



INCOSE Certification Provides Common Framework for Systems Engineering Communication and Personnel Development







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© 2006-2013 International Council on Systems Engineering Subject to the restrictions on Copyright Page What this project needs is a **SYSTEMS ENGINEER**.



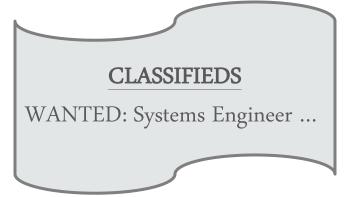
I think I'm a systems engineer.

I'm a **systems engineer**, too.



Communications

- Hiring
- Staffing a team
- Writing proposals



?



I think

I'm a

systems

engineer.



Common Framework



INCOSE

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded in 1990 to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems.

Systems Engineering Handbook

The Systems Engineering Handbook (SEHB) shows what each systems engineering process activity entails, in the context of designing for affordability and performance. Allows for tailoring to a variety of projects.

SYSTEMS ENGINEERING HANDBOOK

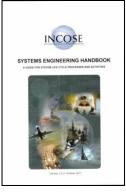


Even If You Disagree ...



Ways our organization agrees with the SEHB

- Emphasis on upfront requirements development
- Standard milestone reviews
- Lifecycle perspective



Ways our organization differs from the SEHB

- Different names for milestone reviews
- Shorter list of specialty engineering areas

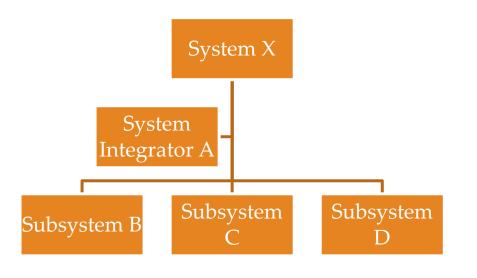


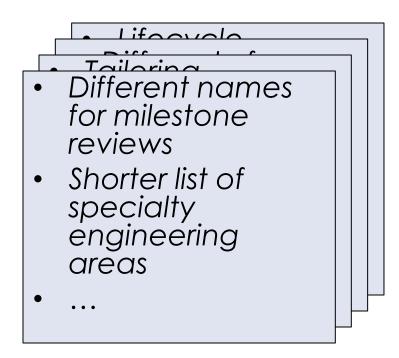
Team Communication



Integrating Diverse Teams

Ways Organization R Ways Organization R Ways Organization R differs from the SEHB







Examples: Contracts Tied to INCOSE Certification



- U.S. Department of Defense, Office of the Undersecretary, Acquisition & Technology, Systems and Software Engineering
- Federal Aviation Administration, SE-2020 RFP
- U.S. Department of Homeland Security, Secure Border Initiative RFP
- National Research Council, Committee on Pre-Milestone A Systems Engineering: A Retrospective Review and Benefits for Future Air Force Systems Acquisition
- Federal Highway Administration and the California Department of Transportation Systems Engineering Guidebook





Examples: Organizations Supporting INCOSE



- EADS
- Booz Allen Hamilton
- ManTech
- MITRE
- Lockheed Martin
- TASC
- BAE Systems
- Jacobs Technology
- ASTER Technology & Engineering
- LinQuest
- Thales

- OPS Consulting
- L-3 Communications
- The SI Organization
- Stevens Institute of Technology
- University of Texas El Paso
- École Polytechnique
- ISAE/Supaero
- University of New South Wales
- Worcester Polytechnic Institute



Organizational Use for Professional Development



- Measurable actions for employees
- Well-defined path for increased expertise
- Renewal requirements drive continued professional learning



SE Development Path



INCOS

Expert Systems Engineering Professional focused on: - LEADERSHIP - SE ACCOMPLISHMENTS

- SIGNIFICANT SE EXPERIENCE

Certified Systems Engineering Professional focused on: - SE EXPERIENCE - APPLIED SE KNOWLEDGE

Associate Systems Engineering Professional focused on: - SE KNOWLEDGE



SEP Candidates

JCO



Certification Renewal Requirements

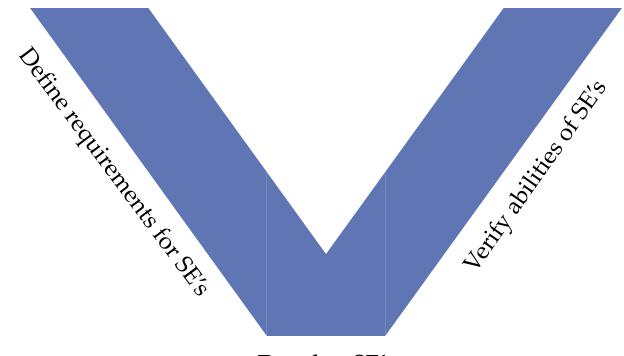


- Technical Society participation
- Graduate courses
- Technical publications
- Receive patents
- Technical leadership job functions
- STEM volunteer activities



Obligatory "Vee"





Develop SE's

INCOSE Certification is a process for developing Systems Engineers.

Development Framework







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> For more information visit: <u>www.incose.org/educationcareers/certification/</u>