregularity and may pursue all available remedies as described elsewhere in this guide.

EXAM CONTENT

Current exam specifications are located at ncees. org/exams.

Most questions on exams are in traditional multiple-choice format. However, exams also use common alternative item types such as

- Multiple correct options—allows multiple choices to be correct
- Point and click—requires examinees to click on part of a graphic to answer
- Drag and drop—requires examinees to click on and drag items to match, sort, rank, or label
- Fill in the blank—provides a space for examinees to enter a response to the question

All questions, including alternative item types, are scored as either correct or incorrect. No partial credit is given.

A video describing alternative item types and an interactive computer-based testing demo are posted on ncees.org/ExamPrep.

All exams include a limited number of pretest items that will not be scored and will not have an impact on your results. This is common practice within high-stakes testing and allows NCEES to evaluate the pretest items for potential use in future exams. These items are randomly placed within the exam and are not identifiable as pretest items.

COMPUTER EXAMS

NCEES CBT EXAM RULES AND AGREEMENT

Compliance with All Testing Rules: In order to be seated for an exam, all examinees must read and agree to comply with all requirements found in the *NCEES Examinee Guide*, which is available on the NCEES website. Examinees may request a copy of the guide from the test administrator. Those requirements include but are not limited to those listed here.

Items Permitted in Testing Room: Only the following items are allowed into the testing room:

- The ID used during the admission process
- A calculator that complies with the current NCEES Calculator Policy
- Key to your test center locker
- Reusable booklet and marker supplied by Pearson VUE
- Eyeglasses (without the case)
- Light sweater or jacket
- Items included in the Pearson VUE Comfort Aid List (copy available from the test administrator upon request)

Items Prohibited in Testing Room: Items not permitted in the testing room include but are not limited to: cell phones, hand-held computers/personal digital assistants (PDAs), fitness trackers or other electronic devices, pagers, watches, wallets, purses, hats (and other head coverings, with the exception of those worn for religious purposes), bags, coats, books, notes, pens, pencils, erasers, food, and beverages.

All belongings not permitted in the testing room must be stored in designated areas outside the testing room. Most test centers have small lockers. The test center is not responsible for lost, stolen, or misplaced personal items.

Reusable Booklets: Pearson VUE reusable booklets cannot be used until after the exam has started, may not be removed from the testing room at any time during the exam, and must be returned to the test administrator immediately after the exam.

Breaks: After completing approximately half of the questions and clicking "End Review," examinees may request an optional scheduled break. Examinees must return from their scheduled break on time. Time allocated for the second portion of the exam will be reduced by an amount equal to the time an examinee is late in returning.

Unscheduled breaks may be taken at any time during the exam. The exam timer will not stop for unscheduled breaks. Examinees may not leave the building during an unscheduled break.

COMPUTER EXAMS

NCEES CBT EXAM RULES AND AGREEMENT (CONTINUED)

To leave their seat, examinees must raise their hand and wait for an administrator to assist them. Only the following items may be accessed during an unscheduled break:

- Beverages
- Food
- Items included in the Pearson VUE Comfort Aid List
- · Medication required at a specific time with prior approval of the test administrator

NO other items may be accessed.

Monitoring: To ensure a high level of security throughout the exam experience, examinees will be monitored at all times. Both audio and video may be recorded.

Computer Problems During Testing: Problems with the computer or software must be reported immediately to the test administrator.

Privacy Statement: Exam results, palm vein pattern templates, and digital photographs and signatures will be encrypted and transmitted to Pearson VUE and NCEES. The test center does not keep any information other than when and where your exam was taken. This encrypted information may be used for exam verification purposes and to detect potentially fraudulent or unauthorized activities.

Candidate Statement: By providing a digital signature, I give Pearson VUE my explicit consent to retain and transmit my personal data and test responses to Pearson VUE and NCEES (either of which may be outside the country in which I am testing). I have read and understand the NCEES CBT Exam Rules and agree to follow them. I understand and agree that if I do not follow the NCEES CBT Exam Rules, or if I am suspected of cheating, tampering with the computer, or engaging in any other improper activity, this will be reported to Pearson VUE and NCEES, my exam may be invalidated, I will not be refunded my exam fee, and NCEES may take other action that it deems appropriate, such as pursuing administrative, civil, or criminal remedies.

COMPUTER EXAMS

CBT NONDISCLOSURE AGREEMENT

This exam is confidential and secure, owned and copyrighted by NCEES and protected by the laws of the United States and elsewhere. It is made available to you, the examinee, solely for valid assessment and licensing purposes. In order to take this exam, you must agree not to disclose, publish, reproduce, or transmit this exam, in whole or in part, in any form or by any means, oral or written, electronic or mechanical, for any purpose, without the prior express written permission of NCEES. This includes agreeing not to post or disclose any test questions or answers from this exam, in whole or in part, on any websites, online forums, or chat rooms, or in any other electronic transmissions, at any time.

Please click on the response below to indicate whether you accept the terms of this agreement. Click "Y" to symbolize your signature and to accept these terms. You must click "Y" and then "Exit" to continue with the exam.

If you do NOT accept these terms, click "N" and let the test center staff know that you are finished with the exam. Clicking "N" will end the exam, and you will forfeit your exam fee.

- Y. Yes, I accept the terms of this agreement and agree not to disclose any part of this exam at any time.
- N. No, I do NOT accept the terms of this agreement.



COMPUTER-BASED EXAMS



Sample Diagnostic Report for Computer-Based Exams

Diagnostic Report

The purpose of the diagnostic report on the next page is to provide feedback about your exam performance and to help focus your preparations for retaking the exam. The report cannot be used to determine the passing score.

The **Your Performance column** indicates your result by knowledge area converted to a scaled score of 0–15. The scaled score conversion is necessary to ensure that diagnostic reports are consistent across all computerbased exams. This also allows comparison of results by an examinee on multiple attempts. *The number of questions you answered correctly cannot be determined from this scaled score*.

The **last column** represents your performance in a knowledge area compared to the average performance of passing examinees. For each knowledge area, the portion of the bar between your performance (solid line) and the average performance of the passing examinees (dashed line) indicates the relative difference between your performance and the performance of the passing examinees.

Performance in a **knowledge area significantly below** that of the passing examinees contributed to your failing results. Substantial study of this material is recommended before retaking the exam.

Performance in a **knowledge area near or just above** that of the passing examinees indicates your understanding may be improved by further study, thus improving your chances of passing the exam.

Each exam includes a limited number of **pretest items** that will not be scored and will not have an impact on your results. This is common practice within high-stakes testing and allows NCEES to evaluate the pretest items for potential use in future exams. These items are randomly placed within the exam and are not identifiable as pretest items.



COMPUTER-BASED EXAMS



Sample Diagnostic Report for Computer-Based Exams

NCEES provides a diagnostic report to all examinees who do not pass to help them identify the knowledge areas in which they need to improve before retaking the exam. The purpose of this report is to provide general information on the performance of the examinee; it is not designed to be used for any other purpose.

The report shows the knowledge area, along with the number of items in each knowledge area and the examinee's performance in terms of a scaled score from 0–15. The report also provides information showing the examinee's relative performance in each knowledge area compared to the average performance of the passing examinees. The performance comparison chart is not shown to scale and simply indicates the relative performance to assist the examinee in preparing to retake the exam.

Please see the sample diagnostic report for the FE Electrical and Computer exam on the following pages. In reviewing the report, here is how the examinee should interpret the results. Colors shown are for illustrative purposes only. Actual reports are grayscale.



Ethics and Professional Practice, Properties of Electrical Materials, and Electromagnetics: My performance in these areas ranged from 5.3–7.1, significantly lower than the average score of passing examinees. These are areas where I need to focus before retaking the exam.

Mathematics, Probability and Statistics, Power, and Computer Networks: My performance in these areas ranged from 7.4–8.2, consistently lower than the average score of passing examinees. There is definite room for improvement in these areas.

Engineering Economics, Circuit Analysis, Linear Systems, Signal Processing, Electronics, Control Systems, Communications, Digital Systems, Computer Systems, and Software Development: My performance in these areas ranged from 8.1–15 and was very close to the average performance of passing examinees—a little lower in some areas and higher in others. I should review these areas before retaking the exam to try to improve, but there are other areas that need more of my focus.

My study priorities before retaking the exam need to be as follows:

- 1. Ethics and Professional Practice, Properties of Electrical Materials, and Electromagnetics—strong focus
- 2. Mathematics, Probability and Statistics, Power, and Computer Networks—very strong focus. Even though my performance was closer to the passing examinees than the green topics, there are 26 questions in these areas versus 18 in the blue topics, therefore giving me more opportunity to improve.
- 3. Engineering Economics, Circuit Analysis, Linear Systems, Signal Processing, Electronics, Control Systems, Communications, Digital Systems, Computer Systems, and Software Development—general review

For more information on the knowledge areas included in each of the FE and FS exams, download exam specifications at ncees.org/exams.

COMPUTER EXAMS

FE Electrical and Computer

Sample Diagnostic Report Examinee Name - ID Number Exam Date MM/DD/YYYY

FE Elec	FE Electrical and Computer			Performance of Passing Examinees
	Knowledge Area	Number of Items	Your Performance (on a scale of 0 - 15)	Average of Passing Examinees = Your Performance =
1	Mathematics	11	7.8	
2	Probability and Statistics	4	8.2	
æ	Ethics and Professional Practice	4	τ.τ	
4	Engineering Economics	5	7 '6	
2	Properties of Electrical Materials	4	τ.τ	
9	Circuit Analysis (DC and AC Steady State)	11	8.3	
7	Linear Systems	5	T. 8	
8	Signal Processing	5	8.7	
6	Electronics	7	8.9	
10	Power Systems	8	7.4	
11	Electromagnetics	4	5.3	
12	Control Systems	6	I. 6	
13	Communications	5	8'8	
14	Computer Networks	4	7.8	
15	Digital Systems	8	0'11	
16	Computer Systems	5	8.7	
17	Software Development	4	15.0	

COMPUTER-BASED EXAMS

Your Performance Compared to the Average

COMPUTER EXAMS

Click here for information about the OCTOBER 2021 pencil-and-paper exam administration.

CONTACT INFORMATION

CONTACT NCEES REGARDING:

- Acceptable forms of ID
- Admittance requirements
- Contact information for licensing boards
- Evaluation of foreign education
- Exam accommodations
- Exam development
- Exam registration
- Exam scoring

Visit:

• General information on the licensure process for becoming a professional engineer (P.E.) or professional surveyor (P.S.)

CONTACT YOUR LICENSING BOARD **REGARDING:**

- Applications for licensure
- Qualifications for licensure (these vary by jurisdiction)
- Renewal and continuing education requirements
- State-specific exams

PAPER **EXAMS**

20

- ncees.org Chat: Click "Chat now" on any page within the ncees.org website. Call: 800-250-3196 Message: Go to your MyNCEES account. 200 Verdae Blvd. Write: Greenville, SC 29607 Office hours: Monday–Friday
 - 8 a.m.–5 p.m. Eastern time Closed on local holidays

All NCEES exams are confidential, secure, and protected by the laws of the United States and elsewhere. They are to be used only for valid assessment and licensing purposes. You can review the exam administration schedule for pencil-and-paper exams at ncees.org/exams by clicking on PE exam.

REGISTERING FOR A PENCIL-AND-PAPER EXAM

Eligibility

Eligibility to sit for an NCEES exam varies and is determined by each licensing board. It is your responsibility to review your licensing board's requirement at ncees.org/boards before registering for an exam.

MyNCEES Account

You must have a MyNCEES account to register for an exam. To create one, go online to account. ncees.org and follow the instructions. The information provided during the registration process will be used to create your exam authorization, which will be used for admission

REGISTRATION PROCESS

- Review your licensing board's approval and registration process.
- 2. Create a MyNCEES account.
- Log in to your account, click REGISTER, and follow the instructions.
- 4. Receive a confirmation email.
- 5. Receive an exam authorization about two weeks before the exam.

to the exam site. The first and last names you use to register must be in English and match the government-issued ID that you will provide for admission to the exam site. Individuals may have only one MyNCEES account.

How to Register

To register with NCEES for your exam, log in to your MyNCEES account, select the REGISTER button, and follow the onscreen instructions.

During registration, you will be required to agree to conduct transactions with NCEES by electronic means, including but not limited to the exam registration process, and to attest that you have read the rules and policies in the *NCEES Examinee Guide* and agree to comply with them.

Once NCEES registration closes, you will not be permitted to make any changes to your exam or exam location.

Exam Fees

Most licensing boards require PE and SE examinees to file an application and pay an application fee. In addition to application fees, most PE and SE examinees will be required to pay actual test fees directly to NCEES during the registration process. NCEES accepts payments online via MasterCard, VISA, and American Express. Review the policies and procedures of your licensing board to determine specific fees, policies, and procedures.

Exam Confirmation

You will receive a confirmation email from NCEES once you have successfully completed the registration process.

Exam Authorization

You will receive an exam authorization approximately two weeks before the exam. It will confirm your identity, the location of your exam site, the exam administration date, and arrival instructions. PAPER EXAMS To avoid delays at the exam site, verify that the first and last names printed on the exam authorization match your first and last names as they appear on the government-issued ID that you will use during the exam check-in process. Contact NCEES for assistance before exam day if the names do not match.

You can confirm your registration status and reprint your exam authorization through your MyNCEES account.

Cancellations and Refunds

Licensing boards are responsible for administering pencil-and-paper exams in their jurisdiction. Most use a third-party provider, and each has its own policies and procedures for cancellations and refunds. Visit ncees.org/ boards to determine the policies and procedures for your licensing board. If you have an issue regarding a payment or refund, contact NCEES directly. Fees associated with chargebacks, returned checks, or any form of disputed payment are the responsibility of the issuer.

Exam Accommodations

Accommodations are available for examinees who meet certain eligibility criteria and sufficiently document their request. Examinees who have a documented disability covered under the ADA or a scheduling conflict due to a religious Sabbath or a military appointment may request accommodations. You must indicate your need for accommodations during registration by the published deadlines. After registration is completed, you will receive an email with instructions on how to complete and submit your requested accommodations.

PAPER EXAMS



PRACTICE EXAMS

"The NCEES practice exams are a great opportunity for the examinees to view the varied types of questions, and how they are written on the exams."

Jennifer Williams, P.E. Bridge and Transportation Engineer FE Exam Development Volunteer since 2011





National Council of Examiners for Engineering and Surveying[®] 200 Verdae Blvd., Greenville, S.C. 29607 800.250.3196

Study with NCEES. ncees.org/PracticeExams Email questions related to the accommodations process to NCEES at accommodations@ncees.org.

ADA accommodations—NCEES is committed to ensuring that candidates with disabilities can take the NCEES exams in an accessible place and manner. This will often require reasonable testing accommodations.

To receive ADA accommodations, a candidate must have a physical or mental impairment that substantially limits his or her ability to perform one or more major life activities (such as walking, seeing, hearing, learning, reading, concentrating, or thinking) or a major bodily function (such as neurological, endocrine, or digestive system) that impacts taking an examination, as compared with most people in the general population. NCEES encourages candidates with disabilities to request accommodations.

For more information on how to request ADA accommodations, visit https://ncees.org/exams/ reasonable-accommodations/.

Military accommodations—If you or your spouse is currently serving as an active-duty member of the U.S. Armed Forces, you can request to take an exam at a location outside of the jurisdiction in which you are applying for licensure, including limited NCEES-approved foreign exam sites.

Religious accommodations—Examinees taking a pencil-and-paper exam may request to take the exam on an alternate date due to Sabbath observance. You will be required to submit supporting documentation from a religious official such as a priest, rabbi, or cleric.

Test-Site Rules and Regulations

You must agree to abide by the NCEES Candidate Agreement at all times. The agreement is located at the end of this chapter.

THE DAY OF YOUR EXAM

Refer to your exam authorization for instructions specific to your exam site.

What to Bring

You must present one of the following physical photo IDs upon arrival at the exam site. Digital IDs will not be accepted.

- ID issued by a government entity in the country in which you are testing
- International travel passport in roman characters from your country of citizenship
- U.S. military ID

IDs must be current and include an expiration date, your name and date of birth, a recognizable photo, and your signature. Valid U.S. military IDs that do not include a signature will be accepted. Student IDs will not be accepted. The first and last name on the examinee's ID and exam authorization must match.

To avoid delays while checking in, bring a printed copy of your exam authorization.

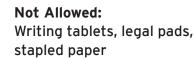
You are allowed to bring NCEES-approved calculators into the exam room. To review the list of approved calculators, visit ncees.org/exams/calculator.

Reference Materials

Reference materials must be bound and remain bound during the exam. Bound refers to (1) materials permanently bound, as by stitching or

REFERENCE MATERIALS

Materials Must Be Bound: Stitched, glued, ring binders, brads, plastic snap binders, spiral-bound notebooks, screw posts



PAPER EXAMS glue, and (2) materials securely fastened in their covers by fasteners that penetrate all papers. Loose material inside binder pockets does not qualify as bound. Loose paper may be bound with ring binders, brads, plastic snap binders, spiral-bound notebooks, and screw posts, but not with staples. Writing tablets and legal pads are not allowed. You may tab reference books before the exam with sticky notes and flags, but pads of sticky notes and flags are not permitted in the exam room. Refer to the NCEES Candidate Agreement to review the policy on references.

Testing Environment

NCEES strives to provide a consistent testing environment for all examinees.

Exam Format

The exam is divided into two 4-hour sessions, a morning session and an afternoon session.

The PE exams contain 40 multiple-choice questions during the morning session and 40 multiple-choice questions during the afternoon session. The SE exams contain 40 multiplechoice questions during the morning session and 3 or 4 constructed-response (essay) questions during the afternoon session.

After the morning section, you will receive a timed lunch break (see next section).

CHECK-IN PROCESS

Upon arrival at the exam site, you will be required to present your exam authorization and acceptable identification to a proctor prior to being admitted into the exam room.

Exam proctors will assist you in locating your assigned seat. Cell phones, smartwatches, fitness trackers, and other electronic devices are not allowed in the exam room at any time. If you have these devices in your possession after PAPER EXAMS

24



RECORDS

"An NCEES Record makes it fast, easy, and convenient to apply for additional P.E. licenses in other states."

Alexander Zuendt, P.E. Zuendt Engineering Record holder since 2011





National Council of Examiners for Engineering and Surveying® 200 Verdae Blvd., Greenville, S.C. 29607 800.250.3196

Build your NCEES Record today. ncees.org/records the exam begins, you will be dismissed from the exam room, your exam will be invalidated, and you will forfeit your exam registration fee.

Items permitted in the exam room are

- ID used during the admission process
- Exam Authorization (one copy)
- Calculator that complies with the NCEES
 Calculator Policy
- Wristwatches and small clocks
- Approved reference materials
- Eyeglasses (no case)
- Earplugs
- Two straightedges, such as a ruler, scale, triangle, or protractor
- Handheld, non-electronic magnifying glass (no case)
- Head coverings worn as religious apparel
- Snacks (such as hard candies, candy bars, gum) and nonalcoholic drinks

Items not permitted in the exam room include but are not limited to

- Cell phones, smartwatches, fitness trackers, and other prohibited electronic devices
- Loose paper, legal pads, and unbound or improperly bound notes
- Hats with brims, hoods (on hooded sweatshirts, for example)
- Unapproved calculator
- Slide charts, wheel charts, or drafting compasses
- Non-NCEES writing instruments or erasers
- Weapons of any kind
- Tobacco products
- Personal chairs

Review the NCEES Candidate Agreement for complete information about items allowed or prohibited in the exam room.

ON EXAM DAY

After everyone is seated, a proctor will begin reading the exam instructions. Once the proctor

begins reading the instructions, examinees will no longer be admitted into the exam room. You will receive an NCEES pencil with an eraser to use during the exam. Using a non-NCEES writing instrument or eraser to complete any portion of the exam may lead to dismissal from the exam and/or invalidation of your exam results.

Breaks

The amount of time you receive for your lunch break will depend on circumstances at your exam site. The report time for the afternoon session will be announced at your exam site.

You may exit the building during the lunch break. It is important to return on time as late arrivals will not be admitted to the afternoon session.

You may take restroom breaks at any time during the exam by raising your hand and waiting for a proctor to assist you. However, the amount of time you take for restroom breaks will be deducted from your testing time. You are not allowed to exit the exam area during restroom breaks.

Exit Procedures

Raise your hand to notify the proctor when you have completed the exam. The proctor will collect the exam book and answer sheet before dismissing you. Once dismissed, you will not be permitted to re-enter the exam room. If you complete the exam within 15 minutes of exam time expiring, you must remain at your seat until the exam ends and all examinees are dismissed from the exam room.

Examinee Survey

NCEES will email you an online post-exam survey 7–10 days after the exam. This is your opportunity to provide feedback on the exam

PAPER EXAMS

process and the exam site conditions. If you have feedback specific to an exam question, provide it immediately after the exam through your MyNCEES account.

Exam Irregularities

Fraud, deceit, dishonesty, unprofessional behavior, and other irregular behavior in connection with taking any NCEES exam is strictly prohibited. Irregular behavior includes but is not limited to copying or allowing the copying of exam answers; failing to work independently; possessing prohibited items; communicating with other examinees or outside parties by telephones, personal computers, the Internet, or any other means during the course of an exam; surrogate testing or other dishonest conduct; disrupting other examinees; creating any safety concerns; beginning the exam before instructed to do so; failing to cease work on the exam when time is called; and possessing, reproducing, or disclosing nonpublic exam questions, answers, or other information regarding the content of the exam without authorization, before, during, or after the exam administration. NCEES will conduct an analysis of each exam administration to identify incidents of copying or collusion.

The chief proctor is authorized to take appropriate action to investigate, stop, or correct any observed or suspected irregular behavior, including discharging examinees from the exam site for prohibited activities and confiscating any prohibited devices or materials. Examinees must cooperate fully in any investigation of a suspected irregularity. NCEES reserves the right to pursue all available remedies for exam irregularities, including canceling results and pursuing administrative, civil, and/or criminal remedies. Examinees or other persons implicated in an irregularity will be identified to the licensing board, which may invoke additional sanctions. Examinees implicated in an irregularity will not receive exam results and will not be eligible for a refund of exam fees.

Appeals

If your exam results are invalidated and you believe NCEES should review that decision, you may appeal to NCEES within 30 days from the date of the decision. You must send your appeal in writing through your MyNCEES account or by mail or fax to the NCEES Manager of Compliance and Security.

In most cases, results are invalidated for one of two reasons: First, there is a good-faith reason to question the validity of the results. Second, you have engaged in activities that are prohibited by the *NCEES Examinee Guide* or the *NCEES Candidate Agreement*. If you decide to appeal, your appeal must provide information that resolves, to the reasonable satisfaction of *NCEES*, the concerns that led to the invalidation of your exam results. Your appeal should also indicate the specific relief requested. You will be notified of the NCEES action within 60 days after receipt of the appeal.

If you wish to contest a decision to invalidate your exam results, you may also choose to pursue arbitration in accordance with the procedure described in the NCEES Agreement to Arbitrate. Arbitration may be pursued only after appealing a decision to cancel exam results. Arbitration is the final and exclusive remedy for challenging a decision by NCEES to cancel or invalidate exam results.

Examinee Comments

Provide any comments regarding a particular exam question to NCEES within 10 business days via your MyNCEES account. Report suspicious activity or an exam irregularity by going online to ncees.org/exams/security.

PAPER EXAMS

EXAM RESULTS

You will be notified when your results are available in accordance with the policies and procedures of the licensing board you selected during the registration process. The method of notification and length of time it takes to receive your results vary by licensing board. Most examinees will receive their notification via email from NCEES within 8–10 weeks with instructions to view your results through your MyNCEES account. Visit ncees.org/boards to review the policies and procedures associated with the licensing board you selected during the registration process.

Exam results are reported as pass or fail. If you fail the exam, you will receive a diagnostic report showing your performance for each of the major topics covered on the exam. The diagnostic report is provided to help identify the knowledge areas where improvement is needed before retaking the exam. The purpose of this report is to provide general information on performance; it is not designed or intended to be used for any other purpose. A sample diagnostic report is shown at the end of this chapter.

Retaking the Exam

The number of times you are allowed to take an exam varies by licensing board. Visit ncees.org/boards to determine the policy of the licensing board you selected during the registration process.

Scoring

After each pencil-and-paper exam administration, every exam undergoes extensive statistical analysis to determine the minimum level of performance required for entry into the profession. This rigorous process helps ensure an equitable licensure system for examinees while upholding the standards of the profession. The steps are as follows:

- All answer sheets are scanned as they are received from the exam sites. Scanners are calibrated before and during scoring.
- A psychometric analysis is performed on a sample of answer sheets from each multiplechoice exam to identify any questions with unusual statistics. These questions are flagged for review.
- At least two subject-matter experts, who are licensed engineers or surveyors, review the flagged items. In addition, the subjectmatter experts consider examinee comments about specific exam questions. If the reviews confirm an error in a question, credit may be given for more than one answer.
- 4. When the analyses and reviews are completed, NCEES changes the answer keys as necessary. The passing score and final correct answers for each exam are then used to score all answer sheets. A percentage of the answer sheets are manually verified, and the results are compared to the machine score to ensure accuracy.
- 5. NCEES releases the results to the licensing boards and testing agencies, who in turn report the results to examinees.

When an Error Occurs

NCEES endeavors at all times to ensure that registrations are properly processed and that exams are properly prepared, handled, and scored. In the unlikely event that an error occurs, NCEES will, if possible, correct it.

In cases where an error occurs and any part of the testing service is not delivered or completed, NCEES may permit you either to retest at no additional fee or to receive a partial or full refund of your testing fees. PAPER EXAMS The remedies described above are the exclusive remedies available to an examinee for errors in registrations, exam information, scoring (including reporting of exam results), or testing disruptions not caused by the examinee.

Disruptions in Testing and Potential Compromises

The following situations may prompt NCEES to consider invalidating or canceling your exam or exam results even though you may have had no responsibility for the event in question:

- Unanticipated cancellation or interruption of testing or deviation from required testing procedures, due to a weather event or other external cause
- · Possible advance access to exam content by one or more examinees
- Other disruptions or compromises to the normal testing process

If NCEES concludes that corrective action is warranted in one of these situations, you may be offered the option either to retest at no additional fee or to receive a full or partial refund of your registration fee, provided that you did not cause and were not involved in the conduct that resulted in corrective action. These remedies are your exclusive remedies for such disruptions in testing and potential compromises. If you choose to retest, you must retake the entire exam to produce valid exam results.

If you are found to have caused or been involved in the conduct that resulted in corrective action, NCEES may treat the matter as an exam irregularity and may pursue all available remedies as described elsewhere in this guide.

EXAM CONTENT

NCEES conducts a content review for each exam every six to eight years. This process includes developing and administering a content survey and analyzing the survey results. Each step contains checks and balances to ensure that the resulting exams are fair to the examinees and to provide the licensing boards with an adequate measure of each candidate's competency.

Current exam specifications are available at ncees.org/exams.

PAPER EXAMS

NCEES CANDIDATE AGREEMENT FOR PENCIL-AND-PAPER EXAMS

Updates on the October administration are posted on https://ncees.org/october-2021-exam-administration-updates/.

Licensure candidates qualified to take any NCEES pencil-and-paper exam must review this agreement and the *NCEES Examinee Guide* before sitting for the exam. **Examinees are required to sign their exam answer sheet before the exam starts to affirm that they have been provided this information, have read and understand the material, and agree to abide by the stated policies and procedures, which apply to all NCEES exams.** Full compliance is required.

Approved Calculators

Only models of calculators listed below are permitted in the exam room.

- Hewlett Packard—HP 33s and HP 35s models, but no others.
- Casio—All fx-115 and fx-991 models. Any Casio calculator must contain fx-115 or fx-991 in its model name.
- Texas Instruments—All **TI-30X** and **TI-36X** models. Any Texas Instruments calculator must contain either **TI-30X** or **TI-36X** in its model name.

Admission Requirements

For exam admission, examinees must present their Exam Authorization and one of the following kinds of physical identification: (1) ID issued by a government entity in the country in which you are testing; (2) international travel passport in roman characters from your country of citizenship; or (3) U.S. military ID. All IDs must be current and include an expiration date, your name and date of birth, a recognizable photo, and your signature. Valid U.S. military IDs that do not include a signature will be accepted. Student and expired IDs will not be accepted. Digital IDs will not be accepted. The first and last name on the examinee's ID and Exam Authorization must match.

For the morning session, examinees must report to the exam site by the time shown on the Exam Authorization. For the afternoon session, examinees must report to the exam room by the time announced at the exam site. Examinees who do not report at these times may not be admitted. No one will be admitted after the exam instructions begin.

Grounds for Dismissal from the Exam and/or Invalidation of Exam Results

- Having a cell phone in your possession
- Having loose papers, legal pads, writing tablets, or unbound notes in your possession
- Having a device with copying, recording, or communication capabilities in your possession. These
 include but are not limited to cameras, pagers, PDAs, radios, headsets, tape players, calculator
 watches, smartwatches, electronic dictionaries, electronic translators, transmitting devices, fitness
 trackers, and digital media players such as iPods.
- Having a calculator that is not on the NCEES-approved list
- Using a non-NCEES writing instrument or eraser to complete any portion of the exam
- Copying from another examinee's answer sheet or colluding with other examinees

PAPER EXAMS

CANDIDATE AGREEMENT FOR PENCIL-AND-PAPER EXAMS (CONTINUED)

- Writing on anything other than your exam booklet or answer sheet
- Removing pages from your exam booklet
- Leaving the exam area without authorization
- Violating any other terms stated in this agreement that are cause for dismissal or exam invalidation
- Beginning the exam before the proctor instructs you to do so
- Failing to stop writing immediately when time is called

If any prohibited item is found in an examinee's possession after the exam begins, the item will be confiscated and sent to NCEES. No refund will be provided to examinees dismissed from the exam.

Exam to Be Scored

On exam day, examinees will receive only the exam listed on their Exam Authorization and will not be allowed to sit for a different exam. NCEES will score only the exam listed on the Exam Authorization.

Reference Materials

Pencil-and-paper exams are open-book. Examinees must bring their own reference materials. All reference materials must be bound and remain bound during the exam. Bound refers to (1) materials permanently bound, as by stitching or glue, and (2) materials securely fastened in their covers by fasteners that penetrate all papers. Loose material inside binder pockets does not qualify as bound. Ring binders, spiral binders, plastic snap binders, brads, and screw posts are acceptable fasteners. Staples are not acceptable fasteners. Writing tablets and legal pads are not allowed. Examinees may tab reference books before the exam with Post-it type notes and flags, but pads of Post-it notes and flags are not permitted in the exam room.

Personal Items

Personal items are the sole responsibility of the examinee. Neither NCEES, the licensing board, exam proctors, or the site facility is responsible for any lost, misplaced, or stolen items.

- Examinees may bring snacks (e.g., hard candies, candy bars, gum) and nonalcoholic drinks, as long as having them does not disturb other examinees.
- Examinees may wear wristwatches or place them on the floor. Clocks must be placed on the floor.
- Examinees may not wear hoods (on hooded sweatshirts, for example) or hats with brims during the exam. Head coverings that qualify as religious apparel are permitted.
- Examinees may not bring slide charts or wheel charts (handheld cardboard or plastic calculating devices with rotating or sliding pieces) or drafting compasses.
- Examinees may not place crates, boxes, bookends, or bookstands on the desktop.
- Examinees may not bring weapons of any kind.
- Examinees may not bring personal chairs.
- Examinees may not bring tobacco products or electronic or vaping devices.

PAPER EXAMS

CANDIDATE AGREEMENT FOR PENCIL-AND-PAPER EXAMS (CONTINUED)

Items Permitted on the Desktop

Examinees may have these items on the desktop during the exam:

- Exam Authorization and ID
- Exam booklet, solution pamphlets, and answer sheet
- Approved reference material
- NCEES-approved calculators
- NCEES-issued pencils with erasers
- Small snacks
- Eyeglasses (no case)
- Hand-held, nonelectronic magnifying glass (no case)
- Two straightedges such as a ruler, protractor, scale, or triangle

Exam Irregularities

Fraud, deceit, dishonesty, unprofessional behavior, and other irregular behavior in connection with taking any NCEES exam is strictly prohibited. Irregular behavior includes but is not limited to copying or allowing the copying of exam answers; failing to work independently; possessing prohibited items; communicating with other examinees or outside parties by telephones, personal computers, the Internet, or any other means during the course of an exam; surrogate testing or other dishonest conduct; disrupting other examinees; creating any safety concerns; beginning the exam before instructed to do so; failing to cease work on the exam when time is called; and possessing, reproducing, or disclosing nonpublic exam questions, answers, or other information regarding the content of the exam without authorization, before, during, or after the exam administration. NCEES will conduct an analysis of each exam administration to identify incidents of copying or collusion.

The chief proctor is authorized to take appropriate action to investigate, stop, or correct any observed or suspected irregular behavior, including discharging examinees from the exam site for prohibited activities and confiscating any prohibited devices or materials. Examinees must cooperate fully in any investigation of a suspected irregularity. NCEES reserves the right to pursue all available remedies for exam irregularities, including canceling results and pursuing administrative, civil, and/or criminal remedies. Examinees or other persons implicated in an irregularity will be identified to the licensing board, which may invoke additional sanctions. Examinees implicated in an irregularity will not receive exam results and will not be eligible for a refund of exam fees.

NCEES Response to Testing Errors, Disruptions in Testing, and Potential Compromises

In the unlikely event that a mistake occurs in printing, handling, or processing test materials or in scoring or reporting scores, the test administrator, after consultation with NCEES, will correct the error, if possible, or permit the affected examinees either to retest at no additional fee or to receive a refund of the exam fee. These are the sole and exclusive remedies available to examinees for errors in handling or processing registration materials; in printing, handling, or processing exams, answer sheets, and solution pamphlets; in determining or reporting results; and/or in investigating or responding to suspected irregularities.

PAPER EXAMS

CANDIDATE AGREEMENT FOR PENCIL-AND-PAPER EXAMS (CONTINUED)

NCEES, licensing boards, and testing agents also take steps that are intended to ensure standardized administration on test day. If events occur that cause testing to be canceled or interrupted, involve a mistiming on any part of the test, result in a deviation from required testing procedures, raise concerns about possible advance access to exam content by one or more examinees, or otherwise disrupt or compromise the normal testing process, NCEES will determine whether corrective action is warranted, which could include canceling results or not scoring answer documents. If NCEES determines that corrective action is necessary, affected examinees may have the option to retest at no additional fee (normally on a future national test date) or to receive a refund of the exam fee, unless the affected examinees caused or were involved in the conduct that resulted in the need for corrective action, in which case the licensing board that authorized seating for the exam will have the right to withhold either or both of these options. If a licensing board offers a retest and an examinee selects that option, the examinee may be required to retake the entire exam in order to produce a valid result. These are the sole and exclusive remedies available to any examinee who is affected by disruptions in testing or a potential exam compromise.

Exam Accommodations

NCEES must receive accommodation requests by the registration deadline. All accommodations must be approved by NCEES for each exam administration. Information about accommodations and the process for requesting accommodations are posted on the NCEES website.

Intellectual Property Rights and Exam Security

All NCEES exams are copyrighted works. Examinees are strictly prohibited from copying or disclosing any exam questions, problems, or answers, orally or in writing. This prohibition includes not discussing or disclosing any exam questions or problems on Internet blogs or chat rooms or through any other means.

Additional Information

Current exam specifications, preparation materials, scoring methods, and other exam information are available at **ncees.org** or by calling NCEES at 800-250-3196.

PAPER EXAMS



Sample Diagnostic Report for Pencil-and-Paper Exams (except SE constructed response exams)

NCEES provides a diagnostic report to all examinees who do not pass to help them identify the knowledge areas in which they need to improve before retaking the exam. The purpose of this report is to provide general information on the performance of the examinee; it is not designed to be used for any other purpose.

The report shows the number of items in each knowledge area as well as the examinee's performance in terms of number of correct items and percentage correct. The report also shows the examinee's relative performance in each knowledge area when compared to the average of the passing examinees for that discipline. The performance comparison chart is not shown to scale and simply indicates the relative performance to assist the examinee in preparing to retake the exam.

Please see the sample diagnostic report for the PE Civil Geotechnical exam on the next page. In reviewing the report, here is how the examinee should interpret the results. Colors shown are for illustrative purposes only. Actual reports are grayscale.



Hydraulics and Hydrology, Soil Mechanics Laboratory Testing and Analysis, Groundwater and Seepage, Shallow Foundations, and Deep Foundations: My performance in these areas ranged from 20–40% correct, much lower than the average score of passing examinees. There is definite room for improvement in these areas.

Soil Mechanics, Materials, and Site Characterization: My performance in these areas ranged from 40–50% correct, somewhat lower than the average score of passing examinees. These are areas where I should focus before retaking the exam.



Project Planning, Means and Methods, Structural Mechanics, Geometrics, Site Development, and Earthquake Engineering and Dynamic Loads: I averaged 50–75% correct, very close to the average performance of passing examinees. I should review these areas before retaking the exam to try to improve, but there are other areas that need more of my focus.



Field Materials Testing, Methods, and Safety; Earth Structures; Problematic Soil and Rock Conditions; and Earth Retaining Structures: My performance in these areas ranged from 67–100% correct, higher than the average score of passing examinees in these topics. I should still review this area before retaking the exam, but there are other areas that need more of my focus.

My study priorities before retaking the exam need to be:

- 1. Hydraulics and Hydrology, Soil Mechanics Laboratory Testing and Analysis, Groundwater and Seepage, Shallow Foundations, Deep Foundations, Soil Mechanics, Materials, and Site Characterization—very strong focus. There are 46 questions in these areas, and I scored 50% or lower in all of them. These areas give me the most opportunity to improve.
- 2. The blue and orange topics—general review to ensure I do not give any points back in these topics.

For more information on the knowledge areas included in each of the PE exams, download exam specifications at ncees.org/exams.

PAPER EXAMS



Sample Diagnostic Report April 2017

Your Performance Compared to

-

PE Civil Geotechnical

Average of Passing Examinee	Average of Passing Examinee =: You =																		
	Your Performance (% Correct)	75	67	50	50	29	67	50	60	40	20	100	50	75	33	67	80	20	40
	Your Performance (No. Correct)	ю	2	e	Э	2	2	3	Э	2	1	m	1	£	1	2	4	1	2
	Number of Items	4	ю	9	6	7	3	9	2	5	5	ĸ	2	4	£	с	ى ك	5	Ŋ
	Knowledge Area	Project Planning	Means and Methods	Soil Mechanics	Structural Mechanics	Hydraulics and Hydrology	Geometrics	Materials	Site Development	Site Characterization	Soil Mechanics Laboratory Testing and Analysis	Field Materials Testing; Methods; and Safety	Earthquake Engineering and Dynamic Loads	Earth Structures	Groundwater and Seepage	Problematic Soil and Rock Conditions	Earth Retaining Structures (ASD or LRFD)	Shallow Foundations (ASD or LRFD)	Deep Foundations (ASD or LRFD)
		1	2	з	4	5	9	7	8	6	10	11	12	13	14	15	16	17	18

The purpose of this diagnostic report is to provide feedback about your exam results and to help focus your preparation for retaking the exam. It is neither intended nor designed to be used in determining the passing score. •

The last column represents your performance in a knowledge area compared to the average performance of all passing examinees. For each knowledge area, the portion of the bar between your performance (solid line) and the average performance of the passing examinees (dashed line) indicates the relative difference between your performance and the performance area the passing examinees (dashed line) indicates the relative difference between your performance and the performance area the passing examinees (dashed line) indicates the relative difference between your performance and the performance area the passed. .

Performance in a knowledge area significantly below that of the average passing candidate contributed to your failing the exam. Substantial study of this material is recommended before retaking the exam. Performance in a knowledge area near or above that of the average passing candidate indicates your understanding may be improved by further study, thus improving your chances of passing the exam.

PENCIL-AND-PAPER EXAMS

PAPER

EXAMS

NCEES AGREEMENT TO ARBITRATE (ALL EXAMS)

- 1. In the event that any legal dispute arises between you and NCEES in connection with your participation in any NCEES examination where that dispute is not resolved by the appeals process, you agree that the exclusive means for resolving the dispute shall be binding arbitration as described by the terms of this agreement. This means that you waive the rights you may have to resolve the dispute in a court of law or by any other means that might otherwise be available to you.
- 2. NCEES agrees to be similarly bound except that NCEES reserves its full rights to pursue injunctive and other appropriate relief in any court of competent jurisdiction in cases of unfair competition or violations of, or threats to violate, any intellectual property rights of NCEES. With respect to any action filed by NCEES pursuant to this paragraph 2, you consent to submit to the jurisdiction of the state or federal court in which NCEES seeks relief.
- 3. Arbitration proceedings initiated pursuant to this agreement to arbitrate shall be conducted in accordance with the then current rules of the American Arbitration Association. The arbitration and any proceedings relating to it shall be held in Charlotte, North Carolina. The arbitrator's award shall be binding and may be entered as a judgment in any court of competent jurisdiction. Information about the American Arbitration Association, its rules, and its forms are available from the American Arbitration Association, 335 Madison Avenue, Floor 10, New York, New York, 10017-4605.
- 4. In the event of arbitration, the parties shall bear their own costs and attorneys' fees associated with the arbitration proceedings, unless the arbitrator directs one of the parties to pay the other's costs, or attorneys' fees, or both.
- 5. To the fullest extent permitted by law, no arbitration brought pursuant to this agreement shall be joined to any arbitration involving any other party whether through class-arbitration proceedings or otherwise.
- 6. This agreement is part of the registration process to take any NCEES examination. Your assent to be bound by it is a requirement for taking the examination, but you may sit for the examination only if you also fulfill all other conditions imposed by NCEES.



Go back to page 1.