Software Engineering Process: A SWEBOK Knowledge Area

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Purpose of Presentation

- Not primarily to promote certification
- Awareness of the CSDP certification
- Awareness of the related SWEBOK Guide
  - Very useful reference
  - Free of charge at www.swebok.org
- Overview of *Software Engineering Process*--one “knowledge area” of the certification exam
The Certification

- CSDP: “Certified Software Development Professional”.
- Similar: Certified Public Accountant, Project Management Professional, etc.
- Not tech-based, such as Cisco, Sun, Oracle, Microsoft, etc.
- The software engineering certification of the IEEE Computer Society. www.computer.org
- Why is the word “engineer” missing?
What is Certification?

- Institutions are accredited, individuals are certified.
- Certification is not licensure or registration.
- Certification is voluntary—neither a key nor a barrier to practice.
- Certification is peer recognition based on structured criteria.
How to Become Certified

- Education: Baccalaureate degree (minimum)
- Experience: 9,000 hours of experience in at least 6 of the 11 knowledge areas
- Examination: based on the SWEBOK guide
- Continuing Education: via Professional Development Units (PDUs)
- Notably similar to certifications offered by PMI, ASQ, and others
Knowledge Areas

I. Professionalism and Engineering Economics (3-4%)
II. Software Requirements (13-15%)
III. Software Design (22-24%)
IV. Software Construction (10-12%)
V. Software Testing (15-17%)
VI. Software Maintenance (3-5%)
VII. Software Engineering Management (10-12%)
VIII. Software Configuration Management (3-4%)
IX. Software Engineering Process (2-4%)
X. Software Engineering Tools and Methods (2-4%)
XI. Software Quality (6-8%)
Inside the SWEBOK Guide

- Similar to the PMBOK Guide—and others.
- We'll see:
  - A sub-topic breakdown of tonight's knowledge area, i.e. coverage of the Software Engineering Process knowledge area.
  - A matrix of references for each sub-topic.
  - Result: An effective roadmap for achieving breadth of learning on Software Engineering Process.
Remainder of Presentation

- For tonight's attendees--

- For future readers of this presentation--
  - Visit [www.swebok.org](http://www.swebok.org) to download and inspect your own copy.

- For everybody--
  - Visit [www.c-spin.net](http://www.c-spin.net) for archived presentations.