INCOSE Systems Engineering Professional (SEP) Certification Program

INCOSE

International Council on Systems Engineering

A better world through a systems approach

Program Summary

INCOSE SEP Architecture

For wherever you are in your career

Multi-Level Base Credentials

The base ASEP, CSEP, and ESEP credentials cover the breadth of systems engineering at increasing levels of leadership, accomplishments, and experience.

If you have just started (or plan to start) practicing systems engineering or have recently graduated and are interested in system engineering

If you are a practicing Systems Engineer with more than five years of systems engineering professional work experience

If you are a systems engineering leader with recognized systems accomplishments and have many years of systems engineering professional work experience

INCOSE SEP Program Purpose and Benefits

The INCOSE SEP program offers independent assessment of system engineering professionals benefiting:

SYSTEMS ENGINEERING COMMUNITY:

- Creates the standard to identify and develop systems engineering professionals.
- Establishes a formal, recognized body of knowledge for the systems engineering community.

SYSTEM ENGINEERING PROFESSIONALS:

- Provides a portable standard of recognition for attainment of knowledge, education, and experience.
- Serves as a mechanism for continued professional development through recertification requirements.

ORGANIZATIONS/INSTITUTIONS:

- Offers a universal, industry-approved measure of a professional's knowledge – achieved through the independent evaluation of relevant tasks, projects, and programs.

Universities have Certification Agreements

- INCOSE and the following Universities have signed agreements to recognize college courses

ACADEMIC EQUIVALENCY

Colorado State University

NPS Naval Postgraduate School

UMBC

Cornell University

Purdue University

University of Michigan

Drexel University

The University of Alabama in Huntsville

UNSW

George Mason University

University of Detroit Mercy

WPI

Missouri S&T

What Certification is Right for You?

No matter where you are in your professional career, we offer SEP's for every level.

Plan the next step in your career!

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Different Requirements for Each Level

You can enter at whatever SEP level is appropriate and transition between levels when ready.

ESEP focused on:
- Leadership
- SE Accomplishments
- Significant SE Experience

CSEP focused on:
- SE Experience
- Applied SE Knowledge

ASEP focused on:
- SE Knowledge

SEP Candidates

Associate Systems Engineering Professional

If you have just started practicing – or want to start practicing – systems engineering, then ASEP is for you. This certification is for people at the beginning of their career as a systems engineer. The ASEP has "book knowledge" but not yet significant experience as a systems engineer.

- Knowledge verification required
- Suitable for students, early career professional, project and program managers, and all those who "speak systems engineering"

Certified Systems Engineering Professional

If you are a practicing Systems Engineer with more than five years of systems engineering professional work experience, then CSEP is for you.

- Knowledge verification required
- At least five years of experience required
- At least five years of experience verification required
- Suitable for independent practitioners, which includes most systems

Expert Systems Engineering Professional

If you are a systems engineering leader with recognized systems accomplishments and have many years of systems engineering professional work experience, then ESEP is for you.

- At least 20 years of experience required
- At least 10 years of experience verification required
- Suitable for technical leaders who have “moved the needle” in applying systems engineering within a community, which may include their employer, client, or a professional society. Few individuals meet the ESEP requirements, even if they have been practicing systems engineering for a long time

Knowledge Verified by Exam or Coursework

Knowledge Requirements

- Based on INCOSE Systems Engineering Handbook v4
- Required for ASEP and CSEP certification
- Can be verified through knowledge exam
- Can be verified through university coursework

Exam is

- 100 multiple-choice questions
- 100 minutes for exam
- Proctored by video through computer or in-person at INCOSE events
- Administered online with video proctoring
- Offered as a pencil-and-paper test at many INCOSE events
- Allowed to be attempted up to 3 times per 12 months

Academic Equivalency allows course assessments to meet knowledge requirement

- Must score highly in pre-approved university course
- Course may be taught in any language and may use a wide variety of assessment methods
- Course must use INCOSE SE Handbook

Certification & Reference Experience Requirements

SYSTEMS ENGINEERING EXPERIENCE

- CSEP has > = 5 years of professional-level SE experience
- ESEP has > = 20 years of professional-level SE experience

EXPERIENCE CONFIRMATION

- Recommendations from at least 3 colleagues / peers / managers
- References must confirm SE experience claims
- References must be knowledgeable of systems engineering but need not be SE's

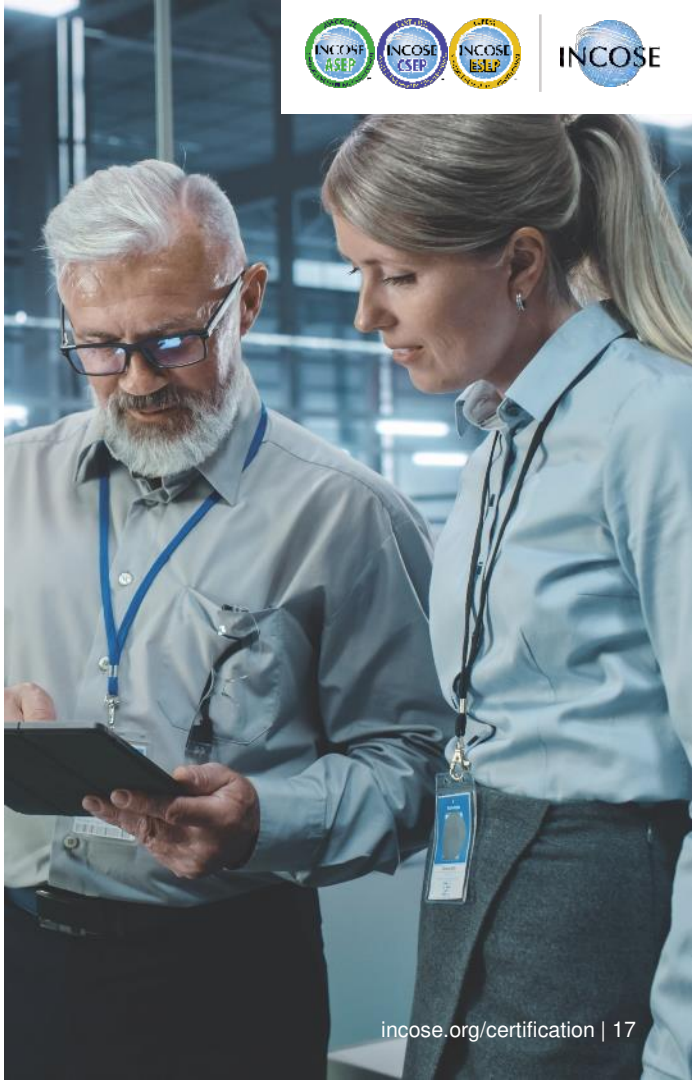
MUST USE INCOSE FORMS

ESEP Technical Leadership Requirements

Minimum of 5 years of professional development

- Product Development Leadership, Technical Society Leadership, and Advanced Academics

ESEP candidates participate in audio interview to confirm SE leadership



ASEP and CSEP Renewal

CERTIFICATION IS VALID FOR DEFINED TIME PERIOD

5 Years for ASEP

3 Years for CSEP

Indefinite for ESEP

All levels must maintain INCOSE individual membership

CERTIFICATION RENEWAL REQUIRES CONTINUING EDUCATION

- Minimum of 120 Professional Development Units (PDUs)
  - Technical Society participation
  - SE course work and publications
  - SE job functions beyond daily work

What People Are Saying

Diego Rangel

“I understood that it is essential to certify your knowledge, especially at the beginning of your career. The SEP certification is an excellent way to demonstrate your qualification standard since it is internationally recognized. This motivated me to get SEP Certification.”

David R. Schneider

“For the university, Academic Equivalency helps to ensure that the curriculum is well-aligned to the INCOSE methodologies and hence has significant professional value for our students. It also distinguishes the course(s)/program offering academic equivalency from peer institutions.

For students, they too earn additional distinction as it is not just the institution stating their SE skill capability, but the student has demonstrated that they met the larger standard established by INCOSE.”

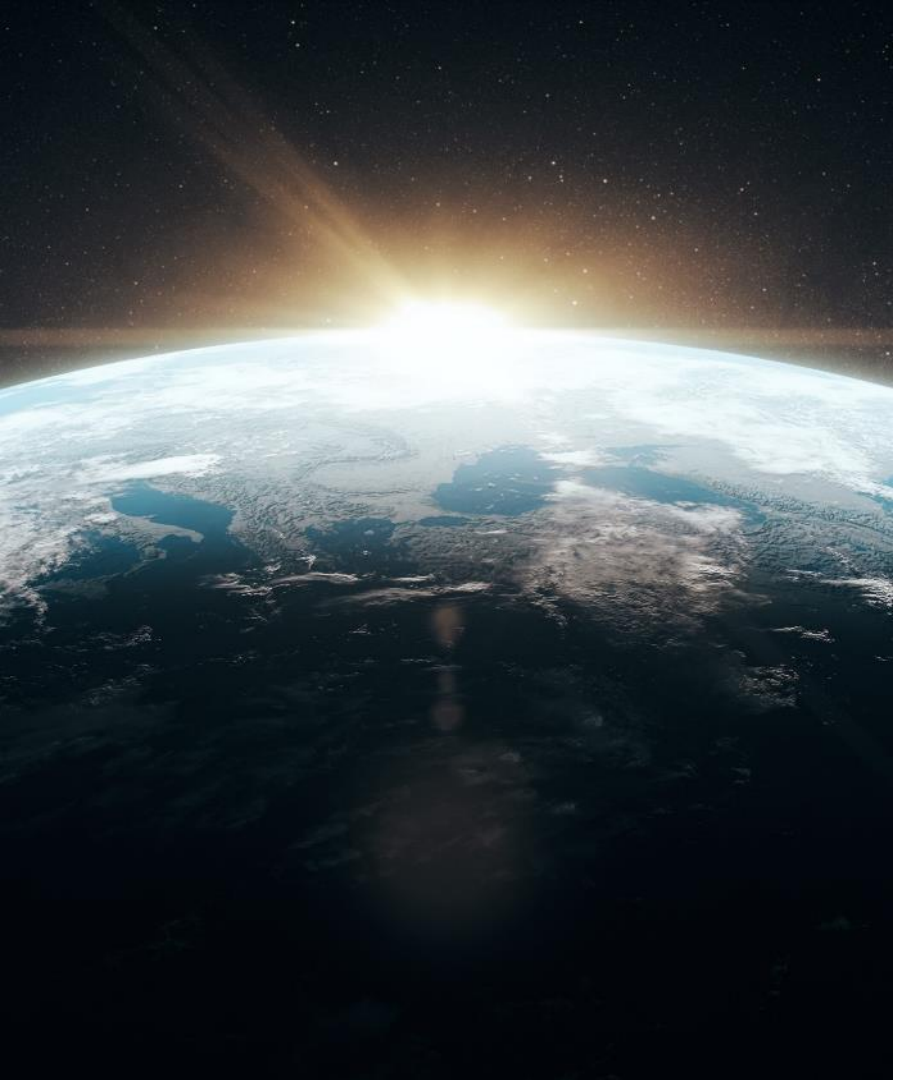
Raksha Mani

“The SEP certification by the INCOSE is a universally recognized certification, helping me prove my competence and knowledge in the different aspects of systems engineering.”

Kahdeem Cohens

“I promote SEP certification. I would suggest that everyone considering it do some introspection on their "why."

In an ideal world, all systems engineering professionals are INCOSE SEPs for personal motivations like recognition, objective communication of your knowledge, and the ability to apply systems engineering learnings in the workplace.”



Any Questions?

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For more information visit
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