BECOMING A PROFESSIONAL ENGINEER

Florida Board of Professional Engineers
Why become a licensed Professional Engineer?

• Allows you to call yourself a Professional Engineer, or PE
• Demonstrates that you have technical competency in your area of practice
• Gives you authority to sign and seal engineering plans and drawings
• Allows you to qualify an engineering company
• Allows you to practice engineering under your own name
• Enhances your career options; sets you apart during hiring
• Boosts income; can put you on a faster track to management
• Allows you to act as an expert witness and consultant
About FBPE & FEMC

• Florida Board of Professional Engineers
  • Regulatory Board
  • Created in 1917 by the Florida Legislature
  • 11 Board members: 9 are licensed PEs; 2 are laypersons; all appointed by the Governor
  • Over 43,000 active licensed engineers in Florida

• Florida Engineers Management Corporation
  • Established in 1998 by Legislature (Section 471.038, Florida Statutes)
  • Non-profit, single-purpose corporation contracted with the Department of Business and Professional Regulation
  • 7-member corporate board of directors: 5 appointed by FBPE; 2 laypersons appointed by DBPR
What is the Florida Board of Professional Engineers?

“Committed to protecting the interest of public health and safety by properly regulating the practice of engineering.”

• Makes rules for the profession of engineering
• Reviews applications for licensure
• Takes disciplinary actions against engineers
• Meets 6 times a year in designated locations around Florida
• All Board meetings are open to the public
What is the Florida Engineers Management Corporation?

• Issues licenses to those certified by FBPE as qualified to practice engineering
• Provides administrative services to FBPE
• Provides investigative and prosecutorial services for disciplinary actions by FBPE
• Promotes engineering licensure by outreach to prospective engineers and information to the public
What is NCEES?

• The National Council of Examiners for Engineering and Surveying
• National, nonprofit organization dedicated to advancing professional licensure for engineers and surveyors
• Develops, administers, and scores the examinations use for engineering and surveying licensure in the United States
• Provides central licensure recordkeeping for engineers
• Provides credentials evaluations
The path to licensure: The 3 E’s

• Education — Degree from an EAC/ABET-accredited engineering, an ETAC/ABET-accredited engineering technology program, or its equivalent

• Exams — Fundamentals of Engineering, and Principles & Practice of Engineering

• Experience — Must earn engineering experience under the supervision of a licensed Professional Engineer that is progressive in nature
Fundamentals of Engineering (FE) exam

• Developed and administered by NCEES
• Focuses on academics, not the practice of engineering
• 7 discipline-specific exams, based on math, science, and engineering coursework
• 6-hour, computer-based test
• Given at Pearson VUE Centers six days a week, in exam windows year-round
• Results in about a week
FE exam registration

• Register and schedule directly with NCEES
  • Costs $175 (exam fee)

• Engineer Intern (EI) certificate in Florida
  • Pass FE exam
  • Hold ABET-accredited bachelor’s degree in engineering or engineering technology
  • Submit Application for EI Certification to FBPE
  • Costs $100
FE exam tips

• Visit NCEES.org and carefully read all material about the FE exam
• Have a valid I.D. and NCEES-approved calculator when going to take the exam
• Take exam around your senior year or just after a graduation

Remember: The FE exam is based on coursework.

You want to take it while that information is still fresh in your mind.
Click to view video.
Principles & Practice of Engineering (PE) exam

- Developed and administered by NCEES
- Discipline-specific exam, based on the practice of engineering
- 8-hour, pencil-and-paper or computer-based exam
- Most pencil-and-paper exams given twice a year (April and October), but some are single-day exams
- Computer-based testing (CBT) for:
  - Chemical, Environmental, and Mechanical exams (in exam windows year-round)
  - Nuclear, Petroleum, Fire Protection, and Industrial Systems exams (single-day)
- All exams transitioning to CBT by 2024
- Eligibility varies by state/territory
PE exam registration

• Must have passed the FE exam

• No engineering experience required
  • Though NCEES statistics show that first-time examinees are more likely to pass the exam after two years of engineering experience

• Register and schedule directly with NCEES
  • $350 for pencil-and-paper exams
  • $375 for CBT exams
  • $500 for two-day structural exam
PE exam tips

• Visit NCEES.org and carefully read all material about the PE exam
• Have a valid I.D. and approved calculator when going to take the exam
• Know which discipline-specific exam to take

The PE exam is based on experience.
You want to take it based on the field of engineering you have been working in, not necessarily in the field you majored in.
Click to view video.
PE licensure in Florida

- Must be 18 years of age in Florida
- Submit Application for Licensure as PE and $230 fee to FBPE
- Florida does not license by discipline
  - Must be competent in the fields in which you practice
  - Can be restricted by the Board from practicing in certain fields
  - Can be required by the Board to take a PE exam in another field
- Florida restricts use of “professional engineer” and similar titles to licensed professionals
  - Restricted titles include “architectural engineer,” “building engineer,” “plumbing engineer,” “software engineer,” “systems engineer,” “transportation engineer,” etc.
- Must be licensed in each state where you practice engineering
Experience required for PE licensure in Florida

- When applying for Licensure as a Professional Engineer, you must have:
  - 48 months of experience for graduates with Board-approved engineering degrees
  - 72 months of experience for graduates with Board-approved engineering technology degrees

- Experience must be:
  - Under the supervision of a Professional Engineer
  - Progressive in nature, assuming more responsibility
  - Engineering experience (not construction, management, etc.)

- Keep a log of your experience
  - Who you worked for
  - Who your supervising PEs were
  - Contact information for supervisors
  - Types of jobs you worked on, descriptions of duties
Exceptions to experience

• Undergraduate internship
  • In last two years of bachelor’s program
  • Must be full time
  • Counts at 50 percent

• Earning a master’s degree or a doctorate in engineering
  • Reduces experience required by a maximum of 12 months each
  • No double-dipping (can’t also count work experience during that time)
Maintaining your PE license

• Keep your contact information up to date so that FBPE can contact you
• Renew your license every 2 years

• 18 hours of continuing education every 2 years, including:
  • 1 hour of Florida laws and rules of professional engineering
  • 1 hour of professional ethics
  • 4 hours in area of practice
  • 12 hours on any topic pertaining to the practice of engineering

• Use NCEES CPC Tracking to record your continuing education credits and keep tabs on multiple state requirements
Click to view video.
Use NCEES Records

- Create an account at NCEES.org, allowing you to record and track:
  - Official college transcripts
  - Exam results
  - Engineering experience (which is reviewed and verified by NCEES)
  - Licensure verifications
  - Licensure renewals from state to state

- No charge to set up or maintain a NCEES Records account
  - $150/$175 for first transmittal of licensure information to a state licensing board
  - $75 for all subsequent transmittals

- Continuing Professional Competency (CPC) Tracking
  - No charge for CPC Tracking
  - Record your continuing education courses
  - Monitor CE requirements across multiple states
Mobility of licensure

- Each state has its own regulations regarding licensure
- Florida offers endorsement applications for those licensed in other states
- PE exam is a national exam
  - NCEES develops and administers the exam
  - Consistent from state to state
  - Accepted in all states
- NCEES Records program can help with multi-state licensure
  - Free to set up; charges to transmit records
  - 7-10 days to get a license vs. 30 days for traditional paperwork
Click to view video.
Student Resources

Online at:
fbpe.org/student-resources/

Quick links to useful info:
• Why you should become a licensed Professional Engineer
• The steps in the licensure process
• How 2019 statute changes make it easier to earn your license
• NCEES exam specifications, exam guide, and reference handbook
• FBPE’s Connection newsletters and how to subscribe
• Facebook and LinkedIn
• PDF of this presentation
Do you have any questions?
Click to view video.