

#### **PILOT CANDIDATES**

We are excited to announce the pilot testing phase of the Systems Software Integrator (SSI) certification program. As a pilot tester, you will have the unique opportunity to be among the first to take our cutting-edge certification exam and help shape the future of the program.

Pilot testing is a crucial stage in the development of a certification program. Input and performance of pilot testers is used to validate exam content and scoring to ensure that the program meets the highest standards of quality and reliability.

# **Benefits of Participating:**

- 1. **Reduced Application Fee:** Pilot testers will enjoy a significantly reduced application fee of \$75, compared to the regular fee of \$490.
- 2. **Help Develop Industry Standards:** By participating in the pilot program, you are contributing to the establishment of an industry standard.
- 3. **Early Adoption:** Those who pass the pilot exam will become a member of the first group to obtain SSI certification, demonstrating your expertise and commitment to professional growth.

# **Important Note on Pilot Testing:**

**TESTING WINDOW:** The testing window will run through December 31, 2025 or until we reach 100 test takers. Once your application is approved, you are encouraged to schedule your exam right away because exam appointments can be limited in some areas. Note: remote proctoring is unavailable for this exam.

**RESULTS:** As a pilot tester, you will not receive your exam results immediately. The pilot testing process includes a thorough analysis of all candidate performance and feedback, which takes additional time. Results will be communicated once the analysis is complete and the final exam is validated. This process will take an estimated three months from the completion of the pilot administration.

**EXAM PREP:** Certification exams are designed to assess your competency based on your current knowledge and ability. Exam prep courses and practice exams can be helpful in reinforcing content but are not necessary to succeed on the exam. A practice exam for the SSI exam is now available.

Join us in this exciting pilot testing phase and play a vital role in the development of a premier certification program. Your participation is not only a step forward in your professional journey, but also a significant contribution to the broader software engineering community.



# CANDIDATE HANDBOOK

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The clipboard with checkmarks icon indicates important information concerning completing the application.



The hand icon indicates tips to avoid common application issues that could cause unnecessary delays.



Information provided in this candidate handbook is intended to help you through the certification process. However, certification requirements, exam content, fees, processes, procedures, etc. are subject to change at any time. Please visit www.nicet.org for the most up-to-date information.

#### **About NICET**

NICET (National Institute for Certification in Engineering Technologies) is a not-for-profit organization created by the National Society of Professional Engineers (NSPE) to promote excellence in engineering technologies through certification and related services.

NICET's mission is to provide an independent evaluation of technical knowledge and experience among those working in the fields of engineering technology through certification; define and support career paths for engineering technologists and related disciplines; and ensure recognition of and continued professional development for certified individuals.

#### The Value of Certification

A high-quality certification validates an individual's knowledge, skills, and abilities in a defined profession, occupation, skill, or role. Certified individuals in the workforce reduce risk and enhance consumer protection and public safety. In addition, these certifications allow employers and other stakeholders to identify individuals with the competencies needed to perform a role or task.

### **Purpose**

This certification program is designed for professionals engaged in the integration of software into physical systems. Areas covered include program management, quality assurance, systems integration, and risk mitigation. Technical areas covered include document/data management, version control, requirements specification, validation & verification, care & custody control, cybersecurity postures, and functional safety.

# **General Requirements for Certification**



Successful candidates must complete a work history description that documents and meets specific industry related experience and pass an exam. Once earned, certification must be maintained through Continuing Professional Development (CPD) and recertified every three years.

#### **Terms and Definitions**



#### **Work History**

A complete and detailed record of employment history with dates, employers, locations, positions held, status, supervisors, and work performed. All work activities, regardless of relevance to the certification, should be included.

Requirements for Systems Software Integrator certification includes the following:

3 YEARS of EXPERIENCE with a Bachelor's Degree or higher

OR

6 YEARS of EXPERIENCE with a High School Diploma, GED or Associate's Degree



**Transcripts for Bachelor's Degree** 

To verify a bachelor's degree or higher, an official transcript must be submitted by your school directly to NICET at ssi@nicet.org.

Work experience is measured against certification requirements. Each person who signs a NICET application grants NICET permission to contact the individuals named in the application materials or other communications with NICET to confirm the accuracy of information provided by the applicant.

When needed and in situations of conflict or discrepancy, a supervisor of record may be requested by NICET to clarify claims or resolve inconsistencies in the candidate's documented work history submittals.



First-time applicants: For the span of your entire career, add and complete an entry for each position held at each employer and for any period within a given position in which your responsibilities changed significantly.

This section requires a detailed description of how your work aligns with each of the four SSI Competency Domains. The detailed description should be a summary in your own words of the work you performed.

The description, at a minimum, should include:

- Specific duties performed per your position/title
- Details about the technical and supervisory nature of the work
- Specific tests that you have performed
- Examples of project types that you have worked on as related to content domains



Please note that copying the same description for each domain, position, or employer is not acceptable. While various positions may perform similar functions, each requires descriptions of specific duties and tasks performed in different roles and/or with different employers.



#### **Work History Format and Examples**

As a [Position/Title], I performed the following duties relating to [managing, designing, installing, testing, updating] [project or product]. This included [supervisory positions].

In performing my duties, I worked on [examples of project <u>types</u>], [typical equipment, systems, and components], [specific tests performed].



#### **Examinations**

Exams are administered on a computer at a proctored test center managed by a test administration company.

You will be required to sign an NDA (Non-Disclosure Agreement) to begin your exam. Failure to accept will result in a failed score and fees will be forfeited. The NDA is as follows:

"You must accept the Non-Disclosure Agreement (NDA) in order to take this exam. I understand that NICET tests and test questions are owned and copyrighted by NICET and affirm that I will not share the content of any NICET examination with any other person. I acknowledge that divulging the contents of this examination to others in any manner is expressly forbidden and may subject me to sanctions."

Each test session begins with a tutorial allowing you to get used to the process. During the test, you will see one question at a time, but can move forward or backward to view or review other questions. Some questions include a graphic or document that can be viewed by clicking on the Exhibit button. Exhibits may be in color. Answer options are selected by clicking the boxes next to the answers. In a few questions, you may be presented with a picture and asked to click on the part of the picture that correctly answers the question. Questions may have more than one correct answer, but in those cases, you will be told how many answer options are required. You will receive an unofficial score report at the conclusion of your test session.

Both a basic calculator and a scientific calculator are built into the exam. Candidates **may not** bring any personal calculators into the testing room.

Exams are only offered in English.

Once you have passed the examination you will granted certification.

#### SYSTEMS SOFTWARE INTEGRATOR REQUIREMENTS AND INFORMATION

Candidates for NICET certification as Systems Software Integrators are able to implement designs, integrate components, and deploy software systems into a complete and secure system. They are skilled in risk mitigation, quality assurance, program management, and system integration.

## **SSI Work History Requirement:**

Work experience must include tasks related to systems software integration. Relevant work experience must amount to at least:

- 3 years with a Bachelor's degree OR
- 6 years with a High School Diploma, GED or Associate's Degree

On your application, you will complete an entry for each position held at each employer during your career. Work described should align with the SSI content outline, which can be downloaded <a href="here">here</a>. Each entry must include a description of how your job responsibilities align with each of the four SSI competency domains - Program Management, Quality Assurance, Systems Integration, Risk Mitigation.



Exam Requirement		
Content Domain	% of Examination	
Program Management: Manage documentation and project timelines, estimate projected costs, coordinate resources, commission integrated systems, maintain version control, and identify project requirements and specifications.	31-38%	
Quality Assurance: Develop and execute test plans, validate environment configurations, and manage deliverables.	17-20%	
System Integration: Integrate components, determine relevant frameworks, determine care, custody, and control processes, and design systems engineering.	16-20%	
Risk Mitigation: Analyze and mitigate risk, evaluate vendors, determine functional safety, manage stakeholder risk, evaluate cybersecurity postures, and engage in continuous improvement and modifications.	26-32%	
Number of Questions	Duration	
125	135 minutes	
Application Fee \$490		



#### Recertification

To protect the public's interests and promote your stature on the engineering team, NICET encourages and requires professional advancement through recertification.

Certification is valid for three years and requires that you earn Continuing Professional Development (CPD) points to recertify. Once you are certified, you should begin tracking CPD activities according to a pre-established point scale. At the end of the three-year certification period, you must demonstrate your professional growth by documenting 90 CPD points for each certification.



CPD Category	Maximum points per 3-year certification period
Active Practitioner	72 (up to 24 per year)
Additional Education	72
Advance Profession	45
Certification Activity	90
Special Exam	45

CPD points are divided among five categories, and your CPD points must be derived from two or more of these categories. Each category has a maximum number of points that may be counted towards recertification.

#### **CREATING AN ONLINE ACCOUNT**

# **Existing Customers**

If you have applied, tested, been certified, or even just created an account with your mail and password, we most likely have a record. It is always best to use an existing account.

Go to <u>our login page</u> to login using your email and password. If you don't remember your password, use the Reset Password function to receive instructions by email. If you don't know or no longer have access to the email account in your record, please <u>contact us.</u>

#### **New Customers**

Go to <u>our registration page</u> and complete the form to create a new account.



#### SUBMITTING AN APPLICATION

# **Application Cards and Purchasing Exams**

Once you have logged in to your NICET account, the first step is to add an "application card" to your home screen. Click "Apply" in the navigation bar to see the cards for every certification NICET offers. You may use the search to narrow down the selection or page through to find the certification(s) you are seeking. Click the green "Save to Home" button.



- 1. The Application Card now resides on your home screen.
- 2. To purchase the exam, click the exam name on the left side of the Application Card.
- 3. To start the experience section of the application, click the blue "Apply Here" button.

#### **Education Validation**

- Candidates with three years of experience and a bachelor's degree must have transcripts\* sent directly to NICET from the issuing college or university. Please send transcripts to ssi@nicet.org.
- For candidates with six years of experience and a high school diploma, GED, or Associate's degree, transcripts are not required.



\*The candidate's name, as it appears on the SSI application, must match the name on the transcripts or must be accompanied by evidence of legal name change, such as a marriage license.

# **Work History**

First-time applicants (and those specifically directed to do so by NICET): For the span of your entire career, add and complete an entry (Click "+Add") for each position held with each employer and for any period within a given position in which your responsibilities changed significantly.

Returning applicants and those wanting to document Active Practitioner points toward recertification: Follow the instructions above solely for the period of time from the end date of your last work history submittal to the date you submit a new application.

Use the "+" button to break your experience down into all applicable technical areas in which you have worked for each time period.

You must document work history in each of the four domains. The detailed description should be a summary in your own words of the work you performed.

Each person who signs a NICET application grants NICET permission to contact individuals named in application materials or other communications with NICET to confirm the accuracy of information provided by the applicant.

# **Finalize**

Once you have completed your application, you will need to read the final instructions, agree to the affidavit, click "Finalize," and submit payment. This indicates to NICET staff that your submission is ready for review. Once you click "Finalize", your submission must not be altered unless requested by NICET. After transcripts (if applicable) are received and the work experience reviewed and application approved, you will be notified via email how to schedule the examination.

#### TRAINING AND PREPARING FOR THE EXAMINATIONS

Good training teaches the knowledge and skills needed to perform well on the job. We recognize that training comes in many forms, companies and agencies have different resources, and individuals have different learning styles. NICET does not prescribe any one specific training course, school, or provider and allows customers to choose the training that works best for them. Training and professional certification are vital for developing a qualified workforce.

#### **Practice Tests**

The Systems Software Integrator program provides an <u>online practice test</u> to help you get familiar with the content and exam interface. While we do provide feedback at the end with the percentage of correct questions in each section, performance on the practice test is not necessarily an accurate predictor of how you will perform on the certification exam.

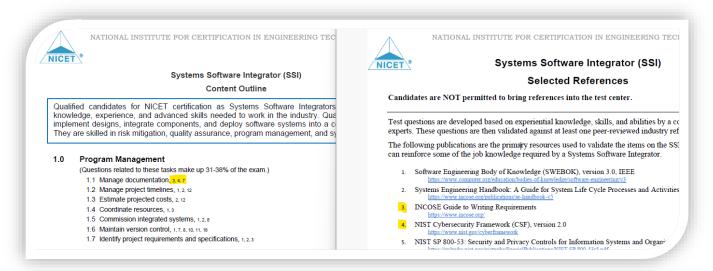
# **Recognized Training Providers**

NICET has agreements with industry associations, colleges, technical schools, and training companies. The listing is intended to help you find training that works best for you. NICET does not review, monitor, or endorse training programs and materials. For more information, visit our training providers page.



#### **Selected General References**

These are lists of resources that candidates might find helpful in developing the knowledge for that level of certification. (No particular books, training, or education programs are required or endorsed for certification.) Selected General References are found on each program page under Reference Materials.



This image shows how the references map to the content outline. This same system of mapping the reference list to the content outline applies to all NICET certification exams with similar formatting.

#### **ADDITIONAL EXAMINATION INFORMATION**

# **Testing Window**

During the application process, applicants choose a six-month window during which they will take their exams. The window allows for flexibility to schedule a convenient test date. For pilot candidates the exam should be scheduled by December 31, 2024.

# Scheduling the Examination

Once payment is processed and the application has been approved, candidates can schedule the examination. Candidates will use their NICET portal to schedule the exam time and location at a Pearson VUE testing center.

#### **Examination Administration**

Pearson VUE has numerous testing centers across the country where Systems Software Integrator candidates can take their examinations. See below for details on each option.

# **Examination Testing Center Requirements and Instructions**

Candidates are asked to arrive at the test center 30 minutes before the scheduled appointment time. This will give you adequate time to complete the necessary sign-in procedures, which include providing identification documents.

You are required to present two forms of original (no photocopies), valid (unexpired) IDs. One must be a primary ID (with name, photo, and signature), such as a driver's license or passport, and one must be a secondary ID (with name and signature), such as a credit card. The first and last name that you used to register must match exactly with the first and last name on the ID that is presented on test day. Digital IDs are not acceptable at Pearson VUE testing centers. All required IDs must be issued by the country in which you are testing. If you do not have the qualifying ID issued from the country you are testing in, a passport from your country of citizenship is required, along with a secondary ID. If you have any questions or concerns about the IDs that you are required to bring with you to the testing center for admittance to your exam, please contact Pearson VUE customer service.

You will not be allowed to take any personal items with you into the testing room. This includes all bags, resources or books not authorized by the testing program, notes, cell phones, pagers, watches, and wallets. Pearson VUE testing centers provide with which lockers to store your personal items.

If you arrive more than 15 minutes late for an exam and are refused admission, the testing fee is forfeited. You will have to request re-authorization and may have to pay an additional fee.

# **Special Accommodations for the Examination**

It is NICET's policy to comply with Title III of the Americans with Disabilities Act (ADA). NICET will offer examinations in a place and manner accessible to persons with qualifying disabilities or offer alternative accessible arrangements for such individuals, where feasible.

Candidates must submit requests for accommodations to NICET at test@nicet.org and all requests must be approved at least 10 business days before the scheduled exam date.

To qualify for testing accommodation under the ADA, you must demonstrate that you have a qualifying disability that necessitates the provision of testing accommodation.

A disability is defined by the ADA as a physical or mental impairment that substantially limits one or more major life activities, as compared to most people in the general population.

# **Examination Score Report**

Candidates are notified immediately regarding pass/fail status upon completion of the examination. An official score report will be available to candidates in the Pearson VUE portal within 14 days following completion of the examination.

Candidates who do not receive a passing score will receive a scaled score for the exam indicating the percent correct for each domain or section.

# Rescheduling/Cancellation Policy for Examination

Rescheduling more than 24 hours before your exam date is complimentary in the same testing window. Please contact Pearson VUE.

Within 24 hours after your scheduled date or for a new testing window, there is an additional fee equal to one half of the original testing fee. For more information on rescheduling, click here.

Rescheduling the NICET exam has never been easier, and in most cases, does not incur any additional fees. Additional fees may apply if rescheduling is attempted within 24 hours of the appointment time, the eligibility window expires, or there is less than 24 hours until the eligibility expires.

The best way to reschedule your exam is to login to your NICET account and click "Schedule" in the left side navigation, then "Schedule with Pearson VUE" for the exam you want to reschedule.

You will not be eligible for a refund if you cancel your examination once an examination has been scheduled.

#### Reexamination

If you do not pass the Systems Software Integrator examination, you can pay the exam fee and then reschedule the examination after a 30-day period has elapsed. Testing is limited to a maximum of three attempts in any 12-month span. After the third attempt, candidates must wait 6 months before retesting again.

#### CANDIDATE APPEALS AND COMPLAINTS

NICET certification is granted when the applicant for certification has demonstrated, through examination and submission of qualifications, the knowledge and skills required to properly function in a capacity relevant to the certification.

#### **Candidate Appeals Process**

An appeal is a formal request for special consideration made by the NICET Board of Governors or its representative related to an individual's achievement or retention of a certification.

An appeal must be submitted electronically to test@nicet.org with the word "Appeal" included in the subject header. The appeal must be submitted no later than 30 calendar days after notification by NICET of the adverse decision.

An appeal must include:

- Name and email address of the appellant;
- A description of why the appeal should be granted;
- Name of the certification; and
- All relevant documentation that supports the appeal.

We will acknowledge your appeal in writing within 10 business days of receipt.

Written notice of the Appeals Panel's determination (Appeal Denied or Appeal Approved) or a progress notice (Appeal Forwarded or Appeal Delayed) will be provided to the appellant within 10 business days of the determination.

If applicable, appeals are sent to an independent Appeals Team (a three-member team pulled from the Appeals Panel) for consideration. The appeal will be considered no later than 90 calendar days after the appeal receipt.

Written notice of the Appeals Team's determination (Appeal Denied or Appeal Approved) or a progress notice (Appeal Delayed) will be provided to the appellant within 10 business days of the determination.

# **Candidate Complaints Process**

Individuals with concerns regarding the certification program materials, personnel, or activities are encouraged to discuss these with the individuals involved to try to resolve the matter informally. In some cases, however, informal resolution is not possible, and individuals may wish to file a formal complaint.

A formal complaint must be submitted electronically to test@nicet.org with the word "Complaint" in the subject header within 90 calendar days of the incident's occurrence.

The following are the types of complaints accepted and possible actions.

**Type I.** Complaints pertaining to an applicant's or certificant's qualifications for a particular certification. These complaints shall pertain to examination misconduct; false, incomplete, or misleading application information; improper work performance verification; or a false or misleading personal recommendation. Possible actions may include temporary suspension or permanent revocation of certification(s).

**Type II.** Complaints pertaining to violations of the NICET Code of Ethics by an applicant or a certificant. Possible actions may include reprimand, temporary suspension of testing privileges or certification(s), or permanent revocation of testing privileges or certification(s).

**Type III.** Complaints pertaining to an applicant's or certificant's improper execution of the technical practices that are an integral part of the certification. Possible actions may include reprimand, withholding certification, temporary suspension of certification(s), or permanent revocation of certification(s).

**Type IV.** Complaints pertaining to an individual's representation that he or she holds a valid NICET certification. Possible actions may include sending a letter to the individual stating that NICET has no records of their certification. If NICET records show that the individual's certification has expired, the letter will include:

- 1. The date of expiration;
- 2. The reason for expiration; and
- 3. What the individual is required to do to obtain a valid certification.

If a preliminary investigation of the information/evidence reveals a valid complaint, the individual(s) named in the written complaint will be sent a "Notice of Complaint." The NICET Board of Governors will also request any additional information needed and a specific timeframe for providing such information. If this additional information is not received, a decision will be made based on the information initially provided.

If it is determined that no further action is warranted, the complainant will be advised in writing of the outcome of the initial assessment within 30–45 days after receipt of the complaint.

#### **CERTIFICATION FAIRNESS POLICIES**

#### **Nondiscrimination**

NICET adheres to the principles of fairness and due process and endorses the principles of equal opportunity. NICET certification programs will not discriminate or deny opportunity to anyone on the grounds of age, race, religion, gender, sexual orientation, gender identity, national origin, veteran status, or disability.

It is critical that an equal opportunity is provided to every individual and that no person or group is given special treatment in the granting of any credential.

#### **Accommodations**

It is NICET's policy to comply with Title III of the American with Disabilities Act (ADA). NICET will offer examinations in a place and manner accessible to persons with qualifying disabilities or offer alternative accessible arrangements for such individuals, where possible.

# **Impartiality**

NICET's leadership and management, including the NICET Board of Governors, endorses the principles of impartiality and equal opportunity, and commits to act impartially and equitably in relation to its applicants, candidates, and certificants, including but not limited to 1) applying its standards and requirements for examinations and certifications equally to all individuals regardless of age, race, religion, gender, sexual orientation, gender identity, national origin, veteran status, or disability, 2) implementing its policies and procedures impartially and fairly, 3) not restricting certification based on undue financial or other limiting conditions, and 4) not allowing commercial, financial, or other pressures to compromise impartiality in certification activities.

## **Conflict of Interest**

A conflict of interest may be defined as an interest that might affect, or might reasonably appear likely to affect, the judgement or conduct of an individual associated with the NICET Board of Governors, any staff member, contractor, or volunteer.

NICET will identify threats to impartiality related to its certification program(s). These analyses will consider at a minimum:

- Potential threats from its activities, its related bodies, its relationships with other entities, and the relationships of its personnel to other individuals or entities
- Commercial, financial, or other influences that pose potential threats
- Potential or real conflicts of interest of NICET Board of Governors members, panel members, staff, and contractors
- Balanced involvement of interested parties in certification activities,
  especially representation on the NICET Board of Governors and its panels
- Independence of NICET training activities from certification activities
- Changes in personnel involved with certification activities, organization structure, the certification schemes, certification policy, relationships with other entities, and contracts/agreements related to certification activities

#### **SECURITY POLICIES**

# **Privacy and Confidentiality**

NICET will hold in confidence and in a secure manner the information obtained over the course of certification program activities at all levels of the organization, including activities of all personnel (paid, contracted, or volunteer) acting on its behalf. All candidate information will be considered confidential.

# **Exam Security**

NICET will safeguard all examination materials over the course of certification program activities at all levels of the organization, including all personnel (staff, volunteers, and contractors) acting on its behalf. NICET will take proactive measures to prevent fraudulent examination practices, including but not limited to the following:

 Upon registering for an examination site, just prior to the start of the exam, candidates are required to sign an agreement indicating their commitment to not release confidential materials or participate in fraudulent test-taking practices

- Examination personnel will confirm the identity of the candidate upon checkin
- A proctor will be present during the examination
- The proctor will take measures to prevent the use of unauthorized aids in the examination area
- NICET's testing agency will monitor the examination results for indications of cheating

#### **Records Control**

NICET will restrict access to the certification records to only those personnel requiring access to accomplish certification-related duties.

Electronic copies of records will be archived according to the records control schedule. Printed copies of records that are scanned to be stored electronically will be shredded. The documents/records will be held in a secure location if they contain information that must be protected.

# PROFESSIONAL CONDUCT POLICIES

#### **Code of Ethics**

NICET-certified engineering technicians and technologists recognize that the services they render have a significant impact on the quality of life for everyone. As they perform their duties and responsibilities on behalf of the public, employers, and clients, they shall demonstrate personal integrity and competence. Accordingly, certificants shall:

- 1. Have due regard for the physical environment and for public safety, health, and well-being. If their judgment is overruled under circumstances where the safety, health, property, or welfare of the public may be endangered, they shall notify their employer, client, and such other authority as may be appropriate. An employee shall initially express those concerns to the employer.
- 2. Undertake only those assignments for which they are competent by way of their education, training, and experience.
- 3. Perform their duties in an efficient and competent manner with fidelity and honesty.
- 4. Admit and accept their own errors when proven wrong and never distort nor alter the facts in an attempt to justify their decisions.
- 5. Avoid conflicts of interest whenever possible. When unavoidable, they shall disclose to their employer or client, in writing, any action that might create the appearance of a conflict of interest.
- 6. Avoid receiving and granting bribery in all its forms.

- 7. Strive to maintain their proficiency by updating their technical knowledge and skills in engineering technology.
- 8. Not misrepresent or permit misrepresentation of their own or their associate's academic or professional qualifications nor exaggerate their degree of responsibility for any work.
- 9. Not reveal facts, data, or information obtained in connection with services rendered without prior consent of the client or employer except as authorized by law.