What is P.E.?
Licensure for Engineers  
(Professional Engineer: P.E.)

• Many jurisdictions require engineers to be licensed in order to practice
• Provides additional career options and opportunities
  – You decide to start your own company  
  – You decide to be a consultant
• National Council of Examiners for Engineering and Surveying (NCEES: www.ncees.org)
  – Pennsylvania Licensing Board  
    (www.dos.state.pa.us/eng)
How Do I Get Licensed?

- **Step 1: Graduation**
  - Graduate with an ABET accredited B.S. degree in Engineering or Engineering Technology

- **Step 2: FE (Fundamentals of Engineering) Exam**
  - Most engineering students take this exam right before or soon after graduation
  - Once you pass the FE exam, you are classified as an *Engineer-in-Training (EIT)*
    - Also known as *Engineering Intern (EI)*
How Do I Get Licensed? (cont....)

• **Step 3: Work Experience**
  – Four (4) or more years of progressive experience in engineering work earned after the issuance of the EIT certificate
  – Experience shall be under the supervision of a P.E. or similarly qualified individual
  – You may obtain one year of experience credit for each post-baccalaureate degree (not to exceed two years)
    • Shall be full time student in the same engineering field
How Do I Get Licensed? (cont....)

• Step 4: PE Exam
  – Principles and Practice of Engineering
  – After completing the required work experience, you can take this second exam in the licensure process

• Step 5: Now you are a Professional Engineer!
  – John Smith, P.E.
What is Fundamentals of Engineering (FE) Exam?

• Eight hour long exam: Two four hour sessions
  – Closed book (Reference material supplied)
  – AM session
  • General exam common to all disciplines
  • 120 multiple choice questions
  • Engineering Mechanics (Statics/Dynamics), Strength of Materials, Material Properties, Fluid Mechanics, Electricity and Magnetism, Thermodynamics
What is FE Exam? (cont.....)

– PM session
  • Discipline specific (e.g., Electrical Engineering)
  • 60 multiple choice questions
  • Circuits, Electronics, Power, Electromagnetics, Control Systems, Communications, Signal Processing, Digital Systems, Computer Systems
What is Principles and Practice of Engineering (PE) Exam?

• Exam length: 8 hours (Two 4 hour sessions)
• 40 multiple choice questions per session
• Open book exam
  – Hardcopy of your own reference material is also allowed
• Electrical and Computer Engineering
  – Breadth Exam (AM): This exam contains questions from a broad area of electrical and computer engineering
    • Basic electrical engineering, Electronics, Control and Communication Systems, and Power
  – Depth Exam (PM): This exam focuses on a single area of practice in electrical and computer engineering
    • Computers
    • Power
    • Electronics, Controls and Communications
Additional Information

• National Council of Examiners for Engineering and Surveying (NCEES: www.nceees.org)
• Pennsylvania Licensing Board (www.dos.state.pa.us/eng)