

CANDIDATE HANDBOOK

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

GENERAL INFORMATION



Information provided in this candidate handbook is intended to help you through the certification process. However, certification requirements, exam content, fees, process, procedure, 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 for engineering technicians engaged in the design and layout, and installation and maintenance, of in-building public safety communication systems. Technical areas covered include knowledge of ERCES, radio frequency theory, equipment mounting requirements, delivered audio quality scale, business software and mathematics, communications using project specifications and documents, site survey data and design tools, and interpretation and evaluation of surveys. The program has a three-level technician

installation track and a one-level Design track that may be used independently or together to establish minimum qualifications for appropriate roles.

General Requirements for Certification

GENERAL REQUIREMENTS FOR CERTIFICATION



Successful candidates must pass an exam or exams, complete a work history description that documents and meets specific industry related experience, successfully perform key role-specific activities, and obtain a personal recommendation (Levels III and Design). Once earned, certification must be maintained through Continuing Professional Development (CPD) and recertified every three years.

Requirements for higher levels of certification include meeting all lower-level requirements.

Terms and Definitions



Examinations

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



Level I exams are also offered in an online proctored format called OnVUE. The option to choose taking your exam online or at a test center is presented during exam scheduling.

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."



References that are allowed to be used during the exam are listed on the complete <u>References</u> page.

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 be viewed by clicking on the Exhibit button. Exhibits may be in color. Answer options are selected by clicking on the appropriate circles or 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 additional calculators into the testing room.

Exams are only offered in English.



Work History (all levels)

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.



First-time applicants (and those specifically directed to do so by NICET): 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.

Returning applicants (those seeking certification at higher levels and additional subfields) 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 that you submit a new application. If you have previously submitted paper, PDF, scanned, etc. documents and do not know the date of your last submission, contact NICET.

This section contains three pieces per entry: the Subfield/Technical Area (S/TA) selection, the percentage allocation, and the detailed description. 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
- Typical equipment, systems, and components that you have sold, designed, installed, tested, inspected, and/or maintained
- Specific calculations and layouts
- Specific tests and inspections that you have performed

Typical project types that you have worked on



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



Work History Format and Examples

As a [Position/Title], I performed the following duties relating to [selling, designing, installing, testing, inspecting, and/or maintaining] [sub-field systems]. This included [supervisory positions]. (For LEVEL III – include managerial roles per certification requirements.)

In the performance of my duties, I worked on [examples of project <u>types</u>], [typical equipment, systems, and components], [technical nature/specific calculations and layouts], [specific tests and inspections you have performed].



Performance Measures (all levels)

A set of activities that a supervisor or someone in a supervisory capacity must verify that the candidate has performed satisfactorily. This section of the application must be completed by the verifier.

Verifier

A current or previous supervisor as listed in the candidate's documented work history. The verifier does not have to be certified by NICET, but must be a responsible and technically competent individual who is, or was, in a position and have the authority to directly supervise, inspect, and/or approve the applicant's work and verify that the candidate has demonstrated the required competencies, specific accomplishments, and project work related to the certification subfield and level.



A verifier cannot be a nontechnical supervisor, a peer, or a subordinate of the candidate.

Company owners, company presidents, and others in positions of similar hierarchies must find someone outside their companies to serve as their verifiers, e.g., authority having jurisdiction, general contractor, engineering consultant, licensed engineers, etc.

If a candidate has identified multiple current direct supervisors, then the performance verification may be provided by a single verifier or a combination of verifiers as applicable. Each verifier must complete a Verifier Data form.

When needed and in situations of conflict or discrepancy, a verifier of record may be requested by NICET to clarify claims or inconsistencies, or to endorse and sign off on the candidate's documented work history submittals attesting to and confirming their accuracy and completeness.



An attestation of the technical quality, responsibility, and ethics demonstrated in the applicant's work experience by a professional who is familiar with the technical capabilities and background of the applicant.

Recommender

A professional who is familiar with the technical capabilities and background of the applicant and can attest to the technical quality, responsibility, and ethics demonstrated in the applicant's work experience.

NICET accepts recommendations from licensed professional engineers. NICET will also accept recommendations from other professionals such as registered land surveyors, senior engineering technicians, graduate engineers, architects, geologists, scientists, fire marshals, code officials, or officials of other authorities who have jurisdiction appropriate for the certification.

The person who completes the recommendation form cannot be a current or a previous verifier for the candidate, i.e., provide the Performance Measure verifications for the candidate.

NICET will not accept recommendation forms that are completed by relatives, peers, or subordinates of the applicant.

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.

The three-year certification period is established with the first certification you earn. All subsequent NICET certifications and higher levels expire on the same date as the first 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.

IN-BUILDING PUBLIC SAFETY COMMUNICATIONS REQUIREMENTS & INFORMATION

NICET levels of certification are designed to provide a career track from entry to engineering technician level. Each level has its own set of requirements, examinations, and application fees. The exam content outline provides information about what is covered in each domain (section) of the exam and the approximate percentage that each domain makes up of the total exam.

Level I – Technician Trainee

The candidates for NICET certification at Level I in In-Building Public Safety Communications should have the knowledge, experience, and basic skills needed to work in the industry. Under the direct supervision of a qualified technician, they apply fundamental radio frequency knowledge to install passive and active equipment per system design and manufacturer specifications. Level I technicians have at least 6 months of experience of in-building public safety communications.



Level I Exam Requirement: Pass the Level I Exam	
Content Domain	% of Examination
Performing Rough Installation Activities	
 Read and follow RF system installation documentation Install cable (e.g., support, fire stopping, grounding, etc.) Terminate cable Install passive equipment 	50-60%
Performing Finish and Trim Out Installation Activities	40-50%
Install donor antennaInstall active equipment	

Install dedicated annunciatorInstall battery backup (BBU)	
Number of Questions	Duration
88	110 minutes
Application Fee \$230	



Level I Performance Requirement: Obtain supervisor verification of all Level I Performance Measures

Level I	Performance Measures
2801-1101	accurately measure voltage, current, and resistance with an electronic multimeter
2801-1102	accurately read and understand project drawings and specifications
2801-1103	follow proper job site safety procedures
2801-1104	identify and properly use generic tools for a given task and use them safely
2801-1105	identify common IB-PSC equipment and related materials
2801-1106	perform proper installation and termination techniques for IB-ERCES components and cabling
2801-1107	properly mount active/passive control equipment, peripheral devices, and related hardware
2801-1108	properly use cabling and connectorizing tools for a given task



Level I Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing*:

A minimum of 6 months of technical experience in Emergency Responder Communication Enhancement Systems (ERCES), which MUST include:

At least 6 months of direct involvement with technical experience with ERCES or Industrial** Signal Boosters and In-Building Distributed Antenna Systems (DAS), including installation, terminations, and testing.

^{*}Time periods are full time equivalent.

Level II – Associate Engineering Technician

The candidates for NICET certification at Level II in In-Building Public Safety Communications should have the knowledge, experience, and intermediate skills needed to work in the industry. Under limited supervision, they utilize radio frequency principles and equipment to conduct initial surveys and install, commission, and maintain in-building public safety communications. They are responsible for ensuring system evaluation, quality, acceptance, and complete documentation. Level II technicians have at least 2 years of experience of in-building public safety communications.



Level II Exam Requirement: Pass the Level I and II Exams	
Content Domain	% of Examination
Defining the Project Scope Review and interpret project specifications Review and interpret project drawings Understand and comply with project schedules	15-25%
Evaluating RF Signal Strength and Quality Measure RF signal strength and quality Troubleshoot issues that impact RF performance	20-30%
Performing Rough Installation Activities Test cable Validate passive equipment installation Verify electrical and grounding requirements	15-25%
Performing Finish and Trim Out Installation Activities Validate electrical and grounding installation Interface with fire alarm systems	10-20%
Performing Commissioning, Acceptance Test, and Maintenance Activities • Adjust headend and remote amplification equipment • Test system alarms • Test battery backup (BBU)	20-30%
Number of Questions	Duration

Application Fee \$300



Level II Performance Requirement: Obtain supervisor verification of all Level I and II Performance Measures

Level II	Performance Measures
2801-3101	accurately review construction documents, bill of materials, and appropriate scope of work
2801-3102	accurately use RF test equipment to diagnose system installation placement and potential problems
2801-3103	adjust headend and remote amplification equipment
2801-3104	communicate technical information that is clear and accurate
2801-3105	demonstrate technical leadership or mentoring
2801-3106	evaluate and confirm whether a specific device will meet codes, standards, and project specifications
2801-3107	evaluate site conditions relevant to IB-PSC layout, and correctly identify the codes and standards involved
2801-3108	evaluate site conditions relevant to IB-PSC layout, and correctly identify potential hazards and installation issues
2801-3109	demonstrate an understanding of the different radio architectures used in public safety (simulcast systems, trunked systems, multicast systems, conventional systems, satellite systems, simplex systems, etc.)
2801-3110	generate complete and accurate reports on work activities, progress, and problems encountered
2801-3111	interpret voltage, current, and resistance measurements to test and diagnose system problems
2801-3112	knowledge of manufacturer's equipment
2801-3113	measure RF signal strength and quality
2801-3114	perform a Delivered Audio Quality (DAQ) test and properly interpret a DAQ scale
2801-3115	perform a test with TDR test equipment and properly measure distance to fault

2801-3116	perform and evaluate cable tests (i.e., sweep test, bend radius, VSWR, return loss)
2801-3117	perform and evaluate Continuous Wave (CW) tests
2801-3118	perform complete system commissioning (i.e., documentation of RF signal and cable test, completion test, and creation of as-built drawings)
2801-3119	perform installations of basic IB-PSCs in accordance with project plans or shop drawings with limited supervision
2801-3120	perform proper troubleshooting procedures to correct or repair system faults
2801-3121	support onsite design validation
2801-3122	verify proper mounting of control equipment, peripheral devices, and related hardware



Level II Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing*:

A minimum of 2 years of technical experience in Emergency Responder Communication Enhancement Systems (ERCES), which MUST include:

• At least 12 months of direct involvement with technical experience with ERCES or Industrial*** Signal Boosters and In-Building Distributed Antenna Systems (DAS).

These 12 months may include installation, commissioning, testing, plan preparation, code compliance review, project management, and/or technical business management.

The remaining 12 months may include any or a combination of the following:

- A maximum of 12 months of direct ERCES experience*.
- A maximum of 12 months of direct technical experience with Industrial*** Signal Boosters and In-Building Distributed Antenna Systems (DAS).
- A maximum of 6 months of related ERCES experience**.

Note that all previous work experience consisting of:

- Direct ERCES experience*
- Direct technical experience with Industrial*** Signal Boosters and In-Building Distributed Antenna Systems (DAS)

will be carried over from Level I and claimed towards the 24 month time requirement.

• Total related ERCES experience** shall not exceed 6 months.

^{*}Time periods are full time equivalent.

- **Related experience may include involvement in fire alarm or other code-driven and/or life safety electrical building systems work beyond the scope of the core experience defined above for this Level, including, but not limited to:
 - fiber optics
 - UTP
 - coax cabling
 - wireless RF systems

in the role/function of installation, inspection, testing, commissioning, maintenance, technical system estimating and sales, plans preparation, code compliance review, project management, or technical business management. It may also include providing full-time technical support or training to ERCES technicians.

***Industrial as defined in FCC Part 20 and 90 rules.

Level III – Engineering Technician

The candidates for NICET certification at Level III in In-Building Public Safety Communications should have the knowledge, experience, and advanced skills needed to work in the industry. Working independently, they utilize radio frequency principles and equipment to interpret and evaluate surveys, layout, and manage in-building public safety communication systems. They are responsible for ensuring system evaluation, quality, acceptance, and complete documentation. Level III technicians have at least 5 years of experience in in-building public safety communications.



Level III Exam Requirement: Pass the Level I, II, and III Exams	
Content Domain	% of Examination
Understand requirements and obtain authorization to proceed from the FCC licensee Understand requirements and obtain authorization to proceed from the AHJ	15-25%
 Evaluating RF Signal Strength and Quality Determine and obtain test equipment Identify sources of potential RF interferences Grade and document RF signal strength and quality test results 	30-40%
Provide parameters for system design applications Validate selected system equipment (BDA and non-BDA solutions)	30-35%

Application Fee \$355	
126	170 minutes
Number of Questions	Duration
Performing Commissioning, Acceptance Test, and Maintenance Activities • Complete acceptance process	5-15%
 Plan headend (e.g., physical layout, structural, and architectural construction considerations) Review and finalize system layout Validate bill of materials (BOM) Execute permit process 	



Level III Performance Requirement: Obtain supervisor verification of all Level I, II and III Performance Measures

Level III	Performance Measures
2801-5101	ability to recommend adjustments to design or selected components based on field observations
2801-5102	ability to respond to the technical aspects of an RFP/RFQ
2801-5103	accurately evaluate the completion of an IB-PSC installation project to ensure that applicable criteria (i.e., codes and standards, AHJ requirements, contractual obligations, project specifications, or client needs) have been met
2801-5104	commission a minimum of 2 active DAS or 10 passive DAS systems
2801-5105	coordinate project plans and schedules to meet project objectives
2801-5106	demonstrate an understanding of the different architectures utilized in land mobile radio systems for public safety
2801-5107	demonstrate an understanding of, and ability to use, local responder radio equipment to verify performance of system
2801-5108	develop and implement an installation strategy, including resolution of on-site scheduling conflicts and issues with other trades and project stakeholders
2801-5109	develop technical scope criteria for IB-PSC projects that meet project requirements
2801-5110	evaluate shop drawings for technical accuracy, including, but not limited to, RF Signal strength, quality and interference, power and battery calculations, and component compatibility

2801-5111	evaluate the requirements for a new or existing IB-PSC and provide recommendations based on functionality, codes, standards, project specifications, and cost
2801-5112	monitor and evaluate the general and job-specific capabilities of team members, to ensure that they have received adequate training on technical, safety, and communication
2801-5113	perform complete system acceptance for IB-PSC projects
2801-5114	recognize, identify, and mitigate potential threats to an IB-PSC's functionality or reliability from severe or existing environments



Level III Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing*:

A minimum of 5 years of technical experience in Emergency Responder Communication Enhancement Systems (ERCES), which MUST include:

• At least 4 years of direct involvement with technical experience with ERCES.

These 4 years may include team leadership, installation, maintenance, inspection, testing, commissioning, technical system estimating and sales, plan preparation, code compliance review, project management, and/or technical business management.

At least 12 months shall include direct involvement overseeing technical business, installation, and project management in ERCES.

The remaining 12 months may include any or a combination of the following:

- A maximum of 12 months of direct ERCES experience*.
- A maximum of 12 months of direct technical experience with Industrial*** Signal Boosters and In-Building Distributed Antenna Systems (DAS).
- A maximum of 6 months of related ERCES experience**.

Note that all previous work experience consisting of:

- Direct ERCES experience*
- Direct technical experience with Industrial*** Signal Boosters and In-Building Distributed Antenna Systems (DAS)

will be carried over from Levels I and II and claimed towards the 60 month time requirement.

Total related ERCES experience** shall not exceed 12 months.

^{*}Time periods are full time equivalent.

^{**}Related experience may include involvement in fire alarm or other code-driven and/or life safety electrical building systems work beyond the scope of the core experience defined above for this Level, including, but not limited to:

- fiber optics
- UTP
- coax cabling
- wireless RF systems

in the role/function of installation, inspection, testing, commissioning, maintenance, technical system estimating and sales, plans preparation, code compliance review, project management, or technical business management. It may also include providing full-time technical support or training to ERCES technicians.

***Industrial as defined in FCC Part 20 and 90 rules.



Level III Personal Recommendation: Obtain recommendation ratings showing a capacity for independent engineering technician responsibilities.

Design - Design Technician

The candidates for NICET certification in the Design of In-Building Public Safety Communications should have the knowledge, experience, and advanced skills needed to work in the industry. Working independently, they apply drafting skills and radio frequency theory to prepare plans for in-building public safety communications using project specifications, documents, and site survey data and design tools. Design technicians have at least 2 years of experience in the design of in-building public safety communications.



Design Technician Exam Requirement: Pass the Design Exam		
Content Domain	% of Examination	
 Defining the Project Scope Review and interpret project specifications Review and interpret project drawings and site survey reports 	15-25%	
 Evaluating RF Signal Strength and Quality Understand potential RF interference Consider all field observations in design Interpret RF signal strength and quality results 	25-35%	
Entering parameters into system design applications Select system equipment Plan headend (e.g., equipment selection, cabling, etc.) Determine system layout	45-55%	

Create bill of materials (BOM)Generate submittal packages	
Number of Questions	Duration
110	150 minutes

Application Fee \$355



Design Performance Requirement: Obtain supervisor verification of Design Performance Measures

Design	Performance Measures
2801-7101	accurately identify types of IB-PSC (active/passive)
2801-7102	accurately interpret and implement RF signal test reports and incorporate into a comprehensive, code-compliant design
2801-7103	accurately interpret and understand project drawings and specifications
2801-7104	accurately review construction documents for feasibility and potential liabilities
2801-7105	compile IB-PSC submittal packages
2801-7106	design a minimum of 10 active DAS or 15 passive DAS systems that have passed acceptance testing
2801-7107	evaluate the requirements for a new or existing IB-PSC system and its components, and provide a clear rationale design, based on functionality, codes, standards, and project specifications, for either replacement or repair of any deficiencies
2801-7108	generate a heat map and provide a propagation analysis with both uplink and downlink models
2801-7109	knowledge of AHJ test requirements for approval (e.g., approval for live voice testing, RF frequencies, radio communication protocols)
2801-7110	knowledge of manufacturer's equipment
2801-7111	knowledge of the RF principles necessary to correctly design a working IB-PSC system that considers real-world situations, including, but not limited to, near-far principles, noise floor, interference, isolation, uplink and downlink power and gain, bit error rate, basic wireless modulation techniques, signal interference and noise ratio, free space loss, link budgets, and time delay interference
2801-7112	review another designer's IB-ERCES design to optimize system efficiency, identify errors in calculations, and suggest corrections



Design Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing*:

A minimum of 2 years of technical experience in Emergency Responder Communication Enhancement Systems (ERCES), which MUST include:

At least 12 months of direct involvement with design experience with ERCES.

These 12 months may include systems layout, plan preparation, code compliance review, preparation and compiling of CAD drawings, submittals, propagation and attenuation calculations, RF strength and quality measurements, and/or coordination with installers/clients/engineers/AHJs.

May include up to 6 months of related ERCES experience**.

- *Time periods are full time equivalent.
- **Related experience may include involvement in fire alarm or other code-driven and/or life safety electrical building systems work beyond the scope of the core experience defined above for this Level, including, but not limited to:
 - fiber optics
 - UTP
 - coax cabling
 - wireless RF systems

in the role/function of installation, inspection, testing, commissioning, maintenance, technical system estimating and sales, plans preparation, code compliance review, project management, or technical business management. It may also include providing full-time technical support or training to ERCES technicians.



Design Personal Recommendation: Obtain recommendation ratings showing a capacity for senior engineering technician responsibilities.

CREATING AN ONLINE ACCOUNT

Existing Customers

If you have applied, tested, been certified, or even just created an account with your email 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.



Make sure that <u>nicet-noreply@useclarus.com</u> is marked as an allowed/friendly address in any junk or spam filters you may have. All communication concerning exams, certification, and recertification are sent from that address.

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.

The Application Card now resides on your home screen.

To purchase the exam, click the exam name on the left side of the Application Card.

To start the experience section of the application, click the blue "Apply Here" button.

Performance Verification Requests

Enter the name and email of your direct supervisor and click send. When you click send, an email survey is sent to the email address listed (it is best to let them know to expect it and make <u>nicet-noreply@useclarus.com</u> an allowed email address) and a "Sent requests:" log is added. The status in the sent request changes from "Pending responder" to "Submitted" with a date once your verifier completes the survey. It will also show a link to "View Details" to see the responses. To qualify for certification, all performance measures must be verified with a yes answer. More than one verifier may be used if necessary.

Recommendation Requests (Levels III and Design only)

Enter the name and email address of a professional who is familiar with your technical capabilities and background and can attest to the technical quality, responsibility, and ethics demonstrated in your work experience. When you click send, an email survey is sent to the email address listed (it is best to let them know to expect it and make nicet-noreply@useclarus.com an allowed email address) and a "Sent requests:" log is added. The status in the sent request changes from "Pending responder" to "Submitted" with a date once your recommender completes the survey.

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 (those seeking certification at higher levels and additional subfields) 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 that you submit a new application. If you have previously submitted paper, PDF, scanned, etc. documents and do not know the date of your last submission, contact NICET.

Use the "+" button to break your experience down into all applicable technical areas in which you have worked for each time period. If you have experience in areas that are not listed, use "Other" and explain in the description. Do not add technical areas for which you have not worked.

This section contains three pieces per entry: the Subfield/Technical Area (S/TA) selection (select S/TA from dropdown list), the percentage allocation (enter percent of work devoted to S/TA in right side column), and the detailed description (enter description in the text box below the S/TA dropdown list). Create an entry for S/TA. The detailed description should be a summary in your own words of the work you performed.

Finalize

Once you have the verification from your supervisor and have updated your work history, read the final instructions, agree to the affidavit, and click "Finalize" to indicate to NICET staff that your submission is ready for review. Once you click "Finalize", your submission must not be altered unless requested by NICET.

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 IB-PSC programs have <u>online practice tests</u> at all levels 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.

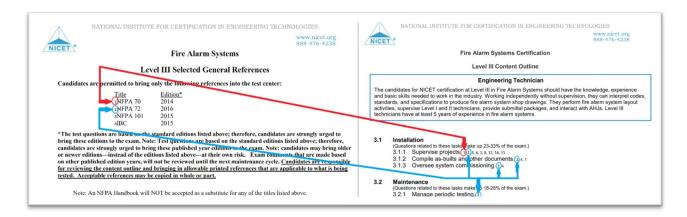
Recognized Training Providers

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.

NICET Recognized NICET Recognized NICET Recognized NICET Recognized

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.

Scheduling the Examination

Applicants must schedule the exam location and time with Pearson VUE testing centers. Once the application has been processed, candidates can schedule the examination immediately after payment is processed.

Examination Administration

Pearson VUE has numerous testing centers across the country where IB-PSC candidates can take their examinations. Candidates for IB-PSC Level I may also take their examinations using an online proctored system.

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 lockers with which 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 a re-authorization and may have to pay an additional fee.

Online Proctored Testing Requirements and Instructions (IB-PSC Level I only)



Level I may be administered using OnVUE for remote proctored online delivery. On VIE See System Requirements, Additional Permissions, and Helpful Instructions before selecting.

Candidates choosing online, remote proctored testing are asked to log into their testing session 15 minutes prior to the scheduled appointment time. This will give you time to repeat the system check and to make any adjustments.

Candidates may test on a personal or work computer. However, work computers generally have restrictions such as firewalls that may prevent successful delivery. Tablets are prohibited.

Before starting your exam, ensure that you are connected to a power source. Internet cookies must be enabled and pop-up blocking settings must be disabled.

A wired connection is preferred over wireless. Tethering to a mobile hotspot is prohibited.

You must use a webcam with a minimum resolution of 640x480 at 10 fps. You will need to verify that your audio and microphone are not set on mute. You should also shut down all non-essential applications before launching the OnVUE software.

Your testing environment should be in a walled room with a closed door and without distractions. No one else is permitted in the room with you while you are testing. If another person enters the room while you are testing, your exam will be terminated.

You are required to present a current government-issued ID. The name on your ID must match the name in your web account profile and in your appointment confirmation email. Acceptable forms of identification include a driver's license, passport, military ID, identification card (national/state identify card), or alien registration card (green card, permanent resident, visa).

You can only use references that have been approved for Level I.

Note: The name on the ID must match the name used on the exam application, or you will not be allowed to take the exam.

Special Accommodations for the Examination

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 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 that 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, <u>click</u> 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.

Candidates who are testing using the online remote proctored (OnVUE) option may reschedule their appointment date/time right up until their appointment without incurring additional fees.

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 IB-PSC Level I, II, III or Design examinations, you can reschedule the examination after a 30-day period has elapsed. Retesting 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 submit 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 (of 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 commit 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 check-in
- 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
- Exam Environment Photos: Candidates are required to take four (4) photos of their exam environment during check-in
 - Environment photos are used for the proctor's reference during the session and for quality control, security, and auditing purposes
 - Pearson VUE deletes check-in photos according to regulations in the country where a candidate sits for an exam
 - After a candidate submits photos, they are under exam conditions. The photos are reviewed by an OnVUE session greeter. Candidates are being recorded during this time and during the exam session

For remote proctored exams, in addition to the above, the below practices are followed to ensure exam security:

- Pearson VUE Browser Lock is a secure browser that is integrated with an OnVUE session. Browser Lock must be downloaded from the exam sponsor home page PRIOR to the exam. Browser Lock prevents candidates from:
 - Accessing other applications or the candidate's desktop
 - Task switching
 - Using function keys and certain keyboard shortcuts
 - Typing a URL
 - Cutting, copying, or pasting content outside of Browser Lock into the exam or copying content from the exam outside of Browser Lock
 - Screensharing

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.