

**CER-PROC-01: INCOSE  
Systems Engineering  
Professional (SEP) Certification  
Program Definition and Requirements  
01 March 2026**



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## Foreword

In 2002, the Board of Directors (BOD) of the International Council on Systems Engineering (INCOSE) commissioned a working group to develop a plan for certifying Systems Engineers who have demonstrated knowledge and experience in the discipline. That working group developed a plan that evolved into the INCOSE-approved Operational Plan for the Systems Engineering Certification Program (v6, 2016). That plan contained the policies, processes, and procedures which govern and guide the Certification Program.

In 2017, the Certification Advisory Group (CAG) approved splitting that document into two separate documents:

- The first CER document is CER-PROC-01 INCOSE Systems Engineering Professional (SEP) Certification Program Definition and Requirements (this document). This document is an overview of the SEP program management plan defining the Certification Program and its requirements. It is a public document developed by the CAG.
- The second CER document is CER-PROC-02 INCOSE Certification Operational Procedures. It provides detailed description of the SEP program implementation describing the Certification Program execution. It is a limited release document for the CAG, Certification Manager, and the INCOSE Office Staff and developed by the Certification Program Manager.

In 2022, the Certification Advisory Group (CAG) approved moving CER-PROC-01 Appendix A & Appendix D into separate documents:

- The third CER document is CER-PROC-03 INCOSE Systems Engineering Professional (SEP) Certification Experience Applicable for Certification. It provides a detailed description of the Systems Engineering experience to satisfy the minimum requirements for initial certification. It is a public document developed by the CAG.
- The fourth CER document is CER-PROC-04 INCOSE Systems Engineering Professional (SEP) Certification Guidelines for ASEP and CSEP Recertification. It provides a detailed description of the SEP Recertification requirements. It is a public document developed by the CAG.

## Document Change History

The following table identifies each version or issue of this document and provides a description of the purpose or reason for the change. Performing a document comparison between any two versions of this document can identify detailed change differences.

Version	Date	Comment
Version 1.0	01 Apr 2018	Document created from previous OPS PLAN.
Version 2.0	22 Feb 2022	<p><b>(1)</b> Sec 2.2.1.1: Updated knowledge requirements. Removed mention of ESEP and add AcEq in descriptions of knowledge assessment. <b>(2)</b> Sec 2.2.1.2: Modified definition of qualifying degree. <b>(3)</b> Sec 2.2.4.1: Update on “copy and paste” from application to endorsement for references. <b>(4)</b> Sec 2.2.5.1: Clarification qualifying degree. Update on “copy and paste” from application to endorsement for references. Added statement for recognition of confirmed experience for CSEP to ESEP transition. <b>(5)</b> Sec 2.3: Added statement for certification not valid when membership lapses for those applicable. Updated late renewal verbiage. <b>(6)</b> Sec 2.6: Replaced text about UK and Australian equivalency with text about DAU and academic equivalency. Replaced text about how to get equivalency with mention of additional equivalency paths. Added considerations for academic equivalency and new table 2-5. <b>(7)</b> Sec 3.2.2: Updated CAG membership eligibility requirements and terms. Added PM responsibility to review sites for exam questions. Added varying years of experience and familiarity of cert program to representation statement. <b>(8)</b> Sec 3.2.6 Added exam development section and moved computer test support to section 3.2.7. <b>(9)</b> Appendix B: Updated definition of colleague for reference. Revised reference relevant work experience to 5 years. <b>(10)</b> Appendix D: Incorporated changes to recertification requirements, minimum PDUs and competency areas. Added text to end about 2020 hardship exception for renewal. Added text to about lowered PDU requirement and higher rollover allowed for 2020 renewals. Changed applicability date for new PDU approach.</p>
Version 3.0	01 Sep 2022	<p><b>(1)</b> Executive Summary Added mention of Associate Director – Certification. <b>(2)</b> Sec 1.3 Added sentence allowing for Academic Equivalencies to be offered in languages other than English. <b>(3)</b> Sec 2.6 Removed statement about the detailed process of operating an Academic Equivalency. Moved paragraph about Australian Equivalency to earlier in the section. <b>(4)</b> Sec 3.0 deleted as content is covered in Policy CER-100. <b>(5)</b> Sec 3.2.2 Added paragraph for review by CAG of proposed changes to the</p>

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		procedures. (6) Appendix A moved to separate document CER-PROC-03. (7) Appendix B moved to Sec 2.2.2 (8) Appendix C moved to Sec 2.2.6.2 (9) Appendix D moved to separate document CER-PROC-04.
Version 4.0	31 Jul 2023	<b>(1)</b> Sec 2.2.1.2 removed proof of degree <b>(2)</b> Sec 2.2.5.1 removed reference minimum, updated mention of knowledge requirement <b>(3)</b> Sec 2.2.6.1 removed reference minimum, updated mention of technical leadership requirement
Version 5.0	01 March 2026	<b>(1)</b> Sec 2.2.1.2, Sec 2.2.5.1, and Sec 2.2.6.1: Removed degree-specific requirements and introduced simplified educational background verification rules for CSEP and ESEP applicants <b>(2)</b> Sec 2.2.4.1, Sec 2.2.5.1, and Sec 2.2.6.1: Eliminated the membership requirement for each SEP level <b>(3)</b> Sec 2.2.6.1: Added a written interview option for the ESEP technical leadership interview <b>(4)</b> Sec 2.3: Added clarification on renewal requirements and membership lapse policies for both members and non-members <b>(5)</b> Sec 2.6: Removed incorrect information regarding CASE Pathway 2 and updated the Academic Equivalency section to reflect partnerships with both degree-granting and non-degree-granting academic programs.

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## Executive Summary

CER-PROC-01 INCOSE Systems Engineering Professional (SEP) Certification Program Definition and Requirements document provides an overview of the SEP program management plan defining the Certification Program and its requirements.

Section 1.0, Introduction contains an overview of the Systems Engineering Professional Certification Program mission, value / objectives, and context. The mission of the SEP Certification Program requires a twofold solution. First, it defines Systems Engineering (SE) task terms that can be used by program managers to specify SE tasks or jobs that need to be done, and second, it recognizes SE personnel who have the capabilities to perform the SE task or job assignments. The objectives of this document are to define certification levels and associated requirements, and to define the organizational responsibilities in managing the Program.

The Certification Program recognizes three levels of systems engineering knowledge and experience. The Associate Systems Engineering Professional (ASEP) provides recognition of SE knowledge based on the INCOSE SE Handbook. The Certified Systems Engineering Professional (CSEP) recognizes those who have demonstrated a baseline of SE knowledge and at least five years of direct systems engineering work experience, with enough depth and breadth. The Expert Systems Engineering Professional (ESEP) recognizes those who have demonstrated extensive experience and leadership in the practice of systems engineering with at least twenty years of work experience, with enough depth and breadth. The INCOSE Systems Engineering Handbook is the standard reference used for defining systems engineering knowledge. Specific certification requirements and fees are provided in Section 2.0, Program Requirements.

Section 3.0 on Program Coordination and Changes provides an overview of information privacy, certification knowledge providers, memoranda of agreement, and program changes.

- INCOSE will maintain privacy controls over the Certification information as per the INCOSE Policy on Confidential Information.
- Whenever possible, the Certification Program will try to give at least six months' notice of major changes introduced into the Certification Program.

The following additional supporting information is available in separate documents: The systems engineering experience areas with key activities and example tasks from the INCOSE SE Handbook is detailed in CER-PROC-03 and guidelines for SEP recertification is detailed in CER-PROC-04.

## 1.0 Introduction

The Board of Directors (BOD) of the International Council on Systems Engineering (INCOSE) recognized an industry-wide void and in 2002 responded to a request by its members to establish a program to certify the knowledge and experience of personnel who perform systems engineering (SE). This INCOSE-approved Systems Engineering Professional (SEP) Certification Program

contains the policies, requirements, and coordination necessary to govern the SE Certification Program. The corresponding INCOSE-approved Operational Procedures for the SE Certification Program contains the processes and procedures to execute and implement the Certification Program.

This program overview provides a summary of the background that led to the development of the operational concept and procedures that INCOSE follows for certifying systems engineering professionals. It also defines the objectives and scope of the Certification Program. Initially, this Certification Program recognized only one level of SE Certification – a foundation level named the Certified Systems Engineering Professional (CSEP). After gaining experience in operating the program, INCOSE expanded the program to recognize two additional levels of SE capability – the Associate Systems Engineering Professional (ASEP) reflecting knowledge only and the Expert Systems Engineering Professional (ESEP) recognizing extensive experience plus SE leadership.

## **1.1 Mission**

Program Managers throughout industry frequently ask for systems engineers to perform “SE tasks or jobs.” Too often in their hurry to get someone immediately, the program manager fails to define what capabilities are required of the requested systems engineers. Another aspect of the personnel problem is the large number of people who are called “Systems Engineers” without there being any standardization in what the title means in terms of: What “SE tasks” are they really capable of performing?

The mission of the Certification Program requires a twofold solution:

- Define SE task terms that can be used by program managers to specify SE tasks or jobs that need to be done, and
- Recognize SE personnel who have the capabilities to perform the SE task or job assignments.

### **1.1.1 Define “SE Tasks”**

Many authors and organizations have published definitions for systems engineering and systems engineering jobs. This Systems Engineering Professional Certification Program uses the following systems engineering definition from the Systems Engineering and Systems Definition Document published in 2019.

Systems Engineering is a transdisciplinary and integrative approach to enable the successful realization, use, and retirement of engineered systems, using systems principles and concepts, and scientific, technological, and management methods.

Achieving commonality in defining “SE Tasks” is a bigger problem because of a tendency to intermix system engineering roles, titles, functions, and tasks. In this Certification Program, evaluations of candidates’ systems engineering experience are based on their performance of the tasks identified in CER-PROC-03 - Experience Applicable for Certification.

### 1.1.2 Recognize SE Personnel Capabilities

Defining tasks is only part of the problem in specifying skill sets required for systems engineers. Those who specify or review abilities required for systems engineers are interested in the person's level of systems engineering knowledge. Likewise, they are concerned with the person's systems engineering experience gained from the various types of customers (military, commercial, international), the size of products (total system such as an aircraft weapon system versus a small item such as an electrical connector), and the functional perspective (software, hardware, mechanical, electrical, etc.) of the product developed or the task done.

A program or method for recognizing the SE skill set of individuals needs to account for the person's SE knowledge and experience in applying that knowledge. Industry lacked a standard for identifying and verifying representative systems engineers. In response, INCOSE initiated the systems engineering professional Certification Program described in this plan. The program is achieving four goals defined in "INCOSE Strategic Plan," January 2025, and is responding to the INCOSE community's needs. The contributions of the INCOSE systems engineering Certification Program to each of the INCOSE strategic goals are as follows:

- **Advance Systems Engineering as the world's trusted authority:** The professional SE Certification Program is increasing awareness among professionals, their employers, and their educators of the discipline of Systems Engineering and of INCOSE as the responsible SE professional association. It connects, brokers, publishes and endorses standards, products, and guides from professional societies and standards bodies reflecting the best in Systems Engineering.
- **Foster professional development and systems engineering competencies:** The professional SE Certification Program is making a significant contribution to the promulgation of existing discipline knowledge and is broadening products and services to support the assessment and organizational proficiency in systems engineering.
- **Expand the SE community while growing INCOSE :** SE professional certification is promoting membership in INCOSE as the corresponding professional association that provides the best source of SE contacts and professional expertise, and developing targeted alliances to connect, leverage, and amplify the broader systems community and the collective set of systems approaches.
- **Achieve Operational Excellence:** Rearchitecting INCOSE to achieve current and future objectives inclusive of frameworks and infrastructure for efficiency and effectiveness for member, leader, chapter and organizational needs.

INCOSE members supported establishment of a Certification Program, as documented in a survey conducted in the first half of 2001. The detailed responses showed a perception that certification will increase the credibility, marketability, and professional status of systems engineers. Respondents also believed that a Certification Program would benefit employers by providing an objective means for selecting candidates and assessing skills. Individuals viewed attainment of certification as an accomplishment, and more than half indicated that they would participate in a Certification Program, notwithstanding a lack of conviction that certification would influence

employment. A 2024 PropFuel survey of new members to INCOSE found that 43% listed “earning my certification” as their primary motivation for INCOSE membership. This Certification Program continues to be a key aspect of INCOSE’s strategic and operating plans.

## 1.2 Values

The value of the Certification Program is developing a formal process whereby a community of performing skilled representatives, such as INCOSE, warrant that a person has achieved certain skills. Certification differs from licensing in that licenses are permissions granted by a government entity for a person to practice within its regulatory boundaries. Certification also differs from a “certificate” that documents the successful completion of a training or education program.

The objective for the INCOSE Systems Engineering Professional Certification Program is to provide a formal method for recognizing the knowledge, experience, and leadership of systems engineers.

The objectives of this document are to define:

- Certification levels and associated requirements, and
- Organizational responsibilities in managing the Program.

## 1.3 Context

The INCOSE Systems Engineering Professional Certification Program recognizes individuals who have demonstrated a level of comprehension and proficiency in the systems engineering profession. The Program does not encompass the legal aspects of chartering, licensing, or registering engineers.

The Certification Program recognizes three levels of systems engineering knowledge and experience. The Associate Systems Engineering Professional (ASEP) provides recognition of SE knowledge based on the INCOSE SE Handbook. The Certified Systems Engineering Professional (CSEP) recognizes those who have demonstrated a baseline of SE knowledge and experience. The Expert Systems Engineering Professional (ESEP) recognizes those who have demonstrated extensive experience and leadership in the practice of systems engineering. The INCOSE Systems Engineering Handbook is the standard reference used for defining systems engineering knowledge. Specific certification requirements and fees are provided in Section 2.0, Program Requirements.

The INCOSE Systems Engineering Handbook is the standard reference used for defining systems engineering knowledge. The certification exam was based initially on SE Handbook Version 2A. In 2010, the exam transitioned to using SE handbook Version 3.2 as the standard reference. The certification examination continued to be based on this version of the handbook until 31 December 2015. The Certification Office started testing on the SE Handbook version 4.0 in September 2015, overlapping with the testing on version 3.2. Testing on version 3.2 continued in Germany, China, and Korea until version 4.0 was translated and published in those countries’ local languages, which occurred in mid-2017. Beta testing of the INCOSE SE Handbook Fifth Edition (SEH5E) occurred in advance of the handbook’s release in July 2023. Starting in July 2023, the exam was identified as a hybrid and was based on only the overlapping content found in both the fourth and fifth

editions of the INCOSE SE Handbook. Starting in March 2025, the exam transitioned to testing only the fifth edition of the INCOSE SE Handbook.

English is the official language for all certification related efforts. However, the INCOSE Systems Engineering Professional Certification Program may work with chapters and other entities to provide guides or translations in other languages. Equivalencies, including Academic Equivalencies, may be offered for assessments delivered in other languages. If questions arise, the English versions of all items will be the final authority.

## **1.4 References**

1. “INCOSE Systems Engineering Handbook,” Version 5.0, Wiley, 2023.
2. “INCOSE Strategic Plan,” 2024.
3. “Defense Acquisition Guidebook,” Chapter 4 Systems Engineering, August 2010.
4. Excerpts from “INCOSE Admin Support Contract,” effective February 2018.
5. CER-PROC-03 Experience Applicable for Certification
6. CER-PROC-04 Guidelines for ASEP and CSEP Recertification
7. ADM-102 INCOSE Policy on Confidential Information, January 2023.

## 2.0 Program Requirements

Section 2.0 on program requirements provides an overview of the certification architecture, the details for each certification level's requirements, and information on the renewal requirements.

### 2.1 Certification Architecture

The architecture for the SE Professional Certification Program consists of three levels – ASEP, CSEP, and ESEP.

The Certification Program offers the Associate Systems Engineering Professional (ASEP) that recognizes individuals who wish to be recognized as knowledgeable but without demonstrated SE experience. The qualification for the ASEP is possession of SE knowledge typical of a junior systems engineer, as evidenced by passing the knowledge exam or otherwise having knowledge verified through an equivalency.

The Certified Systems Engineering Professional (CSEP) recognizes systems engineering practitioners who have demonstrated knowledge and experience in many aspects of the discipline. The qualifications for this level include education, SE knowledge, and SE experience that serve various job profiles of an experienced, all-round systems engineer.

A CSEP should be capable of carrying out systems engineering tasks in many work situations based on the certified knowledge basis, which includes the insight to recognize domain and role specific practices within the overall context of the systems engineering discipline. Thus, the certified practitioner should be capable of practicing in a broad range of domains including military systems acquisition and development, commercial product engineering, and public infrastructure engineering.

The experience level recognized by the CSEP status is that of a self-sufficient individual who is capable of “finding their own way” to make a productive contribution in most work situations. The prevalent profile to which the CSEP is targeted is that of engineering or equivalent discipline graduates with several years of discipline experience (i.e. electrical, mechanical, software etc.) included within a minimum of five years of SE experience.

The Expert Systems Engineering Professional (ESEP) certification is for those system engineers who have distinguished themselves by demonstrating both substantial experience and technical leadership.

### 2.2 Systems Engineering Certification Requirements

This section provides some background on the knowledge, experience and education, and leadership necessary for a SEP Certification and then defines the requirements for the three levels of certification.

## **2.2.1 Knowledge, Experience, Education, and Leadership for SEP Certification**

### **2.2.1.1 Knowledge Requirements**

INCOSE assesses knowledge for ASEP and CSEP candidates in two ways. Candidates for certification may pass a standardized, written, multiple-choice knowledge exam developed with the assistance of psychometricians. These exams may be online, accessed remotely by computer with video proctor or in a classroom with an in-person proctor. Academic equivalencies and some other equivalencies also meet the knowledge requirement through various assessment methods. In most cases, the knowledge qualification expires after 12 months, so certification must be applied for within 12 months of knowledge verification.

### **2.2.1.2 Experience and Education Requirements**

The System Engineering experience areas are provided in CER-PROC-03. Certification at the CSEP and ESEP level requires a certain number of years of experience in a determined number of SE experience areas, as well as a balance between the depth and breadth of SE experience in performing some, but not all, SE functions. For CSEP, the amount of experience required depends on the candidate's college education, that is, whether they have a qualifying degree. For ESEP, the amount of experience required depends on whether the candidate is already certified as a CSEP.

A qualifying bachelor's degree or equivalent in the INCOSE Systems Engineering Professional Certification Program is the recognition granted by an accredited college, university, or similar institution of higher learning, of successful completion of a minimum four-year course of study of engineering and/or scientific principles and practices applicable to engineering a system. Examples of acceptable engineering fields of study are aeronautics, biomedical, chemical, civil, computer, electrical, environmental, mechanical, nuclear, software, and systems. A qualifying degree must include two courses in calculus and two courses in a physical science with one of the science courses having an associated laboratory. Examples of acceptable scientific fields of study are computer science, mathematics, and physics. The Certification Program Office will consider other degrees for acceptability on an individual case basis.

### **2.2.1.3 Leadership Requirements**

For ESEPs, leadership is assessed. The candidate must have at least five (5) years of post-bachelor's degree professional development and/or leadership contributions to the systems engineering profession. Leadership is a position or function of going before, showing the way, leading, directing, managing, guiding, escorting, coaching, influencing, or directing others to follow.

## **2.2.2 Candidate References**

A reference is an associate or fellow worker who has greater than or equal to 5 years of systems engineering experience and can attest to the candidate's "systems engineering knowledge" and experience in successfully performing "systems engineering tasks."

Part of the process in certifying a candidate as a Systems Engineering Professional is to obtain data from references that the candidate performed the tasks as described in the application. All the following categories of people should qualify as credible references:

- Supervisors for whom the candidate works and/or who provides their systems engineering performance rating
- Program Managers/Task Leaders for whom the candidate works and/or who provides input for their systems engineering performance rating
- INCOSE Fellows who are acquainted with the candidate's work (experience), knowledge, leadership, and contributions to systems engineering
- INCOSE Leaders who are acquainted with the candidate's work (experience), knowledge, leadership, and contributions to systems engineering
- INCOSE Certified Systems Engineering Professionals who are acquainted with the candidate's work (experience), knowledge, leadership, and contributions to systems engineering.

Requirements for qualified references:

- INCOSE CSEPs, ESEPs, and Fellows are automatically qualified – but SEP is NOT mandatory,
- References do not necessarily need to be practicing systems engineers, but shall be knowledgeable of, or able to assess, systems engineering process or work-products,
- References must have a minimum of 5 years of relevant work experience, and
- References do not all need to be managers or supervisors.

A candidate should provide qualified references from a mixture of these categories. Thus, a candidate should limit references to two from any one category. References, who provide information to support a candidate and their reasons for the recommendation, should also submit information on their own work (experience), knowledge, leadership, and contributions to systems engineering. They are also required to select a checkbox confirming that they have at least 5 years of work experience in systems engineering. A reference's resume is usually too shallow in details to be effective at proving the reference is qualified; additional details are required.

References should write their own statement of the applicant's experience and confirm what the applicant has documented in their application form; however, they may use the description verbatim from the application, as long as they make an independent statement asserting their agreement and provide some qualitative assessment of the experience they validate.

References must have known the candidate and been aware of their systems engineering work during the time for which the reference is confirming that experience. References are not required to have had daily interaction during the period they are confirming.

### **2.2.3 Certification Fees**

Candidates will pay the current fee listed on the INCOSE website with their applications for certification. The application fees are non-refundable and are valid for only one year from the date INCOSE receives the application fee. Certification fees follow the INCOSE fee structure when

possible, including discounts for students and candidates from low-income countries, according to LST-103 Purchasing Power Parity.

With the exception of paper exams, ASEP and CSEP candidates will pay an additional exam fee (as noted on the INCOSE web site) to the testing organization at the time of scheduling the certification exam. Any exam retake will require an additional exam fee payment from the candidate to the testing organization at the time of scheduling the certification exam retake (again, except for paper exams). Paper exam fees are paid directly to INCOSE and are listed on the INCOSE website. Finally, the renewal or late renewal of SEPs requires submittal of the applicable renewal fee listed on the INCOSE web site.

The INCOSE Certification Office accepts advance payment from organizations to cover the certification application costs for groups of individuals named with the payment, or for the purchase of coupons. The named employees or coupon users have one year from the time of the group application payment to complete their individual certifications that includes submitting the individual application forms and references and scheduling and passing an exam.

#### **2.2.4 Associate Systems Engineering Professional (ASEP) Certification**

The initial ASEP certification is valid for a period of five years. It is renewable for five-year periods. The actual certification period will commence on the date that INCOSE issues the initial certification.

This section defines the criteria and requirements that must be satisfied to obtain an initial ASEP certification for renewing an existing ASEP certification.

##### **2.2.4.1 ASEP Requirements**

The requirements for recognition as an ASEP are:

- Pass the knowledge exam or equivalent.
- Meet the continuing education requirements for renewal of ASEP certification at five-year increments.

##### **2.2.4.2 ASEP Transition to CSEP**

This section defines the requirements for transitioning from an existing ASEP certification to a CSEP certification.

Those who have achieved ASEP recognition may transition to CSEP by completing the CSEP experience requirements, defined in section 2.2.4.1, and submitting the CSEP application along with the requisite fee for gaining CSEP recognition. The fee for the transition application is listed on the INCOSE website. No additional examination is required for this transition.

#### **2.2.5 Certified Systems Engineering Professional (CSEP) Certification**

The initial CSEP recognition is valid for a period of three years. It is renewable for three-year periods, with no limit to the number of times it may be renewed. The actual certification period will commence on the date that INCOSE issues the initial certification.

This section defines the criteria and requirements that must be satisfied for obtaining an initial CSEP certification and renewing an existing CSEP certification.

### **2.2.5.1 CSEP Requirements**

The requirements for recognition as a CSEP are:

- Meet the knowledge requirement or equivalent.
- Have five (5) years systems engineering experience with a qualifying degree. If lacking a qualifying degree, the following is required:
  - With a non-qualifying bachelor's degree or no degree: 10 years of engineering experience is required, of which a minimum of 5 years must be SE experience
- Have qualified references (see Section 2.2.2) who:
  - With a qualifying degree: validate a combined minimum of 5 years SE experience.
  - Without a qualifying degree: validate a combined minimum of 10 years of engineering experience of which a minimum of 5 years must be SE experience.
- Meet the continuing education requirements for renewal of CSEP certification at three-year intervals

To achieve the desired depth and breadth in the minimum 5 years of SE experience, the CSEP candidate must have at least one year of SE experience in each of three or more of the systems engineering experience areas listed in CER-PROC-03.

### **2.2.6 Expert Systems Engineering Professional (ESEP) Requirements**

This section defines the criteria and requirements that must be satisfied for obtaining an ESEP certification.

#### **2.2.6.1 ESEP Requirements**

The requirements for recognition as an ESEP are:

- Demonstrate technical leadership during an oral or written interview.
- Have twenty-five (25) years systems engineering experience with a qualifying degree or (twenty (20) years if already CSEP, in recognition of the confirmed experience from the CSEP application and approval). The experience may be gained before, after, or during the earning of the qualifying degree. There is no constraint on when the experience was gained compared to when the CSEP was awarded.
- Have at least two (2) qualified references (see Section 2.2.2) who validate a combined minimum of 10 years SE experience. References should write their own statement of the applicant's experience; however, they may use the description verbatim from the application, as long as they make an independent statement asserting their agreement and provide some qualitative assessment of the experience they validate. They must be willing to participate in an oral review (typically not exceeding thirty minutes) in the English language by an ESEP evaluation panel if needed (the interview happens in Zoom).
- To ensure a sound systems engineering technical foundation, the systems engineering experience is to be in two-year or greater increments in at least six of the systems engineering experience areas defined further in CER-PROC-03. The increments need not be continuous.

- Have at least five (5) years of post-bachelor's degree professional development and/or leadership contributions to the systems engineering profession. Leadership is a position or function of going before, showing the way, leading, directing, managing, guiding, escorting, coaching, influencing, or directing others to follow. These years of development and/or leadership may be acquired concurrent with or in addition to the years of systems engineering experience.
- For INCOSE members, the ESEP certification is valid as long as the recipient maintains individual INCOSE membership. The actual certification will commence on the date that INCOSE issues the certification. Renewal is not required as long as INCOSE membership is maintained. For certified non-members, a Declaration of Continued Leadership & Professional Engagement is needed for renewal of ESEP certification at ten-year intervals.

### **2.2.6.2 Qualifying Professional Development AND Contribution to Systems Engineering Profession Activities for ESEP Candidates**

The following are descriptions for qualifying professional development *and* contribution to systems engineering profession activities for ESEP candidates.

Product Development Leadership Years – Years of leadership in a product development position, such as chief engineer or development team lead – one year earned for each year in a leadership position – no total limit.

Technical Society Leadership Years – Leadership in a professional technical society as elected officer or appointed committee chair – one-half year earned for each year of service – no total limit.

Advanced Academics Years – Limited to a maximum of four (4) years from advanced degrees and graduate-level teaching:

- Master's degree, or equivalent, in a qualifying field – one (1) year
- Doctor of Philosophy degree, or equivalent, in a qualifying field – two (2) years if separate credit is given for a master's degree; three (3) years if separate credit is not given for a Master's degree.
- Systems engineering graduate-level teaching – limited to a maximum of three (3) years. [One year of credit is earned for each five hundred (500) hours of classroom instruction spread over a three (3) year time period.]

## **2.3 Renewal and Late Renewal Requirements**

For a certification to remain valid, it must be renewed every 5 years for an ASEP, 3 years for a CSEP, and 10 years for ESEP. For a renewal application to be valid and processed, it must be dated no later than the expiration date of the current certification. For example, if the CSEP candidate received his or her certification on August 16, 2005, then his or her certification expires on August 15, 2008; and the renewal application must be dated no later than August 15, 2008.

ASEP and CSEP renewal requires confirmation of attaining 120 professional development units (PDUs) of continuing education and development requirements during the prior three (CSEP) or five (ASEP) years. Typically, one PDU is earned for each hour spent on a qualified educational activity. CER-PROC-04 defines possible sources of continuing education and development to earn the 120 professional development units required for certification renewal and provides further information about how to meet the continuing education and development requirements.

ESEP renewal requires different approaches to members and non-members. ESEPs who are INCOSE members will get their certificate automatically renewed every 10 years when membership is in good standing. Members who allow their membership to expire must pay the reactivation fee to renew their ESEP Certificate after reinstating membership. ESEPs who are non-members must submit a Declaration of Continued Leadership & Professional Engagement every 10 years.

For INCOSE members in general, if their membership lapses, their certification is not valid for that period, but certification will be reinstated for the remainder of the certification period upon renewal of their membership.

As shown in Table 2-1, renewal applications that are dated after the expiration of the current certification will be subject to additional PDUs and fees. ASEP or CSEP renewals greater than or equal to 12 months may opt to renew by passing the Knowledge Exam again.

Members				
<b>ASEP/CSEP members: \$100 renewal fee and 120 PDUs + the values below</b>				
	Credential	0–6 months late	> 6–12 months late	> 12 months late
(additional value on top of renewal fee)	ASEP / CSEP	\$50	\$100	\$150
(additional PDUs)	ASEP	12 PDUs	24 PDUs	24 PDUs per expired year
(additional PDUs)	CSEP	20 PDUs	40 PDUs	40 PDUs per expired year
<b>ESEP members: the values below in case of membership lapse</b>				
(value of fee)	ESEP	\$50	\$100	\$150

Non-Members				
ASEP/CSEP non-members: same as application fee + the values below				
	<b>Credential</b>	<b>0–6 months late</b>	<b>&gt; 6–12 months late</b>	<b>&gt; 12 months late</b>
(additional value on top of renewal fee)	ASEP / CSEP	\$50	\$100	\$150
(additional PDUs)	ASEP	12 PDUs	24 PDUs	24 PDUs per expired year
(additional PDUs)	CSEP	20 PDUs	40 PDUs	40 PDUs per expired year
ESEP non-members: \$500 renewal fee + the values below				
(additional value on top of renewal fee)	ESEP	\$50	\$100	\$150

**Table 2-1 Late Renewal Requirements**

All renewal and late renewal fees are listed on the INCOSE website.

Overall, late renewals will re-start the certification time window, with subsequent renewal deadlines based on that renewal date.

Application documents need not be resubmitted, and CARs will not reassess someone who had already previously been approved as an CSEP or ESEP during the renewal.

## 2.4 Requirements Summary

All the Systems Engineering Professional Certification requirements from CER-PROC-01 are summarized in Table 2-1.

REQUIREMENTS		ASEP	CSEP	ESEP	
<b>Knowledge</b>		Verified knowledge of SE Handbook content	Verified knowledge of SE Handbook content	Demonstrated application of SE concepts	
<b>Total Professional Level Experience Required</b>	<b>With Qualified Degree</b>	N/A	A minimum of 5 years SE experience	<b>Current CSEP</b> A minimum of 20 years SE experience	<b>Not Current CSEP</b> A minimum of 25 years SE experience
	<b>With Non-Qualifying Degree</b>	N/A	10 years of which a minimum of 5 years must be SE experience	N/A	N/A

	<b>With No Degree</b>	N/A	10 years of which a minimum of 5 years must be SE experience	N/A	N/A
<b>SE Experience Distribution</b>		N/A	At least 1 year in each of 3 or more experience areas	At least 2 years in each of 6 or more experience areas	
<b>References for Candidates</b>	<b>With Qualified Degree</b>	N/A	1 or more persons validating a combined minimum of 5 years SE experience	2 persons validating a combined minimum of 10 years SE experience; must be willing to be interviewed	
	<b>Without Qualified Degree</b>	N/A	1 or more persons validating a combined minimum of 10 years of experience of which a minimum of 5 years must be SE experience	2 persons validating a combined minimum of 10 years SE experience; must be willing to be interviewed	
<b>Leadership</b>		N/A	N/A	At least 5 years of leadership in experience areas, technical societies, or teaching (See application)	
<b>Renewal</b>		5 years	3 years	10 years	

*FOOTNOTES: \*- Membership is no longer a requirement, although highly encouraged, as of October 2025.*

**Table 2-2 Systems Engineering Professional Certification Requirements**

## 2.5 Certification Extensions

INCOSE has previously offered an extension to certification. Retired in 2013, the Acquisition extension was based on the US Defense Acquisition Guidebook, Chapter 4. The purpose of an extension is to measure a specific knowledge within or related to systems engineering. An acquisition may be related to a specific domain, such as US defense, or a specific type of systems engineering, such as system security. The format of the Acquisition extension was a one-hour (60-item) exam, which could only be taken by someone who had already passed the knowledge exam or been certified as an ESEP. It was anticipated that US defense contractors would want to participate in the Acquisition extension and that that interest would draw them into the INCOSE Certification Program. The considerations before approving another will be focused on the business case, but even prior to that there must be a published body of knowledge for the exam.

When evaluating the business case, the demand for a new extension plus the increase in demand for the core certification based on the addition of the new extension must meet or exceed the investment resources. Those resources include both financial costs for staff labor and contractors as well as demands on volunteer labor. Some of the fixed costs are those for exam creation and exam maintenance, while ongoing costs also exist related to marketing and mitigating confusion between the multiple exams.

## 2.6 Certification Equivalencies

INCOSE’s Certification Program seeks to identify and approve equivalent ways to meet the Certification Program requirements, especially as they reach a new audience not already engaged by the standard INCOSE Certification Program. The first equivalency, approved in 2011, is the SE-ZERT established in conjunction with the Gesellschaft für Systems Engineering (GfSE). Since then, MOAs with INCOSE UK and the Systems Engineering Society of Australia (SESA) have filled in the space between the standard process and a completely independent one like SEZERT. The US Department of Defense and university coursework also offer alternate paths.

	GfSE-SEZERT (Germany)	SESA CASE for CPEng (Australia)	US DoD DAU	Academic Equivalencies	Competency path(in development)	Corporate and Academic MOAs
<b>Work experience</b>	Confirmed by independent organization	Summary document	Summary document	Standard	Standard plus interview	Standard
<b>Verification of experience</b>	Confirmed by HR department	1 reference	Current supervisor signature	Standard	Modified forms plus interview	Standard, may be just 1 or 2 references
<b>Education</b>	Confirmed by independent organization	Qualifying degree confirmed by EA	Qualifying degree confirmed by US DoD	Standard	Standard	Standard
<b>Knowledge</b>	Coursework	Standard	Coursework	Coursework	Standard	Standard

**Table 2-3 Certification Equivalencies**

SE-ZERT is the most different path to INCOSE Certification, starting at Level C. The CAG has granted Level C as equivalent to INCOSE ASEP. Rather than taking the multiple choice INCOSE knowledge exam, SEZERT candidates take a systems engineering course that tests against the same learning objectives in a variety of ways, including classroom presentations, essays, and multiple-choice questions. SEZERT Levels B and A incorporate the German government files that describe employees’ education and work history, confirmed by their employers. Instead of rewriting this information, candidate work history is evaluated by an independent evaluation organization, which compares the documented experience and education against the requirements set by SEZERT and approved by INCOSE. The CAG has granted Level B as equivalent to CSEP.

The Australian path has no changes to the knowledge exam and includes a subset of CARs specially trained and assigned to do Australian reviews. The first phase of Certified Australian Systems Engineer (CASE) was the path from Chartered Professional Engineers to CSEP. All candidates have their CPEng already, which required they prove their engineering education and several years of engineering experience. They do not need to resubmit for their education or details about all of their experience. They must document a portion of experience and submit a partial reference for their experience, with all this documentation reviewed by CASE CARs.

The US Department of Defense path (also called the Defense Acquisition, or DAU path) is similar to CASE in allowing those already recognized by another accreditation to avoid repeating verification steps. Further, some DAU certification holders may bypass the knowledge exam.

Bypassing the exam is the sole feature of Academic Equivalencies (AcEqs). In these cases, Academic members of INCOSE’s Corporate Advisory Board (CAB) who assess SE knowledge in their students may apply to be an alternative to the knowledge exam. Once a university's AcEq is accepted, it periodically submits lists of students to INCOSE who have met the AcEq requirements

through their coursework. The Certification Office currently offers Academic Equivalency partnerships to Degree-Granting and Non-Degree-Granting programs from academic institutions.

## **2.7 Candidate Appeals**

A candidate can appeal the denial of his or her application for certification or the removal of his or her existing certification. The appeal is an appeal about the evaluation process, not an opportunity to submit additional evidence or material. Appeals are decided by the Certification Advisory Group.

In all denial cases, INCOSE will maintain privacy controls over the Certification information as per the INCOSE Policy on Confidential Information, including properly and securely disposing of all confidential and/or private certification information that comes into their possession.

## **3.0 Program Coordination and Changes**

Section 3.0 on program coordination and changes provides an overview on information privacy, certification knowledge providers, memoranda of agreement, and program changes.

### **3.1 Information Privacy**

INCOSE will maintain privacy controls over the Certification information as per the INCOSE Policy on Confidential Information.

INCOSE will maintain a list of the names, geographic areas (organization and unit, city, state, and country), and certification time periods of those recognized as Associate, Certified, and Expert System Engineering Professionals on its web site. No personal information will be published with the list of names. Information listed is that provided by candidates, who may update the information by emailing [certification@incose.net](mailto:certification@incose.net).

### **3.2 Dissemination of Information about the Certification Program**

Information abstracted from this document has been assembled on the INCOSE Certification web page and is periodically updated to provide the latest certification information to the public. The information selected is that judged to be of interest to an individual who may want to apply to become an Associate, Certified, or Expert Systems Engineering Professional.

### **3.3 Program Changes**

The Certification Program will do the right thing in fulfilling its commitments, including maintaining certifications and extensions for those who met criteria at the time of their certification. This has been demonstrated twice when significant program changes were made. When the Acquisition extension was retired, all current –Acq’s were allowed to keep their certification. When individual membership became a requirement at the CSEP level, current CSEPs were not required to join INCOSE to maintain their certifications.

The Certification Program will try to give at least six months’ notice of major changes. When the exam body of knowledge changes, there will typically be a one-year notice of intent to change, along with at least six months’ notice of the exact date of the transition. Similarly, old versions of application forms are allowed to be used for 12 months after new forms are released. The Certification Program Office recognizes that many candidates spend multiple months preparing their application forms and studying for the exam, and there is no intent to disrupt that through changes to the Certification Program documentation requirements.