

# Fundamentals of Engineering FE EXAM

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يسر اللجنة العلمية  
دعوتكم للمشاركة في محاضرة

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للتسجيل وتفاصيل المحاضرة

[www.jeaeast.org](http://www.jeaeast.org)

الفريق الإعلامي للجنة ارتباط المهندسين الأردنيين في المنطقة الشرقية







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# Fundamentals of Engineering “FE” Exam:

What's it all about?  
Why take it?

How to prep for it? and pass it?

When and Where?

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## Saudi Council of Engineers

### Registration for NCEES PE Examination

SCE is pleased to announce that registration for NCEES PE Exam October 2019 has been scheduled. SCE members can apply through their SCE profile if they satisfy the eligibility terms.

#### Terms:

- A bachelor's degree in engineering from an accredited institution.
- Valid SCE membership.
- Valid Saudi National ID/residence permit (Iqama/Muqem).
- FE pass certificate (with NCEES ID).
- Minimum four years of certified professional experience after graduation in the same specialization.
- Application through the applicant's SCE profile at [www.saudieng.sa](http://www.saudieng.sa)
- Payment of SAR 2500 (to SCE account through SADAD) + USD 350 (to NCEES account through net banking).
- Important Dates:

<https://www.saudieng.sa/English/EngineerCorner/Pages/NCEES.aspx>

17/6/2019	Registration opens.
03/09/2019	Registration deadline.
03/09/2019	Cancellation deadline.
27/10/2019 SUNDAY	Exam administration (Reporting Time: 6:30 AM)



## Obtaining Licensure - Roadmap

- ✓ **College Degree in an Engineering Discipline**

The first step is graduating from an ABET-accredited engineering program

- ✓ **FE Exam**

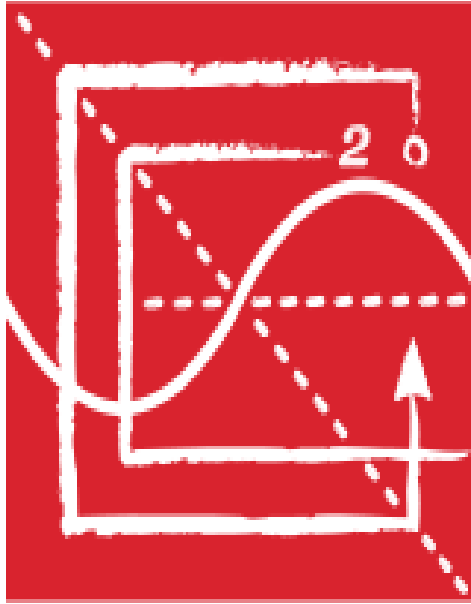
The first exam in the licensure process is the Fundamentals of Engineering (FE). This exam is offered through Pearson VUE throughout the year

- ✓ **Work Experience**

Four years experience as an Engineer

- ✓ **PE Exam**

After the appropriate experience required, you can take the Principles and Practice of Engineering (PE)



# NCEES

*advancing licensure for  
engineers and surveyors*

National Council of Examiners for Engineering and Surveying®

<https://ncees.org/>

280 Seneca Creek Road  
Seneca, SC 29678  
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NCEES is a “US” national “International too” nonprofit organization dedicated to advancing professional licensure for engineers and surveyors. It develops, administers, and scores the examinations used for engineering and surveying licensure in the United States “and abroad”.





# Why Get Licensed “FE and then PE”?

## As Quoted from Licensed Engineers:

- **A license tells me two things:**
  - ✓ **The person is technically competent**
  - ✓ **The person is willing to put in the extra effort**
  
- **A license opens doors, and creates built-in flexibility in your career**



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# Five Reasons to Get Licensed from the NSPE.org Website:

**National Society of Professional Engineers**  
1420 King St.  
Alexandria, VA 22314  
888-285-NSPE (6773)

<https://www.nspe.org/>



## Prestige:

PEs are respected by the public and are seen in the same light as licensed professionals in other fields. PEs are also held in high esteem by their peers within the engineering community, who see the PE as part of an elite group.

## Career Development:

Employers are impressed with engineers who have their PE license. Licensure not only enhances your stature, it shows commitment to the profession and demonstrates heightened leadership and management skills. Licensure is also a necessity for rising to increased levels of authority and responsibility.



## Authority:

Only PEs can sign and seal engineering drawings; and only PEs can be in responsible charge of a firm in private practice or serve as a fully qualified expert witness. Also, many government agencies and educational institutions are emphasizing licensure among their engineers as well.

## Flexibility:

Have a PE license opens up your career options. You can become a specialist, or establish your own business. It also protects you during industry downsizing or outsourcing. The PE license allows you to go as far as your initiative and talent will take you.



## And Money:

Studies have shown that most PEs earn higher pay throughout their business careers. Having your PE allows expanded opportunities beyond a company structure - as an independent consultant for example.



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<https://www.nspe.org/>



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## FE Exam specifications

The FE is offered in seven disciplines. Specifications for the exams are as follows:

- FE Chemical
- FE Civil
- FE Electrical and Computer
- FE Environmental
- FE Industrial and Systems
- FE Mechanical
- FE Other Disciplines

In July 1, 2017, the computer-based FE introduced a new testing component: alternative item types (AITs).

AITs are questions other than traditional multiple-choice questions. Learn more about AITs.





## FE Exam

The Fundamentals of Engineering (FE) exam is generally your first step in the process to becoming a professional licensed engineer (P.E.).

It is designed for recent graduates and students who are close to finishing an undergraduate engineering degree from an EAC/ABET-accredited program.

The FE exam is a computer-based exam administered year-round at NCEES-approved Pearson VUE test centers.

The FE exam includes 110-questions. The exam appointment time is 6 hours long and includes

- Nondisclosure agreement (2 minutes)
- Tutorial (8 minutes)
- Exam (5 hours and 20 minutes)
- Scheduled break (25 minutes)



## FE Exam

### Reference materials and exam prep

- The NCEES FE Reference Handbook is the only reference material that can be used during the exam. You will be provided with an electronic reference handbook during the exam. For access prior to your exam, you may either purchase a hard copy or download a free electronic copy.
- Register or log in to MyNCEES to download your free copy of the FE Reference Handbook.
- NCEES offers practice exams. These practice exams contain questions that have been used on past exams and questions written just for study materials to give you extra practice.
- The NCEES practice exams now come in paperback print copies. Online practice exams are no longer available. If you have already purchased an online practice exam, you will have access to the exam until the exam is completed or until your purchased time expires.
- Learn more about NCEES exam prep materials.



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## NCEES Examinee Guide

- **The NCEES Examinee Guide is the official guide to policies and procedures for all NCEES exams. All examinees are required to read this document before starting the exam registration process. It is your responsibility to make sure that you have the current version.**
- **NCEES exams are administered in either a computer-based format or a pencil-and-paper format. Each method of administration has specific rules. This guide describes the rules for each exam format.**

**Refer to the appropriate exam format to learn about the following:**

- ✓ **Testing environment**
- ✓ **Proper identification needed for admittance to the testing room**
- ✓ **Items allowed in the testing room**
- ✓ **Approved calculators**
- ✓ **Approved comfort aids**
- ✓ **Reference materials**
- ✓ **Special accommodations**
- ✓ **Exam breaks**
- ✓ **Exit procedures**
- ✓ **How to report exam irregularities**
- ✓ **Post-exam survey**



## FE Exam

### Scoring and reporting

FE exam results 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 include information specific to your licensing board regarding how you should proceed based on your performance.

Learn more about the exam scoring process.

### Pass rates

FE pass rates are shown for the January–June or July–December population (updated in July and January, respectively). The pass rates below represent FE examinees who

- ✓ Took the FE exam for the first time
- ✓ Attended EAC/ABET-accredited engineering programs
- ✓ Took the FE exam within 12 months of graduation



## FE Exam

### Exam preparation materials

- **Why not study with NCEES? You'll have the advantage of using exam preparation materials developed by the same people who create the exam.**
- **Practice exams**
- **NCEES practice exams help you determine what you know—and what you don't know—before taking the exam. NCEES practice exams**
  - ✓ **Contain questions from past exams**
  - ✓ **Simulate the format, style, and level of difficulty**
  - ✓ **Provide solutions or feedback on performance in each topic area**
- **Supplied-reference handbooks**
- **Reviewing the appropriate supplied-reference handbook before exam day helps you become familiar with the charts formulas, tables, and other reference information provided.**
- **Use the button below to explore NCEES exam prep materials by exam type and discipline. Free PDF downloads and exam prep purchases are made via your MyNCEESaccount.**



## FE Exam

### Pass rates

Exam	Volume	Pass rate	Format	Availability	Last updated
FE Chemical	503	77%	CBT	Year-round	Jan 2019
FE Civil	3868	67%	CBT	Year-round	Jan 2019
FE Electrical and Computer	991	69%	CBT	Year-round	Jan 2019
FE Environmental	381	77%	CBT	Year-round	Jan 2019
FE Industrial and Systems	103	74%	CBT	Year-round	Jan 2019
FE Mechanical	2754	78%	CBT	Year-round	Jan 2019
FE Other Disciplines	640	79%	CBT	Year-round	Jan 2019



## FE Exam

### Other Disciplines exam breakdown by examinee degree\*

Program	Volume	Pass rate	Format	Availability	Last updated
Agricultural	49	82%	CBT	Year-round	Jan 2019
Architectural	73	81%	CBT	Year-round	Jan 2019
Bio-Medical (not Biological)	29	79%	CBT	Year-round	Jan 2019
Biological (not Bio-Medical)	94	84%	CBT	Year-round	Jan 2019
Civil	25	68%	CBT	Year-round	Jul 2018
Engineering Physics/Engineering Science	51	76%	CBT	Year-round	Jul 2018
General Engineering	40	85%	CBT	Year-round	Jan 2019
Geological & Geophysical	35	69%	CBT	Year-round	Jul 2018
Materials	34	76%	CBT	Year-round	Jul 2018
Mechanical	37	81%	CBT	Year-round	Jan 2019
Mining/Mineral	106	39%	CBT	Year-round	Jul 2018
Naval Architecture & Marine	49	84%	CBT	Year-round	Jan 2019
Nuclear	60	85%	CBT	Year-round	Jul 2018
Ocean	34	97%	CBT	Year-round	Jul 2018
Petroleum	102	64%	CBT	Year-round	Jan 2019
Structural	26	100%	CBT	Year-round	Jul 2018



## Exam Scheduling

- Examinees register and schedule appointments through their MyNCEES accounts.
- During the registration process, examinees select their exam location. Next, they are presented with a list of available exam dates.
- If examinees are not happy with the choices, they can browse through the available dates at other NCEES-approved test centers.





## Exam Registration

- Register for an FE exam by logging in to your MyNCEES account and following the onscreen instructions. Prepare for the FE exam by
  - ✓ Reviewing the FE exam specifications, fees, and requirements
  - ✓ Reading the reference materials
  - ✓ Understanding scoring and reporting
  - ✓ Viewing the most up-to-date FE exam pass rates

\*A \$175 exam fee is payable directly to NCEES. Some licensing boards may require you to file a separate application and pay an application fee as part of the approval process to qualify you for a seat for an NCEES exam. Your licensing board may have additional requirements. Special accommodations are available for examinees who meet certain eligibility criteria and sufficiently document their request.\*



## International registration

North American examinees may sit for the exam at any NCEES-approved test center. However, if you are approved to register for the exam through an international entity other than Canada, you must take your exam at an approved site in that country. Learn more about NCEES exam administration outside of the United States.



## International Standards

**NCEES Chief Executive Officer, Jerry Carter, talks about NCEES engaging with foreign partners through memberships in international organizations and discussing issues such as evaluating engineering programs and assessing learning outcomes.**

<https://youtu.be/N18obCwQOm4>



# Saudi Arabia SCE Requirements and Registration Details

## Exam registration and authorization

- NCEES administers exams in Saudi Arabia under an agreement with the Saudi Council of Engineers (SCE).
- SCE requires examinees to submit an application and/or pay an application fee to the board. Once approved, examinees may register with NCEES to schedule an exam. Examinees should contact SCE directly ([exam@saudieng.sa](mailto:exam@saudieng.sa)) for details.
- A \$200 exam fee is payable directly to NCEES as part of the registration process.
- Examinees will be provided one attempt per testing window and no more than three attempts in a 12-month period.



## Value of licensure

Professional licensure protects the public by enforcing standards that restrict practice to qualified individuals who have met specific qualifications in education, work experience, and exams.

In the United States, licensure for the engineering and surveying professions is regulated by state. Candidates interested in pursuing licensure are encouraged to check the requirements in the state or territory where they plan to practice, as the requirements vary.

<https://youtu.be/kXg8uzPbyEg>



# Thank You!