

# FORM 2B - INSTRUCTIONS FOR COMPLETING FORM 1B (APPLICATION FOR INCOSE CSEP - STREAMLINED)

## General Instructions

1. An electronic submission via the INCOSE website is preferred. You must be an individual INCOSE member to apply, and you must log in to the INCOSE website to upload your application. If you would like help submitting your application materials, please email [certification@incose.org](mailto:certification@incose.org) for advice.
2. The individual application form was created using Adobe Live Cycle Designer and works well with the free versions of Adobe Reader. It will not work well with Adobe Acrobat or the Apple Preview viewer of PDFs. Using Adobe Reader, you will be able to edit, save, and print the application form.
3. The non-refundable fees in United States dollars that must accompany certification applications are listed on the INCOSE Certification web site at:  
<https://www.incose.org/systems-engineering-certification/the-certification-process/how-much-does-it-cost>  
The application will be processed after the fee is received. Payment is preferred through the INCOSE website. Help with payment may be obtained by emailing [certification@incose.org](mailto:certification@incose.org)  
**You have one year from the date of your application and payment to complete the entire certification process.**  
The applicant is responsible for any delays in application or reference submittals, delays due to incomplete or insufficient information, and successfully passing the examination. Failure to do so will result in your application for certification being denied and your fees will not be refunded.
4. **All supporting documentation and information must be received before an application is considered complete.** If the application is incomplete or one of your items is missing, you will be notified of the corrective actions that you must take. If you are requested to submit additional information, you will have three months from the time of notification to provide this additional information. Failure to do so will result in your application for certification being denied and your fees will not be refunded.

## Section 1: General Information

Name: Given (First) Name(s), Family Name (Surname), and Middle Initial

Current e-mail address

## Section 2: Experience

Describe in detail your role in leading/performing systems engineering tasks, the products produced, and the duration of your efforts in producing those products. The Certification Application Review Team makes its assessments based on the information provided in the application and is looking for your direct contributions to a work effort. For example:

- Identify and describe the products or services for which SE was applied.
- Describe the sub-level activities performed in SE experience areas, such as what parts of requirements engineering were done – requirements elicitation, definition, decomposition, allocation, control, management, etc. It is too vague to just state “I worked on requirements for the system.”

Describe your qualifications in more detail than just saying that you were involved with an effort, led an effort, or contributed to an effort. Simply stating a job title or position is not a description of experience. Non-technical roles/tasks in program management, resource management and business development are not regarded as SE functions and do not count as appropriate experience. Also, describe additional years of engineering experience required due to your educational situation. Applications with insufficient detail may result in denial.

A Certified Systems Engineering Professional must have a demonstrated breadth and depth of systems engineering experience. In order to ensure a sound systems engineering technical foundation, the systems engineering experience documented in the application needs to include one-year or greater increments in at least three of the following areas of systems engineering. These areas are further defined in Attachment A:

- Requirements Engineering
- System and Decision Analysis
- Architecture/ Design Development
- Systems Integration
- Verification and Validation
- System Operation and Maintenance
- Technical Planning
- Technical Monitoring and Control
- Acquisition and Supply
- Information and Configuration Management
- Risk and Opportunity Management
- Lifecycle Process Definition and Management
- Specialty Engineering
- Organizational Project Enabling Activities
- Other

### **Section 3: Affidavit**

Read, check, sign, and date your decision on accepting the affidavit. Your typed name is accepted as a signature on an electronically submitted application.

You must sign the affidavit to have your application processed.

### **Section 4: Reference**

Your supervisor should type his or her name in this field to indicate concurrence with your statements. You or your supervisor should insert his or her email address below that signature. INCOSE does not routinely contact supervisors but may do so with any questions about your application.

## Attachment A - Experience Applicable for Certification

Applicants for certification as a Certified Systems Engineering Professional or Expert Systems Engineering Professional are required to submit evidence of systems engineering experience in addition to having a qualifying degree.

Experience to satisfy the minimum requirements for initial certification includes performing systems engineering technical activities, but does not include time spent in receiving a technical education.

Systems engineering technical activities include but are not limited to those identified in the table below. For further information and for detail on typical tasks associated with each activity, please refer to the INCOSE Systems Engineering Handbook (V4.0):

Systems Engineering Experience Area:	Principle SE Activities associated with the SE experience area
<b>Requirements Engineering</b>	Preparing for or managing a Business or Mission analysis; Defining a Problem or opportunity space; Characterizing a solution space; Evaluating alternative solution classes; Preparing for Stakeholder Needs & Requirements Definition; Defining stakeholder needs; Developing Operational Concept and other Life Cycle concepts; Transforming needs into stakeholder requirements; Analyzing Stakeholder Requirements; Managing Stakeholder needs and requirements definition; Preparing for System Requirements Definition; Defining System Requirements; Analyzing System Requirements; Managing System Requirements.
<b>System and Decision Analysis</b>	Preparing, performing and managing a system analysis; Decision Management, including Preparing for System Engineering Decisions; Analyzing decision information; Making and managing SE decisions.
<b>Architecture/ Design Development</b>	Preparing for architecture definition; Developing architecture viewpoints; Developing models and views of candidate architectures; Relating architecture to design; Assessing candidate architectures; Managing the selected architecture; Preparing for design definition; Assessing alternatives for obtaining system elements; Establishing design characteristics and design enablers; Managing a system design;
<b>Systems Integration</b>	Preparing, performing and managing system element implementation; Identifying, agreeing and managing system-level interfaces; Preparing and performing Integration; Managing integration results.
<b>Verification and Validation</b>	Preparing and performing Verification; Managing verification results; Preparing and performing Validation; Managing Validation results; Preparing for, and performing System Transition; Managing results of System Transition; Obtaining Qualification, Certification and Acceptance.
<b>System Operation and Maintenance</b>	Preparing for Operation; Managing results of Operation; Performing and supporting System/Product Operation; Preparing for and performing Maintenance; Performing Logistics Support; Managing results of maintenance and logistics; Preparing for, performing and finalizing system disposal.
<b>Technical Planning</b>	Defining an SE project; Planning an SE project and its technical management; Activating an SE project; Identifying and recording tailoring influences and mandated structures; Obtaining input from parties affected by the tailoring strategy; Making Tailoring decisions and selecting life cycle processes.
<b>Technical Monitoring and Control</b>	Planning for SE project assessment and control; Assessing SE projects; Controlling projects from an SE perspective; Preparing for and performing System Measurement; Preparing for system Quality Assurance; Performing system product or service evaluations;
<b>Acquisition and Supply</b>	Acquisition, including: Preparing for system/element acquisition; Advertising the acquisition and selecting the supplier; Establishing, maintaining and monitoring an acquisition agreement; Accepting a product or service from a supplier; Supply, including: Preparing for supply; Responding to a tender; Establishing, maintaining and executing a supply agreement; Delivering and supporting a product or service.

<b>Information and Configuration Management</b>	Planning Configuration Management; Performing Configuration Identification; Performing Configuration Change Management; Performing Configuration Status Accounting; Performing Configuration Evaluation; Performing Release Control; Information Management, including Preparing for and performing information management.
<b>Risk and Opportunity Management</b>	Planning technical risk and opportunity management; Managing the technical risk profile; Analyzing, Treating and Monitoring technical risks and opportunities
<b>Lifecycle Process Definition and Management</b>	Establishing Lifecycle Processes including defining and implementing Lifecycle Models; Assessing Lifecycle Processes and Models; Improving Lifecycle Processes and Models.
<b>Specialty Engineering</b>	Performing <u>professional-level</u> systems engineering activities associated with one or more Specialty Engineering area(s). Typical Specialty Engineering areas include but are not limited to those identified in the INCOSE SE Handbook V4.0, namely: Affordability/Cost-Effectiveness/Life Cycle Cost analysis; Electromagnetic Compatibility Analysis; Environmental Engineering/Impact Analysis; Interoperability Analysis; Logistics Engineering; Manufacturing and Produceability Analysis; Mass Properties Engineering; Reliability, Availability and Maintainability analysis; Resilience Engineering; System Safety Engineering; System Security Engineering; Training Needs Analysis; Usability Analysis/Human Systems Integration; Value Engineering.
<b>Organizational Project Enabling Activities</b>	Infrastructure Management, including establishing and maintaining the Infrastructure; HR Management, including identifying and developing SE Skills, acquiring and providing SE skills for projects; Quality Management including planning and assessing Quality Management, Performing Quality Management corrective and preventative actions; Knowledge Management, including Planning Knowledge Management, Sharing Knowledge and skills throughout the organization, Managing Knowledge, skills and knowledge assets; Project Portfolio Management at Organizational level, including defining and authorizing SE projects, evaluating a portfolio of SE projects and terminating SE projects.
<b>Other</b>	Other functions and activities performed that you can justify as Systems Engineering activities.

Certification at CSEP level will indicate that the individual has a balance between the *depth* and *breadth* of SE experience in performing some, but not all, of the SE activities identified above.

Applicants lacking a qualifying degree, but with a non-qualifying Bachelor's degree, are required to submit an additional five (5) years of engineering experience; whilst those without any Bachelor's degree must submit an additional ten (10) years of engineering experience in lieu of a qualifying degree.

Note that the additional years of engineering experience required to compensate for lack of a qualifying degree may be in any engineering field, not just systems engineering.