

# ICT Cabling Installation Handbook

*INST1, INSTC,  
INSTF, and TECH*

**Bicsi**<sup>®</sup>

## Congratulations, you are on your way to earning a world-class ICT industry certification.

Dedicated information and communications technology (ICT) professionals such as yourself recognize and understand that holding a BICSI credential makes a difference in your career and the ICT industry. After earning an installation certificate or certification, you will be recognized as an elite, knowledgeable, and experienced professional, well-versed in the latest ICT cabling methods and techniques. We appreciate your professional commitment in demonstrating the highest global standard with an installation credential.

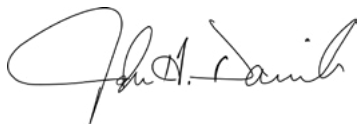
BICSI develops and delivers premier certifications that validate mastery in the field of ICT and contribute to the continued improvement of individual and organizational performance. We work closely with ICT professionals from around the world to ensure that our programs are up-to-date and relevant for today's competitive business environments.

This handbook provides an overview of the installation certifications, including eligibility requirements and recertification requirements, and provides detailed information to help guide you through the entire certification process.

We wish you much success,



David M. Richards, RCDD, NTS, OSP, TECH, CT  
BICSI Board President



John H. Daniels, CNM, FACHE, FHIMSS  
BICSI Chief Executive Officer

### For more information:

[bicsi.org/credentialing](https://bicsi.org/credentialing)

### Questions:

Phone: +1 813.979.1991 or 800.242.7405  
(USA & Canada toll-free)

Email: [credentialing@bicsi.org](mailto:credentialing@bicsi.org)

# Table of Contents

<b>ABOUT BICSI AND THE INSTALLATION CREDENTIALS .....</b>	<b>3-6</b>
BICSI Core Values .....	3
BICSI and Our Certification Programs .....	4
GI Bill Information .....	4
BICSI Installer/Technician Definition .....	4
About BICSI Installation Credential Holders .....	5
Installation Credentialing Process Overview .....	5
Exam Delivery Statement .....	6
Non-Discrimination Policy .....	6
Sanctioned Countries .....	6
Contact Information .....	6
Name, Address, and Email Information .....	6
<b>INSTALLATION CREDENTIALING PROCESS .....</b>	<b>7-30</b>
<b>Scope of Installer 1 Certificate .....</b>	<b>7-10</b>
The Five Phases .....	7
<b>Phase 1: Decide .....</b>	<b>7</b>
Exam Eligibility Requirements .....	7
Physical Requirements .....	7
<b>Phase 2: Prepare .....</b>	<b>8-10</b>
BICSI ICT Installer 1 Exam Blueprint .....	8-9
Examination .....	10
Hands-On Examination .....	10
Written Examination .....	10
Exam Specifics .....	10
Suggested Study .....	10
<b>Scope of Installer 2, Copper Certification .....</b>	<b>11-14</b>
The Five Phases .....	11
<b>Phase 1: Decide .....</b>	<b>11</b>
Exam Eligibility Requirements .....	11
Experience .....	11
Physical Requirements .....	11
<b>Phase 2: Prepare .....</b>	<b>12-14</b>
BICSI ICT Installer 2, Copper Exam Blueprint .....	12-13
Examination .....	14
Hands-On Examination .....	14
Written Examination .....	14
Exam Specifics .....	14
Suggested Study .....	14
<b>Scope of Installer 2, Optical Fiber Certification .....</b>	<b>15-18</b>
The Five Phases .....	15
<b>Phase 1: Decide .....</b>	<b>15</b>
Exam Eligibility Requirements .....	15
Experience .....	15
Physical Requirements .....	15
<b>Phase 2: Prepare .....</b>	<b>16-18</b>
BICSI ICT Installer 2, Optical Fiber Exam Blueprint .....	16-17
Examination .....	18
Hands-On Examination .....	18
Written Examination .....	18
Exam Specifics .....	18
Suggested Study .....	18
<b>Scope of Technician Certification .....</b>	<b>19-22</b>
The Five Phases .....	19
<b>Phase 1: Decide .....</b>	<b>19</b>
Exam Eligibility Requirements .....	19
Experience .....	19
Physical Requirements .....	19
<b>Phase 2: Prepare .....</b>	<b>20-22</b>
BICSI ICT Technician Exam Blueprint .....	20-22
Examination .....	22
Hands-On Examination .....	22
Written Examination .....	22
Exam Specifics .....	22
Suggested Study .....	22
<b>Certification and Recertification .....</b>	<b>23</b>
Recertification Requirements .....	23
<b>Exam Copyright and Development .....</b>	<b>23</b>
Exam Copyright .....	23
How Exams are Developed .....	23
<b>Phase 3: Apply .....</b>	<b>24-25</b>
Application Process .....	24
Application Processing .....	24
Fees .....	24
Payment Methods .....	24
Incomplete Applications .....	25
Application Denials .....	25
Refund Policy .....	25
Legal Name .....	25
Eligibility Dates .....	25
Waiting Period .....	25
Terms and Conditions .....	25
<b>Phase 4: Test .....</b>	<b>26-28</b>
Request for Special Accommodations .....	26
Appeal of Denial of Request for Special Accommodations .....	26
How to Schedule .....	26
Rescheduling or Cancellation Policy .....	27
Exam Fee .....	27
Exam Identification and Conduct Requirements .....	27
Examples of Acceptable Names on Required ID .....	27
Confidentiality .....	28
Passing Score .....	28
Results .....	28
Retest Information .....	28
Comments .....	28
<b>Phase 5: Recertify .....</b>	<b>29-30</b>
Status Definitions .....	29
Installation Credential Registration Period .....	29
Recertification Requirements .....	29
Recertification Fees .....	29
Recertification Audit .....	30
<b>AFTER BECOMING AN INSTALLATION CREDENTIAL HOLDER... 31-32</b>	
Use of the Designation .....	31
Digital Credentials .....	31
Downloadable Certificate .....	31
Credential Verification .....	31
Records Retention .....	31
Recertification Suspension Policy .....	32
Reinstatement Policy for Lapsed Credential Holders .....	32
<b>GENERAL POLICIES AND PROCEDURES .....</b>	<b>33-34</b>
Code of Ethics .....	33
Professional Obligations .....	33
BICSI Credential's Appeals Process .....	34
Appeals Panel .....	34

# ABOUT BICSI AND THE INSTALLATION CREDENTIALS

BICSI is a professional association with a core purpose of advancing the information and communications technology (ICT) profession. As the preeminent resource for the connected world, BICSI currently serves 26,000 members and credential holders in over 100 countries and is headquartered in Tampa, Florida, USA.

## BICSI Core Values

**Integrity** • **Service** • **Excellence**

**Integrity** is defined as the quality of being honest and having strong moral principles and moral uprightness. Integrity defines who we are as a professional association. Some of the moral principles include traits such as courage, honesty, responsibility, accountability, openness, self-respect, and humility. Integrity is also defined as the state of being whole and undivided. BICSI staff, volunteers, members, credential holders, affiliates, and all other stakeholders must strive to do the right thing for the organization, even when no one is looking. Integrity is first because it is critical to BICSI's success, "... just as strong beams are critical to a house. If the beams are not whole, sound, or complete, if rotten is mixed with good, if termites have eaten the insides, then individual beams will break under stress; beams will fail in their relationship to other beams; nails will pull out and the house will fall."<sup>1</sup>

**Service** to the profession is important. However, BICSI takes it one step further by encouraging service before or above self because it reminds us that we are all part of something bigger than ourselves, and that is the BICSI mission. It defines what we do as a professional association. BICSI staff, volunteers, members, credential holders, affiliates, and all other stakeholders demonstrate the following attributes, among others:

- **Stewardship:** We plan and manage the resources entrusted to us with great care and responsibility.
- **Self-discipline:** We adhere to policies and procedures such as the BICSI Code of Ethics/Professional Obligations.

- **Self-control:** We do not behave in a way that would discredit ourselves, our association, or the ICT profession.
- **Loyalty:** We are faithful to our BICSI commitments and voluntary obligations.
- **Inclusion:** We all help create an environment free of fear, discrimination, harassment, intimidation, or unfair treatment.

**Excellence** defines how BICSI strives to do everything it does, from beginning to end and everywhere in between. BICSI staff, volunteers, members, credential holders, affiliates, and all other stakeholders all have a role in ensuring BICSI provides the highest quality training and education, maintains highly credible credentialing programs, provides highly valued membership programs that meet member needs, and provides responsive customer care that exceeds service expectations. No matter what role we have, we are all responsible for doing our personal best and providing a good example to others.<sup>2</sup>

BICSI will make integrity a daily practice through service above self, underpinned by excellence in everything we do to advance the information and communications technology (ICT) profession.

<sup>1</sup> Vriesenga, M. P., Maj. (n.d.). Thinking about Core Values [Scholarly project]. Retrieved November 13, 2020, from <https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Chronicles/michaelv.pdf>

<sup>2</sup> "Setting an example is not the main means of influencing another; it is the only means." Dr. Albert Einstein.

# ABOUT BICSI AND THE INSTALLATION CREDENTIALS

## BICSI and Our Certification Programs

ICT encompasses the design, management, integration, and installation of pathways, spaces, optical fiber- and copper-based distribution systems, wireless-based systems, and infrastructure that supports the transportation of information and associated signaling between and among communications and information gathering devices.

Through courses, conferences, publications, and professional certification programs, BICSI staff and volunteers assist ICT professionals in delivering critical products and services and offer opportunities for continual improvement and enhanced professional stature.

BICSI's certification programs have maintained the global standard of ICT excellence for decades, upholding the definitive mark of professional reliability for the built environment. Yet as the needs of structured cabling systems grow more complex, so too do the responsibilities

of installers and technicians. For dedicated ICT professionals in a rapidly expanding industry, it is crucial to recognize that best practices are not only essential to your success – they also must evolve.

As the leader in documenting and purveying the latest best practices for the built environment, having a working knowledge of the industry's most relevant and forward-looking standards make it easier for decision-makers to choose a company and its employees for any project.

BICSI develops the highest quality library of credentialing material to validate technician and installer mastery anywhere in the ICT landscape, contributing to the continued improvement of individual and organizational performance. By leveraging the incredible commitment to excellence from our volunteers worldwide, credential holders can rest assured their BICSI qualifications are world-class.



## GI Bill Information

The BICSI Installation exam may be eligible for GI Bill reimbursement for those who qualify. The VA pays only the exam costs, or up to US\$2,000 for each exam. Payment is issued after you submit proof of payment to the VA. The VA will pay for exams even if you are unsuccessful in your attempt to earn a certification. For more information, including an application for reimbursement of exam fees, please visit the BICSI Credentialing web page at [bicsi.org/gibill](https://www.bicsi.org/gibill). Please note that BICSI exam requirements and retest policies still apply.

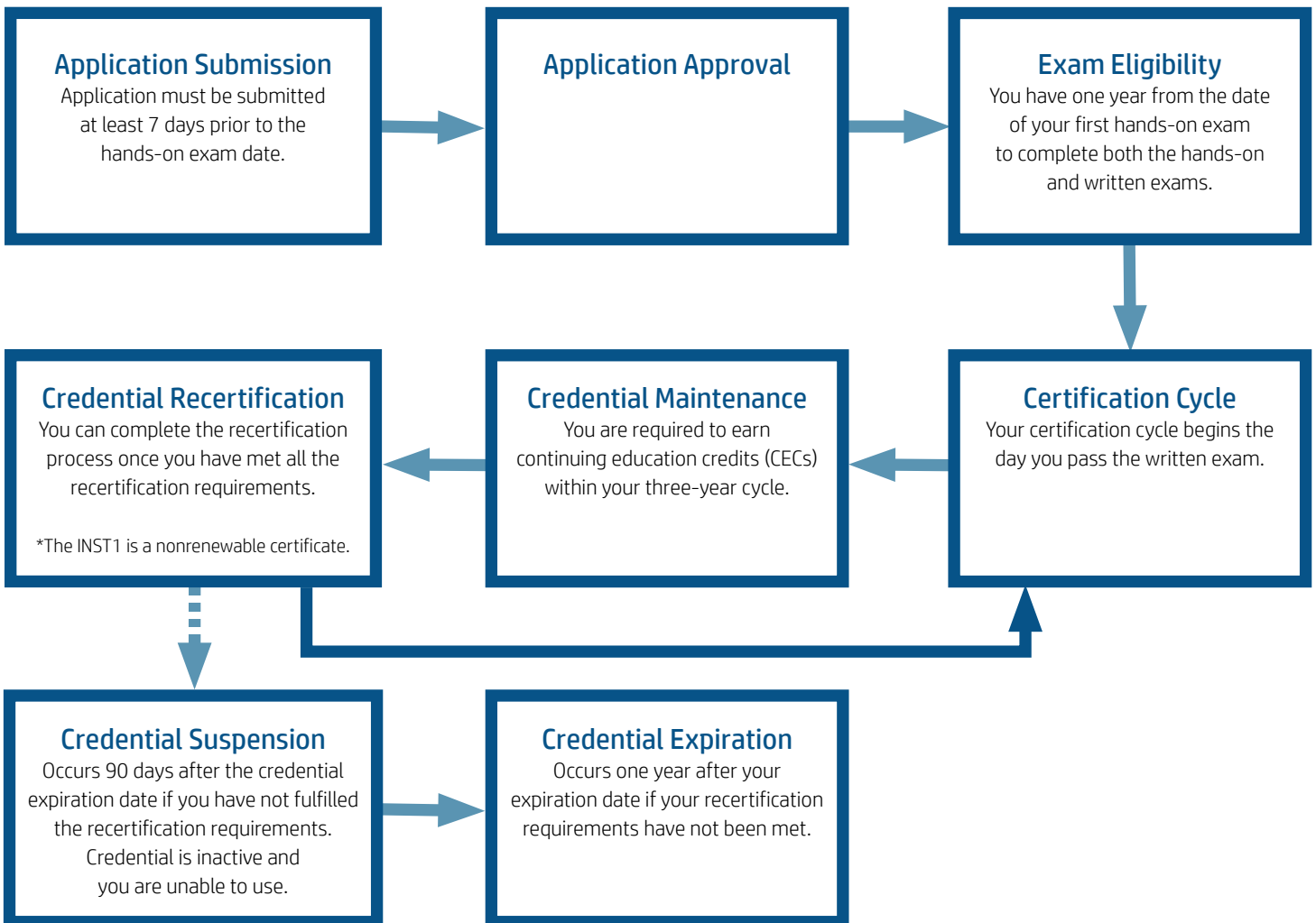
## BICSI Installer/Technician Definition

BICSI Installers and Technicians demonstrate advanced knowledge in installing and troubleshooting structured cabling systems (SCS) and network components in compliance with the proper and most current methods, industry best practices, standards, and codes within the confines of a commercial building structure.

## BICSI Installation Credential Holders:

Meet the Highest Industry Standards	Possess Proven Technical Knowledge, Skills, and Competencies
Recognized Globally	Demonstrate a Commitment to Professional Growth and Quality
Fueled by the Latest Technologies, Methods, and Best Practices	Regarded by Employers as Experts in Cabling Installation and Maintenance

## INSTALLATION CREDENTIALING PROCESS OVERVIEW





### Exam Delivery Statement

Pearson VUE is the exam delivery provider of BICSI exams. Pearson VUE is the world's largest learning company with more than 35,000 employees working across the globe. They are the leader in computer-based testing, with testing centers located globally.

### Non-Discrimination Policy

It is the policy of BICSI and Pearson VUE that no individual shall be excluded from the opportunity to participate in the BICSI ICT Cabling Installation Credentialing Program on the basis of gender, ethnic origin, national origin, religion, age, or disability.

### Sanctioned Countries

BICSI is committed to conducting business in compliance with the United States State Department of Foreign Assets Control (OFAC) Sanctions Programs and Country Information and the Specially Designated Nationals (SDNs) and Blocked Persons List. This would include any individual with a residence or a nationality of Iran, Syria, Crimea, Cuba, or North Korea.

Individuals who present approved candidate identification during the admissions process showing a nonsanctioned country permanent residence may test and receive certifications. For more information, please [click here](#).

### Contact Information

All questions and requests for information about the BICSI ICT Cabling Installation Credentialing Program & Hands-on Exam should be directed to:

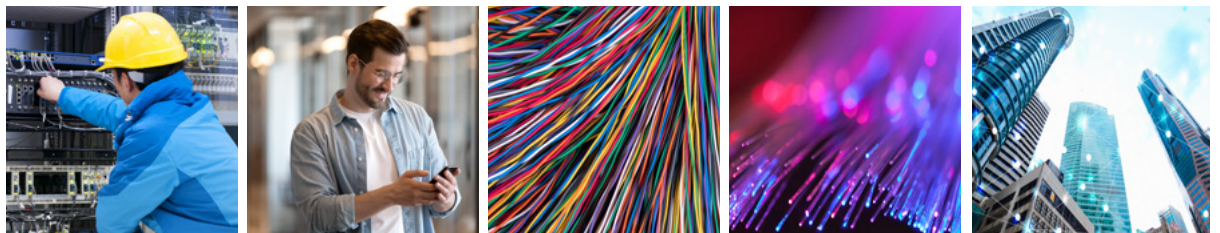
BICSI, 8610 Hidden River Parkway, Tampa, Florida 33637  
Phone: +1 813.979.1991 or 800.242.7405 (USA & Canada toll-free)  
Email: [credentialing@bicsi.org](mailto:credentialing@bicsi.org)

All questions and requests for information about written exam scheduling should be directed to:

Pearson VUE, 5601 Green Valley Drive, Bloomington, Minnesota 55437  
Phone: 866.904.4432 (USA & Canada toll-free)  
Web: [pearsonvue.com/bicsi](http://pearsonvue.com/bicsi)  
Web (for online exams): [pearsonvue.com/bicsi/onvue](http://pearsonvue.com/bicsi/onvue)

### Name, Address, and Email Information

BICSI will send you important information through email and text messaging. It is your responsibility to keep the contact information current on your online BICSI Profile at [bicsi.org](http://bicsi.org). Please log onto your BICSI profile and make sure your home address and cellphone numbers are up-to-date so you do not miss any important notifications.



# Scope of Installer 1 Certification

BICSI Installer 1® (INST1®) is a nonrenewable certificate. It demonstrates entry level knowledge and skills to install information and communications technology (ICT) systems. The certificate validates basic knowledge in the proper and most current methods of installing ICT-related cabling within the confines of a commercial building structure. Skill sets include but are not limited to pulling cable, terminating, and testing copper and coaxial cable.

**Installer 1 experience in installation is defined as:** BICSI Installer 1® (INST1®) certificate is a non-renewable certificate demonstrating entry level knowledge to install information and communications technology (ICT) systems. The Program provides installers with access to training in the proper and most current methods of installing ICT related cabling within the confines of a commercial building structure. Skillsets include but are not limited to pulling cable, terminating and testing copper and coaxial cable.

## THE FIVE PHASES



## PHASE 1: DECIDE

### Eligibility:

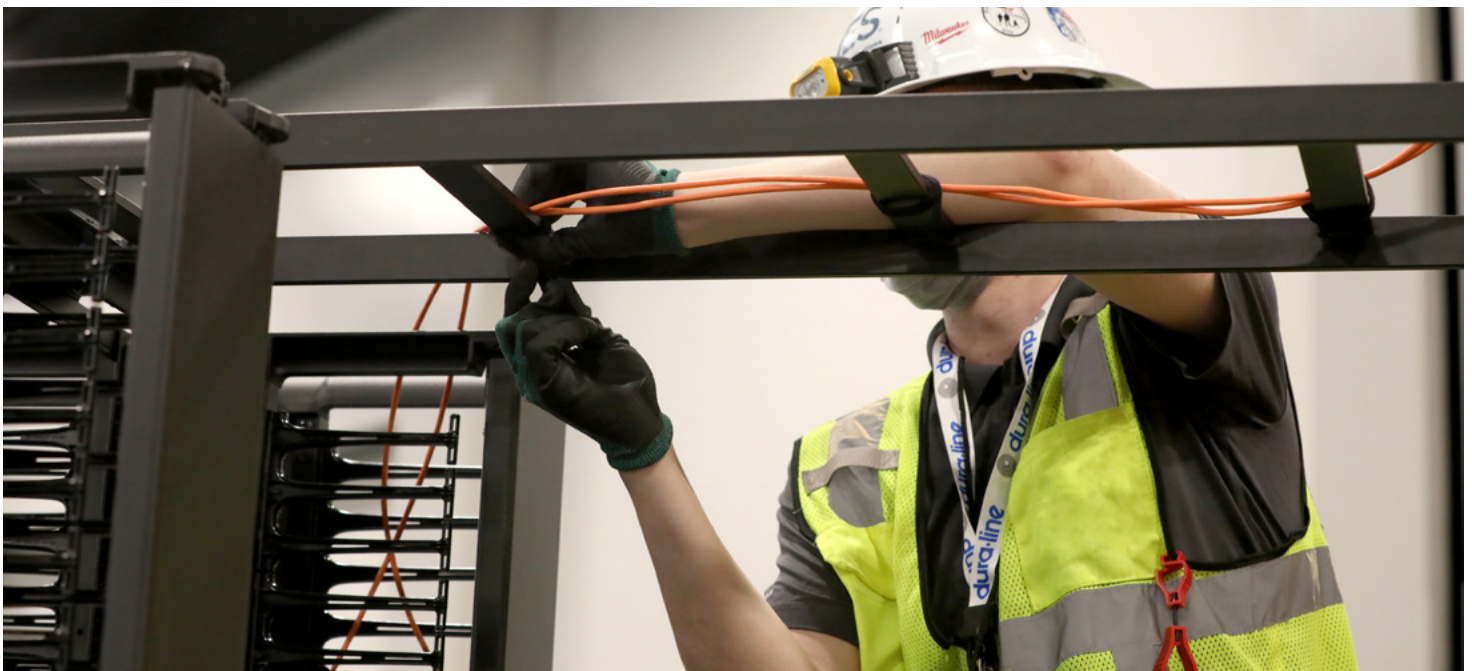
There is no prior ICT industry installation experience requirement for individuals preparing to sit for the Installer 1 exam.

It is strongly recommended that examinees:

- Attend IN101: BICSI Installer 1 Training
- Complete at least 50 hours of independent study of BICSI's *Information Technology Systems Installation Methods Manual (ITSIMM)*

### Physical Requirements:

Must be able to distinguish between different colors, possess manual dexterity to complete fine motor tasks, stand for extended periods of time, climb ladders, and lift and carry items weighing up to 50 lbs.





## **PHASE 2: PREPARE**

### **BICSI ICT Installer 1 Exam Blueprint**

BICSI’s credentialing programs are a gold standard in the information and communications technology (ICT) industry. The Installer 1 credential validates that an installer has mastery of knowledge and skills to perform cable installations according to accepted best practices from the ICT cabling installation industry. Every three-to-five years the Registration and Credentials Supervision Committee (RCSC) oversees a job task analysis (JTA) of this credentialing program to ensure the program is current, relevant, and held to the highest standard. Based on this analysis, 9 core competencies were identified as essential to cable installation.

The content below outlines the competency areas covered on the Installer 1 exam.

### **BICSI ICT INSTALLER 1 EXAM CONTENT OUTLINE**

<b>AREA OF EXPERTISE</b>	<b>% OF EXAM</b>
<b>Conduct Field Planning, Implementation, and Design</b>	<b>13%</b>
<ul style="list-style-type: none"> <li>• Identify and distinguish properties and types of copper cable</li> <li>• Identify and distinguish properties and types of fiber</li> <li>• Interpret blueprints</li> <li>• Inventory job supplies and materials</li> <li>• Verify and comply with site safety plan</li> <li>• Perform labeling according to a labeling scheme</li> </ul>	
<b>Establish Pathways and Space</b>	<b>31%</b>
<ul style="list-style-type: none"> <li>• Build telecommunication spaces (e.g., TRs, ERs, EFs, TEs)</li> <li>• Install bonding infrastructure</li> <li>• Install cable support systems</li> <li>• Prepare telecommunication outlet at wall</li> <li>• Install cut-in rings (cavity box)</li> <li>• Prepare telecommunication outlet at floor</li> <li>• Prepare telecommunication outlet at utility column and/or modular furniture</li> <li>• Prepare telecommunication outlet at other locations (e.g., ceilings, hazardous, exterior)</li> <li>• Install sleeves, cores, and slots</li> <li>• Install poke throughs</li> <li>• Install cable trays, ladder racks and continuous cable support systems</li> <li>• Install non-continuous cable supports</li> <li>• Install raceways</li> <li>• Install cable supports systems under the floor</li> <li>• Install inner duct for fiber (ENT)</li> <li>• Install firestop and/or smoke barrier system</li> </ul>	

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## BICSI ICT INSTALLER 1 EXAM CONTENT OUTLINE (CONTINUED)

AREA OF EXPERTISE	% OF EXAM
<b>Pull Copper and Fiber Cable</b>	<b>21%</b>
<ul style="list-style-type: none"><li>• Perform cable pulling setup</li><li>• Install pull string or rope in conduit</li><li>• Pull horizontal telecommunication outlet cable (conduit)</li><li>• Pull horizontal telecommunication outlet cable in open ceiling</li><li>• Pull backbone--riser from top down</li><li>• Pull backbone--riser from bottom up</li><li>• Pull backbone--horizontal backbone</li></ul>	
<b>Terminate Copper and Fiber Cable</b>	<b>15%</b>
<ul style="list-style-type: none"><li>• Perform pre-termination functions</li><li>• Install correct connecting hardware for copper and fiber terminations</li><li>• Perform copper IDC termination (multi-pair)</li><li>• Perform copper IDC termination (four-pair)</li><li>• Perform coax termination</li><li>• Perform fiber termination</li></ul>	
<b>Test Copper and Fiber Cable</b>	<b>6%</b>
<ul style="list-style-type: none"><li>• Perform copper cable testing</li></ul>	
<b>Perform Troubleshooting</b>	<b>6%</b>
<ul style="list-style-type: none"><li>• Perform copper cable troubleshooting</li></ul>	
<b>Perform Retrofits</b>	<b>3%</b>
<ul style="list-style-type: none"><li>• Remove abandoned cable</li></ul>	
<b>Apply Concepts of Integration and/or Converge to Scope of Work</b>	<b>3%</b>
<ul style="list-style-type: none"><li>• Provide structure cabling system (SCS) to support installation of other systems (e.g., paging, sound masking, clock, nurse call, BAS, life safety, elevator)</li></ul>	
<b>Codes and Standards</b>	<b>2%</b>
<ul style="list-style-type: none"><li>• Adhere to local, state, and federal fire and/or building codes and/or standards</li></ul>	

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### Examination

The Installer 1 exam is currently based on BICSI's *ITSIMM* and is a two-part exam – hands-on and written. To become a BICSI Installer 1, you must successfully pass both parts.

### Hands-On Examination

The Installer 1 hands-on exam is given the last day of the IN101 course, which is generally on Friday afternoon (see course schedule). The hands-on performance exam consists of completing six tasks to industry standards, within a 20-minute per-task time limit. Proctors will give pass/fail results after each task. If you fail to successfully complete one of the hands-on exam tasks, you will be given the opportunity to retest on that task on the same day at no additional cost. If you fail the same task twice or fail a total of two hands-on tasks, the hands-on examination will need to be retaken at another date.

### Written Examination

The written exam can ONLY be taken after the hands-on exam has been completed successfully. The computer-based exam is two hours in length and consists of 75 questions drawn from BICSI's *ITSIMM*. The exam is multiple choice, with questions based on both knowledge and application.

### Exam Specifics

Number of Questions ..... 75

Allotted Examination Time ..... 2 hours

### Suggested Study:

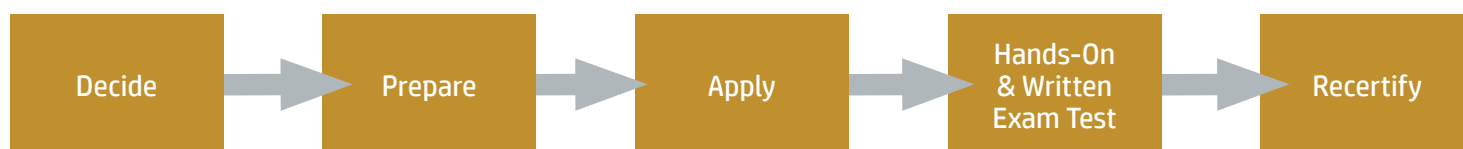
- Attend IN101: BICSI Installer 1 Training
- 50 hours of independent study of BICSI *Information Technology Systems Installation Methods Manual (ITSIMM)*
- Safety and Personal Protective Equipment (PPE)

# Scope of Installer 2, Copper Certification

Individuals holding the BICSI Installer 2, Copper® (INSTC®) certification are skilled at working with structured cabling systems (SCS) and network components. Copper Installers shall perform duties in compliance with industry best practices, BICSI methodologies, standards, and codes. Copper Installers may work independently, as part of a team, as a team leader, or under the direction of a professional.

**Installer 2, Copper experience in installation is defined as:** hands-on experience with code-compliant copper systems installation which includes preparation of pathways and spaces, integration, cable installation, termination and testing of copper, and field documentation.

## THE FIVE PHASES



## PHASE 1: DECIDE

### Eligibility:

#### Option #1

Six months of verifiable, full-time equivalent structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** have passed the BICSI instructor-led, hands-on training Installer 1 certificate program.

#### Option #2

One year of verifiable, full-time equivalent Copper structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** attend and successfully complete BICSI's instructor-led, hands-on training in Copper structured cabling systems (SCS) training\*.

#### Option #3

Two years of verifiable, full-time equivalent structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** have completed a minimum of 35 hours of documented continuing education in Copper structured cabling systems which may include training provided by BICSI, manufacturer training, college courses, industry training and/or vendor training.

\*Exam approval is contingent upon successful completion of the training course.

Structured cabling systems (SCS) experience must be obtained in the following areas:

1. Principles of copper transmission
2. Site surveys
3. Job site safety
4. Interpreting blueprints
5. Installation practices of pathways and spaces
6. Planning, pulling, and terminating copper cabling
7. Labeling procedures
8. Grounding and bonding
9. Copper cable testing
10. Firestopping standards and local codes
11. Field documentation
12. Job evaluation and quality control
13. Upholding BICSI ethics and standards of conduct

### Physical Requirements:

Must be able to distinguish between different colors, possess manual dexterity to complete fine motor tasks, stand for extended periods of time, climb ladders, and lift and carry items weighing up to 50 lbs.

## **PHASE 2: PREPARE**

### **BICSI ICT Installer 2, Copper Exam Blueprint**

BICSI’s credentialing programs are a gold standard in the information and communications technology (ICT) industry. The Installer 2, Copper credential validates that an installer has mastery of knowledge and skills to perform copper cable installations according to accepted best practices from the ICT cabling installation industry. Every three-to-five years the Registration and Credentials Supervision Committee (RCSC) oversees a job task analysis (JTA) of this credentialing program to ensure the program is current, relevant, and held to the highest standard. Based on this analysis, 10 core competencies were identified as essential to copper cable installation.

The content below outlines the competency areas covered on the Installer 2, Copper exam.

### **BICSI ICT INSTALLER 2, COPPER EXAM CONTENT OUTLINE**

<b>AREA OF EXPERTISE</b>	<b>% OF EXAM</b>
<b>Conduct Field Planning, Implementation, and Design</b>	<b>15%</b>
<ul style="list-style-type: none"> <li>Identify and distinguish properties and types of copper cable</li> <li>Interpret blueprints</li> <li>Inventory job supplies and materials</li> <li>Verify and comply with site safety plan</li> <li>Perform labeling according to a labeling scheme</li> </ul>	
<b>Establish Pathways and Space</b>	<b>28%</b>
<ul style="list-style-type: none"> <li>Build telecommunication spaces (e.g., TRs, ERs, EFs, TEs)</li> <li>Install bonding infrastructure</li> <li>Install cable support systems</li> <li>Prepare telecommunication outlet at wall</li> <li>Install cut-in rings (cavity box)</li> <li>Prepare telecommunication outlet at floor</li> <li>Prepare telecommunication outlet at utility column and/or modular furniture</li> <li>Prepare telecommunication outlet at other locations (e.g., ceilings, hazardous, exterior)</li> <li>Install sleeves, cores, and slots</li> <li>Install poke throughs</li> <li>Install cable trays, ladder racks and continuous cable support systems</li> <li>Install non-continuous cable supports</li> <li>Install raceways</li> <li>Install cable supports systems under the floor</li> <li>Install firestop and/or smoke barrier system</li> </ul>	

(Continued on next page)



## BICSI ICT INSTALLER 2, COPPER EXAM CONTENT OUTLINE (CONTINUED)

AREA OF EXPERTISE	% OF EXAM
<b>Pull Copper Cable</b>	<b>14%</b>
<ul style="list-style-type: none"><li>• Perform cable pulling setup</li><li>• Install pull string or rope in conduit</li><li>• Pull horizontal telecommunication outlet cable (conduit)</li><li>• Pull horizontal telecommunication outlet cable in open ceiling</li><li>• Pull backbone--riser from top down</li><li>• Pull backbone--riser from bottom up</li><li>• Pull backbone--horizontal backbone</li></ul>	
<b>Terminate Copper Cable</b>	<b>14%</b>
<ul style="list-style-type: none"><li>• Perform pre-termination functions</li><li>• Install correct connecting hardware for copper terminations</li><li>• Perform copper IDC termination (multi-pair)</li><li>• Perform copper IDC termination (four-pair)</li><li>• Perform coax termination</li><li>• Perform copper crimp termination--modular plugs</li></ul>	
<b>Perform Splicing</b>	<b>5%</b>
<ul style="list-style-type: none"><li>• Perform copper splicing</li></ul>	
<b>Test Copper Cable</b>	<b>6%</b>
<ul style="list-style-type: none"><li>• Perform copper cable testing</li></ul>	
<b>Perform Troubleshooting</b>	<b>6%</b>
<ul style="list-style-type: none"><li>• Perform copper cable troubleshooting</li></ul>	
<b>Perform Retrofits</b>	<b>4%</b>
<ul style="list-style-type: none"><li>• Identify active circuits</li><li>• Perform cutover</li><li>• Remove abandoned cable</li></ul>	
<b>Apply Concepts of Integration and/or Converge to Scope of Work</b>	<b>5%</b>
<ul style="list-style-type: none"><li>• Apply concepts of physical network topologies and/or systems</li><li>• Apply concepts of network components</li><li>• Install security systems and alarm systems</li><li>• Install wireless systems</li><li>• Provide structure cabling system (SCS) to support installation of other systems (e.g., paging, sound masking, clock, nurse call, BAS, life safety, elevator)</li></ul>	
<b>Codes and Standards</b>	<b>3%</b>
<ul style="list-style-type: none"><li>• Adhere to local, state, and federal fire and/or building codes and/or standards</li></ul>	

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### Examination

The Installer 2, Copper exam is currently based on BICSI's *ITSIMM* and is a two-part exam – hands-on and written. To become a BICSI Installer 2, Copper, you must successfully pass both parts.

### Hands-On Examination

The Installer 2, Copper hands-on exam is given the last day of the IN225 course, which is generally on a Friday afternoon (see course schedule). The hands-on performance exam consists of completing six tasks to industry standards, within a 20-minute per-task time limit. Proctors will give the pass/fail results after each task. If you fail to successfully complete one of the hands-on exam tasks, you will be given the opportunity to retest after each task on the same day at no additional cost. If you fail the same task twice or fail a total of two hands-on tasks, the hands-on exam will need to be retaken on another date.

### Written Examination

The written exam can ONLY be taken after the hands-on exam has been completed successfully. The computer-based exam is two hours in length and consists of 100 questions drawn from BICSI's *ITSIMM*. The exam is multiple choice, with questions based on both knowledge and application.

### Exam Specifics

Number of Questions ..... 100  
Allotted Examination Time ..... 2 hours

### Suggested Study:

- Attend IN101: BICSI Installer 1 Training
- Attend IN225: BICSI Installer 2, Copper Training
- 50 hours of independent study of BICSI *Information Technology Systems Installation Methods Manual (ITSIMM)*
- Safety and Personal Protective Equipment (PPE)

# Scope of Installer 2, Optical Fiber Certification

Individuals holding the BICSI Installer 2, Optical Fiber® (INSTF®) are skilled at working with structured cabling systems (SCS) and network components. Optical Fiber Installers shall perform duties in compliance with industry best practices, BICSI methodologies, standards, and codes. Optical Fiber Installers may work independently, as part of a team, as a team leader, or under the direction of a professional.

**Installer 2, Optical Fiber experience in installation is defined as:** hands-on experience with code-compliant optical fiber cabling installation which includes preparation of pathways and spaces, integration, cable installation, termination and testing of optical fiber, and field documentation.

## THE FIVE PHASES



## PHASE 1: DECIDE

### Eligibility:

#### Option #1

Six months of verifiable, full-time equivalent structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** have passed the BICSI Installer 1 certificate program.

#### Option #2

One year of verifiable, full-time equivalent structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** attend and successfully complete BICSI's instructor-led, hands-on training in Optical Fiber structured cabling systems (SCS) training\*.

#### Option #3

Two years of verifiable, full-time equivalent Optical Fiber structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** have completed a minimum of 35 hours of documented continuing education in Optical Fiber structured cabling systems which may include training provided by BICSI, manufacturer training, college courses, industry training, and/or vendor training.

\*Exam approval is contingent upon successful completion of the training course.

Structured cabling systems (SCS) experience must be obtained in the following areas:

1. Principles of optical fiber transmission
2. Site surveys
3. Job site safety
4. Interpreting blueprints
5. Installation practices of pathways
6. Planning, pulling, and terminating optical fiber cabling
7. Labeling procedures
8. Grounding and bonding
9. Optical fiber testing and analysis (OTDR, VFL, power meter)
10. Troubleshooting terminology (wave lengths, micro and macro bends, ghosts)
11. Firestopping standards and local codes
12. Field documentation
13. Job evaluation and quality control
14. Upholding BICSI ethics and standards of conduct

### Physical Requirements:

Must be able to distinguish between different colors, distinguish between copper and optical fiber color codes, possess manual dexterity to complete fine motor tasks and possess fine motor skills, stand for extended periods of time, climb ladders, and lift and carry items weighing up to 50 lbs.

## **PHASE 2: PREPARE**

### **BICSI ICT Installer 2, Optical Fiber Exam Blueprint**

BICSI’s credentialing programs are a gold standard in the information and communications technology (ICT) industry. The Installer 2, Optical Fiber credential validates that an installer has mastery of knowledge and skills to perform optical fiber cable installations according to accepted best practices from the ICT cabling installation industry. Every three-to-five years the Registration and Credentials Supervision Committee (RCSC) oversees a job task analysis (JTA) of this credentialing program to ensure the program is current, relevant, and held to the highest standard. Based on this analysis, 10 core competencies were identified as essential to cable installation.

The content below outlines the competency areas covered on the Installer 2, Optical Fiber exam.

### **BICSI ICT INSTALLER 2, OPTICAL FIBER EXAM CONTENT OUTLINE**

<b>AREA OF EXPERTISE</b>	<b>% OF EXAM</b>
<b>Conduct Field Planning, Implementation, and Design</b>	<b>15%</b>
<ul style="list-style-type: none"> <li>• Identify and distinguish properties and types of fiber</li> <li>• Interpret blueprints</li> <li>• Inventory job supplies and materials</li> <li>• Verify and comply with site safety plan</li> <li>• Perform labeling according to a labeling scheme</li> </ul>	
<b>Establish Pathways and Space</b>	<b>28%</b>
<ul style="list-style-type: none"> <li>• Build telecommunication spaces (e.g., TRs, ERs, EFs, TEs)</li> <li>• Install bonding infrastructure</li> <li>• Install cable support systems</li> <li>• Prepare telecommunication outlet at wall</li> <li>• Install cut-in rings (cavity box)</li> <li>• Prepare telecommunication outlet at floor</li> <li>• Prepare telecommunication outlet at utility column and/or modular furniture</li> <li>• Prepare telecommunication outlet at other locations (e.g., ceilings, hazardous, exterior)</li> <li>• Install sleeves, cores, and slots</li> <li>• Install poke throughs</li> <li>• Install cable trays, ladder racks and continuous cable support systems</li> <li>• Install non-continuous cable supports</li> <li>• Install raceways</li> <li>• Install cable supports systems under the floor</li> <li>• Install inner duct for fiber (ENT)</li> <li>• Install firestop and/or smoke barrier system</li> </ul>	

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## BICSI ICT INSTALLER 2, OPTICAL FIBER EXAM CONTENT OUTLINE (CONTINUED)

AREA OF EXPERTISE	% OF EXAM
<b>Pull Fiber Cable</b>	<b>14%</b>
<ul style="list-style-type: none"><li>• Perform cable pulling setup</li><li>• Install pull string or rope in conduit</li><li>• Pull horizontal telecommunication outlet cable (conduit)</li><li>• Pull horizontal telecommunication outlet cable in open ceiling</li><li>• Pull backbone--riser from top down</li><li>• Pull backbone--riser from bottom up</li><li>• Pull backbone--horizontal backbone</li><li>• Pull cable--fiber specific</li><li>• Install air-blown or air-assist fiber</li></ul>	
<b>Terminate Fiber Cable</b>	<b>14%</b>
<ul style="list-style-type: none"><li>• Perform pre-termination functions</li><li>• Install correct connecting hardware for fiber terminations</li><li>• Perform fiber termination</li></ul>	
<b>Perform Splicing</b>	<b>5%</b>
<ul style="list-style-type: none"><li>• Perform fiber splicing (e.g., fusion, mechanical)</li></ul>	
<b>Test Fiber Cable</b>	<b>6%</b>
<ul style="list-style-type: none"><li>• Perform fiber cable test at Tier 1 certification (power meter)</li><li>• Perform Tier 2 fiber testing using OTDR (Optical Time Domain Reflectometer)</li></ul>	
<b>Perform Troubleshooting</b>	<b>6%</b>
<ul style="list-style-type: none"><li>• Perform fiber cable basic troubleshooting (e.g., power meter or VFL)</li><li>• Perform fiber cable advanced troubleshooting using OTDR</li></ul>	
<b>Perform Retrofits</b>	<b>4%</b>
<ul style="list-style-type: none"><li>• Identify active circuits</li><li>• Perform cutover</li><li>• Remove abandoned cable</li></ul>	
<b>Apply Concepts of Integration and/or Convergence to Scope of Work</b>	<b>5%</b>
<ul style="list-style-type: none"><li>• Apply concepts of physical network topologies and/or systems</li><li>• Apply concepts of network components</li><li>• Install wireless systems</li><li>• Install structure cabling system (SCS) and/or outside plant (OSP) to support installation of passive optical network (PON)</li><li>• Provide structure cabling system (SCS) to support installation of other systems (e.g., paging, sound masking, clock, nurse call, BAS, life safety, elevator)</li></ul>	
<b>Codes and Standards</b>	<b>3%</b>
<ul style="list-style-type: none"><li>• Adhere to local, state, and federal fire and/or building codes and/or standards</li></ul>	

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### Examination

The Installer 2, Optical Fiber exam is currently based on BICSI's *ITSIMM* and is a two-part exam – hands-on and written. To become a BICSI Installer 2, Optical Fiber, you must successfully pass both parts.

### Hands-On Examination

The Installer 2, Optical Fiber hands-on exam is given the last day of the IN250 course, which is generally on a Friday afternoon (see course schedule). The hands-on performance exam consists of completing six tasks to industry standards, within a 20-minute per-task time limit. Proctors will give the pass/fail results after each task. If you fail to successfully complete one of the hands-on exam tasks, you will be given the opportunity to retest after each task on the same day at no additional cost. If you fail the same task twice or fail a total of two hands-on tasks, the hands-on exam will need to be retaken on another date.

### Written Examination

The written exam can ONLY be taken after the hands-on exam has been completed successfully. The computer-based exam is two hours in length and consists of 100 questions drawn from BICSI's *ITSIMM*. The exam is multiple choice, with questions based on both knowledge and application.

### Exam Specifics

Number of Questions ..... 100

Allotted Examination Time ..... 2 hours

### Suggested Study:

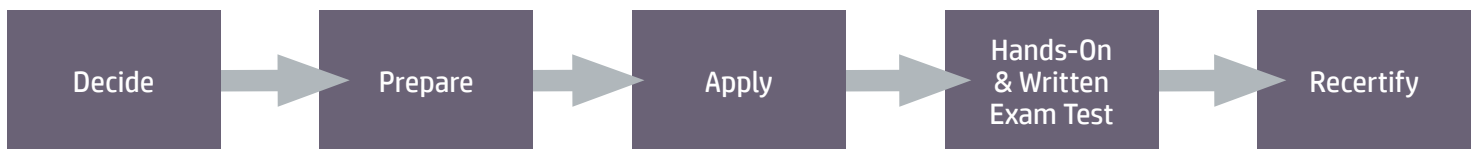
- Attend IN101: BICSI Installer 1 Training
- Attend IN250: BICSI Installer 2, Optical Fiber Training
- 50 hours of independent study of BICSI *Information Technology Systems Installation Methods Manual (ITSIMM)*
- Training on mechanical, nonmechanical, and fusion splicing.
- Safety and Personal Protective Equipment (PPE) training

# Scope of Technician Certification

A BICSI Technician® (BICSI TECH™) is a specialist skilled at working with complex systems who performs highly technical installations and diagnostic testing on structured cabling systems (SCS) and network components. Technicians must perform duties in a professional manner in accordance with industry best practices. Technicians may work independently, as part of a team, as a team leader, or under the direction of a professional.

**Technician experience in installation is defined as:** specialized skills, responsibility, experience, leadership, and professionalism in structured cabling systems (SCS). This includes copper systems, optical fiber systems, and integration of communication systems.

## THE FIVE PHASES



### PHASE 1: DECIDE

**Eligibility:**

Option #1

One year of verifiable, full-time equivalent structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** hold a certificate of course completion for BICSI's instructor-led, hands-on training in Copper and Optical Fiber structured cabling systems (SCS).

Option #2

Two years of verifiable, full-time equivalent structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** attend and successfully complete BICSI's instructor-led, hands-on Technician training in structured cabling systems (SCS) training\*.

Option #3

Three years of verifiable, full-time equivalent structured cabling systems (SCS) field experience which may be obtained on the job, in a trade school, or in an apprenticeship program **AND** have completed a minimum of 35 hours of documented continuing education in Copper and Fiber structured cabling systems which may include training provided by BICSI, manufacturer training, college courses, industry training, and/or vendor training.

Option #4

Hold the BICSI Installer 2 credential or hold both the BICSI Installer 2, Copper and Installer 2, Optical Fiber credentials.

\*Exam approval is contingent upon successful completion of the training course.

Structured cabling systems (SCS) and network integration experience must be performed in the following areas:

1. Principles of copper/optical fiber transmission
2. Developing and implementing a work plan
3. Principals of installation best practices
4. Integrating network topologies
5. Coordination with other construction trades and applicable parties
6. Site surveys
7. Job site safety
8. Interpreting blueprints
9. In-depth knowledge of structured cabling systems installation
10. Grounding and bonding
11. Copper/Optical Fiber cable testing and troubleshooting
12. Firestopping standards and local codes
13. Closeout documentation
14. Job evaluation and quality control
15. Upholding BICSI ethics and standards of conduct

**Physical Requirements:**

Must be able to distinguish between different colors, possess manual dexterity to complete fine motor tasks, stand for extended periods of time, climb ladders, and lift and carry items weighing up to 50 lbs.

## **PHASE 2: PREPARE**

### **BICSI ICT Technician Exam Blueprint**

BICSI’s credentialing programs are a gold standard in the information and communications technology (ICT) industry. The BICSI Technician credential validates that an installer has mastery of knowledge and skills to perform cable installations according to accepted best practices from the ICT cabling installation industry. Every three-to-five years the Registration and Credentials Supervision Committee (RCSC) oversees a job task analysis (JTA) of this credentialing program to ensure the program is current, relevant, and held to the highest standard. Based on this analysis, 10 core competencies were identified as essential to cable installation.

The content below outlines the competency areas covered on the BICSI Technician exam.

### **BICSI ICT TECHNICIAN EXAM CONTENT OUTLINE**

<b>AREA OF EXPERTISE</b>	<b>% OF EXAM</b>
<b>Conduct Field Planning, Implementation, and Design</b>	<b>20%</b>
<ul style="list-style-type: none"> <li>• Identify and distinguish properties and types of copper cable</li> <li>• Identify and distinguish properties and types of fiber</li> <li>• Perform site survey (pre-construction)</li> <li>• Interpret blueprints</li> <li>• Develop job plan (pre-construction)</li> <li>• Inventory job supplies and materials</li> <li>• Verify and comply with site safety plan</li> <li>• Perform labeling according to a labeling scheme</li> <li>• Perform site survey (onsite start-up)</li> <li>• Closeout a job</li> </ul>	
<b>Establish Pathways and Space</b>	<b>20%</b>
<ul style="list-style-type: none"> <li>• Build telecommunication spaces (e.g., TRs, ERs, EFs, TEs)</li> <li>• Install bonding infrastructure</li> <li>• Install cable support systems</li> <li>• Prepare telecommunication outlet at wall</li> <li>• Install cut-in rings (cavity box)</li> <li>• Prepare telecommunication outlet at floor</li> <li>• Prepare telecommunication outlet at utility column and/or modular furniture</li> <li>• Prepare telecommunication outlet at other locations (e.g., ceilings, hazardous, exterior)</li> <li>• Install sleeves, cores, and slots</li> <li>• Install poke throughs</li> <li>• Install cable trays, ladder racks and continuous cable support systems</li> <li>• Install non-continuous cable supports</li> <li>• Install raceways</li> <li>• Install cable supports systems under the floor</li> <li>• Install inner duct for fiber (ENT)</li> <li>• Install firestop and/or smoke barrier system</li> </ul>	

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## BICSI ICT TECHNICIAN EXAM CONTENT OUTLINE (CONTINUED)

AREA OF EXPERTISE	% OF EXAM
<b>Pull Copper and Fiber Cable</b>	<b>12%</b>
<ul style="list-style-type: none"><li>• Perform cable pulling setup</li><li>• Install pull string or rope in conduit</li><li>• Pull horizontal telecommunication outlet cable (conduit)</li><li>• Pull horizontal telecommunication outlet cable in open ceiling</li><li>• Pull backbone--riser from top down</li><li>• Pull backbone--riser from bottom up</li><li>• Pull backbone--horizontal backbone</li><li>• Pull cable--fiber specific</li><li>• Install air-blown or air-assist fiber</li></ul>	
<b>Terminate Copper and Fiber Cable</b>	<b>12%</b>
<ul style="list-style-type: none"><li>• Perform pre-termination functions</li><li>• Install correct connecting hardware for copper and fiber terminations</li><li>• Perform copper IDC termination (multi-pair)</li><li>• Perform copper IDC termination (four-pair)</li><li>• Perform coax termination</li><li>• Perform copper crimp termination--modular plugs</li><li>• Perform fiber termination</li></ul>	
<b>Perform Splicing</b>	<b>6%</b>
<ul style="list-style-type: none"><li>• Perform fiber splicing (e.g., fusion, mechanical)</li><li>• Perform copper splicing</li></ul>	
<b>Test Copper and Fiber Cable</b>	<b>7%</b>
<ul style="list-style-type: none"><li>• Perform copper cable testing</li><li>• Perform fiber cable test at Tier 1 certification (power meter)</li><li>• Perform Tier 2 fiber testing using OTDR (Optical Time Domain Reflectometer)</li></ul>	
<b>Perform Troubleshooting</b>	<b>7%</b>
<ul style="list-style-type: none"><li>• Perform copper cable troubleshooting</li><li>• Perform fiber cable basic troubleshooting (e.g., power meter or VFL)</li><li>• Perform fiber cable advanced troubleshooting using OTDR</li></ul>	
<b>Perform Retrofits</b>	<b>5%</b>
<ul style="list-style-type: none"><li>• Perform site survey (retrofit)</li><li>• Identify active circuits</li><li>• Perform cutover</li><li>• Remove abandoned cable</li></ul>	

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## BICSI ICT TECHNICIAN EXAM CONTENT OUTLINE (CONTINUED)

### AREA OF EXPERTISE

% OF EXAM

#### Apply Concepts of Integration and/or Convergence to Scope of Work

7%

- Apply concepts of physical network topologies and/or systems
- Apply concepts of network components
- Install security systems and alarm systems
- Install wireless systems
- Install Distributed Antenna System (DAS) systems
- Install structure cabling system (SCS) and/or outside plant (OSP) to support installation of passive optical network (PON)
- Provide structure cabling system (SCS) to support installation of other systems (e.g., paging, sound masking, clock, nurse call, BAS, life safety, elevator)

#### Codes and Standards

4%

- Adhere to local, state, and federal fire and/or building codes and/or standards

### Examination

The Technician exam is currently based on BICSI's *ITSIMM* and is a two-part exam – hands-on and written. To become a BICSI Technician, you must successfully pass both parts.

### Hands-On Examination

The hands-on performance exam consists of completing 12 tasks to industry standards, within a 20-minute per-task time limit. Proctors will give the pass/fail results after each task. If you fail to successfully complete one of the hands-on exam tasks, you will be given the opportunity to retest on that task on the same day at no additional cost, time permitting. If you fail the same task twice or fail a total of two hands-on tasks, the hands-on exam will need to be retaken at another date.

### Written Examination

The written exam can ONLY be taken after the hands-on exam has been completed successfully. The computer-based exam is two hours in length and consists of 100 questions drawn from BICSI's *ITSIMM*. The exam is multiple choice, with questions based on both knowledge and application.

### Exam Specifics

Number of Questions .....100

Allotted Examination Time .....2 hours

### Suggested Study:

- Attend IN101: BICSI Installer 1 Training
- Attend IN225: BICSI Installer 2, Copper Training
- Attend IN250: BICSI Installer 2, Optical Fiber Training
- Attend TE350: BICSI Technician Training
- Complete at least 50-100 hours of independent study of BICSI's *ITSIMM*
- Training in Safety and Personal Protective Equipment (PPE)
- Training in firestopping
- Training in optical fiber splicing and termination
- Training in copper splicing and termination

OR

- Complete at least 100 hours of independent study of BICSI's *ITSIMM*
- Training in Safety and Personal Protective Equipment (PPE)
- Training in firestopping
- Training in optical fiber splicing and termination
- Training in copper splicing and termination



# Certification and Recertification

Certification is awarded for a period of three years; installers and technicians must recertify every three years.

Recertification by professional development (continuing education in ICT) and/or examination.

CECs must be earned within the recertification cycle in accordance with the requirements set forth in the CEC Program.

## Installer/Technician Recertification Requirements:

Maintain 3-year recertification cycle

- **15** CECs in ICT for Installer 2, Copper
- **15** CECs in ICT for Installer 2, Optical Fiber
- **18** CECs in ICT for Technician

# Exam Copyright and Development

## Exam Copyright

All exam questions are the copyrighted property of BICSI. Any attempt to reproduce all or part of an exam is strictly prohibited by law. Such attempts include, but are not limited to, removing materials from the exam room, aiding others in reconstructing any portion of an exam by any means, or selling, distributing, receiving, or having unauthorized possession of any portion of an exam. Alleged copyright violations will be investigated and, if warranted, prosecuted to the fullest extent of the law. It should also be noted that exam scores might be invalidated in the event of this type of suspected breach.

## HOW EXAMS ARE DEVELOPED

BICSI follows credentialing best practices to create and update the exams offered. Practicing ICT professionals are involved in every step of the exam development process, facilitated by expert testing organizations. The following are the steps taken in developing the Installation exams:

- BICSI conducts a JTA every three-to-five years of the cabling installation profession and makes modifications and upgrades as part of the best practices for the credentialing program. The exam is developed from the Exam Content Outline created out of the JTA and then validated by a large group of ICT cabling installation Subject Matter Experts (SMEs).
- A team of ICT cabling installation professionals who currently hold an installation credential write the exam questions, based on the Exam Content Outline.
- The questions are reviewed via a three-step quality control process.
- Multiple exam forms are created and validated by a team of ICT professionals who hold an installation credential. These SMEs participate in a standard-setting study led by expert test development professionals.
- BICSI conducts a scheme alignment study facilitated by expert test development professionals to determine exam qualifications/prerequisites and recertification requirements. A select group of SMEs who hold an installation credential participate in this study.



## PHASE 3: APPLY

### Application Process

The following items must be completed and submitted to BICSI on your BICSI online profile:

- A fully completed online Installation Exam Application.
- If applicable, a copy of degrees, diplomas, and/or certifications.

### Application Processing

Your exam application must be submitted within seven days of your hands-on exam date. We cannot guarantee that exam applications submitted less than seven days in advance will be processed in time for you to take the exam.

Fees	PRICES*	DETAILS
<b>Exam Application Fee</b> (Paid to BICSI)	\$335 - BICSI Member \$400 - Nonmember	<p><b>Fees include:</b>                      Processing of exam application, first attempt hands-on exam fee, first attempt written exam fee, registration and testing with Pearson VUE, exam score report for unsuccessful attempts, downloadable certificate and digital credential once certification is achieved.</p> <p><b>Fees do not include:</b>                      Installation courses, manuals, study support fees, traveling expenses to and from hands-on exam, traveling expenses to and from Pearson VUE testing center, or retest fees.</p>
<b>Exam Retest Fee</b>	\$135 - BICSI Member \$200 - Nonmember	Fee applies to hands-on exam retest after an unsuccessful attempt OR written exam retest with Pearson VUE.
<b>Virtual Walk-In Exam Fee**</b>	\$135 - Installer 1 \$185 - Installer 2, Copper	<p><b>Fees include:</b>                      Scheduling of a hands-on exam with a BICSI Training Delivery Specialist and shipment of a hands-on exam materials kit.</p>

\*Pricing is listed in U.S. dollars and subject to change without notice. Vouchers for exam fees may be provided to you by BICSI if necessary.

\*\*For INSTF and TECH walk-in exam options, please email [credentialing@bicsi.org](mailto:credentialing@bicsi.org)

### Payment Methods

PAYMENT TYPE	METHOD FOR SENDING PAYMENT
Credit card	On your BICSI profile or over the phone.
Check or money order	Postal mail to BICSI.
Wire transfer	Email <a href="mailto:credentialing@bicsi.org">credentialing@bicsi.org</a> for wire transfer details.

### **Incomplete Applications**

Exam candidates whose application is submitted without all the requirements will receive an email outlining what information is missing and when it is due. The missing information must be submitted by the due date or the application will be considered incomplete and will not be accepted. The exam application fee will be forfeited.

### **Application Denials**

An application will not be approved, and/or the candidate's authorization to test may be revoked for any of the following reasons:

- Failure to meet the minimum eligibility requirements
- Application is incomplete
- Falsification of information on the application
- Misrepresentation of work experience or other information on the application
- Violation of testing policies and procedures

### **Refund Policy**

Application fees are not refundable or transferable for applications, including those found to be ineligible.

### **Legal Name**

When submitting your application use your full legal name as it appears on your unexpired, valid, government-issued official identification documentation. This is the name that the proctor/testing administration site will use to verify your exam on your exam day. This is also the name that will appear on your official certification once you successfully pass the exam.

### **Eligibility Dates**

Your application is valid for one year from the date of your first hands-on exam attempt. This is referred to as your eligibility date in your Exam Authorization Letter.

### **Waiting Period**

During any exam eligibility period (one year from the date of application approval), there is a 30-day waiting period between each unsuccessful exam attempt. After a third unsuccessful attempt, a 90-day waiting period will begin. You may be allotted additional attempts after the 90-day waiting period if your exam eligibility period is still valid.

Each exam retest requires the appropriate exam retest fee. If you do not pass the exam within your exam eligibility period, you can reapply for the exam by submitting a new application.

### **Terms and Conditions**

You must agree to the following statements:

- I agree to inform BICSI, without delay, of matters that can affect my capability to continue to fulfill the certification requirements.
- In the event of a credential suspension, I will refrain from any use and/or further promotion of the certification while it is suspended.
- In the event of withdrawal or revocation of the credential, I will refrain from use of all references to a certified status.
- I will make claims regarding certification only with respect to the scope for which certification has been granted.
- I will not use the certification in such a manner as to bring BICSI into disrepute, and not make any statement regarding the credential which BICSI considers misleading or unauthorized.
- I will not use my certification status or the credential in a misleading manner.
- I certify that I will not provide, receive, or release any confidential exam information and/or materials (including, but not limited to: recording, copying, disclosing, sharing, publishing, or otherwise transmitting exam information by any means and for any purpose) or participate in fraudulent test-taking practices.

### PHASE 4: TEST

#### Request for Special Accommodations

BICSI complies with the Americans with Disabilities Act (ADA) and shall ensure no individual is deprived of the opportunity to take a BICSI certification examination solely by reason of a disability as defined under the ADA. Candidates must submit a written request and recent (within the last three years) supporting documentation related to disability needs. The request and supporting documentation must be received at least 30 calendar days prior to the examination. Requests for special testing accommodations require documentation of a formally diagnosed and qualified disability by a qualified professional who has provided evaluation or treatment for the candidate.

#### Appeal of Denial of Request for Special Accommodations

Candidates who are denied their request for Special Accommodations may file an appeal. See BICSI Credential's Appeals Process, page 34.

#### How to Schedule

BICSI partners with Pearson VUE to deliver the installation exam in a computer-based testing format. Pearson VUE will notify you of any changes to test site availability due to bad weather, technical issues, or other unscheduled events.

Once your application is approved, you will receive a BICSI Exam Authorization Letter by email confirming your approval. The authorization letter includes your candidate ID, first attempt exam fee voucher, as well as scheduling information.

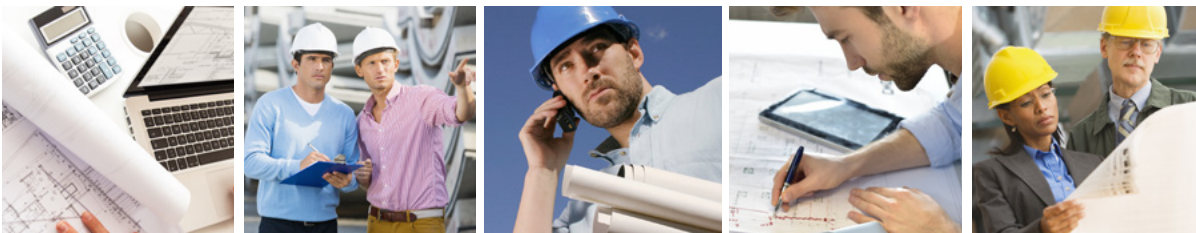
You are not able to take your written installation exam until after you have successfully passed the hand-on exam. We encourage you to schedule your written exam appointment for a date after your hands-on exam as soon as you feel ready to take the exam. Scheduling early increases the chance you will receive your preferred testing date, time, and location.

When scheduling an appointment, have the following information available:

- Your name exactly as it appears on your valid, unexpired government-issued ID
- Your candidate ID number
- The name of your exam sponsor (BICSI)
- The exam for which you are approved
- Your preferred appointment date, time, and location
- First attempt exam fee voucher

To schedule online, visit [pearsonvue.com/bicsi](https://pearsonvue.com/bicsi) and click on “create an account” or “sign in” if you already have a Pearson VUE account.

You can also schedule by phone. To do so, call 888.602.6941. International phone numbers may vary. Please refer to the Pearson VUE website for alternate numbers, if needed.



**Rescheduling or Cancellation Policy**

You must contact Pearson VUE at least one business day prior to your scheduled appointment if you would like to reschedule or cancel your testing appointment. Rescheduling or canceling less than one full business day prior to your appointment may result in forfeiting your exam fees.

**Exam Fee**

Your first attempt exam fee is included in your application fee and is paid directly to BICSI. The first attempt exam fee includes: your first attempt hands-on exam, registration and testing with Pearson VUE, and an exam score report for unsuccessful attempts. In the event you are unsuccessful, exam retest fees apply and are paid directly to Pearson VUE.

**Exam Identification and Conduct Requirements**

The installation certification exams are administered in highly secure testing centers. All exam candidates will be required to provide proof of identity with an unexpired, original government-issued photo ID with signature, such as a driver's license, passport, or military ID.

You will be required to provide a secondary ID. The name and photo on the primary or secondary ID must exactly match the name on the candidate's Exam Authorization Letter. The following are acceptable forms of secondary identification:

- Valid employer identification card
- Valid credit card with signature
- Valid bank card with photo

**Examples of Acceptable Names on Required ID**

<b>NAME ON APPLICATION</b>	<b>NAME ON ID</b>	<b>ADMITTED TO TEST</b>
Mohammed Saeed	Saeed Mohammed	Yes
Christine Reynolds	Christine White	No
William Rice	Bill Rice	Yes
T.J. Coleman	Thomas J Coleman	Yes
Tanya L. Sullivan	Tanya Lee Sullivan	Yes

Trained Pearson VUE proctors will supervise the exam. Irregularities observed or suspected by the proctors, or identified by subsequent statistical analysis of your answers on the exam, may result in your removal from participation in the exam or invalidation of your score. Irregularities include, but are not limited to, creating a disturbance, giving or receiving unauthorized information or aid to or from other examinees, or attempting to remove materials from the testing room. BICSI reserves the right to investigate each incident of misconduct or irregularity.

Candidates must be able to use a computer and mouse.

Candidates are not allowed to bring any items into the testing room (phones, watches, hats, etc.). All necessary items will be available during the exam, including calculators and a whiteboard for scratch paper.

There are no scheduled breaks during the exam. If a break is needed, the break will count toward the two hours you have to complete the exam.

### Confidentiality

All exam questions are the copyrighted property of BICSI. It is forbidden under federal copyright law to copy, reproduce, record, distribute, display, or share these examination questions by any means, in whole or in part.

New credential holders will be listed, by name only, in BICSI publications. Please contact us immediately if you wish to be excluded. Exam (pass/fail) results are confidential and will not be disclosed to anyone without candidate consent, unless directed by valid and lawful subpoena or court order.

When you submit your installation exam application, you agree to abide by the BICSI Terms and Conditions (found on page 25 of this handbook). Among other things, the Terms and Conditions address post-examination questions and discussions. It states: **“...I certify that I will not provide, receive, or release any confidential examination information and/or materials (including, but not limited to: recording, copying, disclosing, sharing, publishing, or otherwise transmitting exam information by any means and for any purpose) or participate in fraudulent test-taking practices.”**

Any such discussion would be a potential violation of the BICSI Terms and Conditions and could affect the status of your credential, up to and including revocation of your credential or permanent suspension from any BICSI credential exams.

### Passing Score

The installation exam is designed to identify candidates with proficiency in the necessary competencies and knowledge that drives success in the ICT industry. The passing score for the installation exam is determined by sound psychometric analysis. The passing score is established through a process called standard-setting, during which a selected panel of experts from the ICT field conduct a systematic evaluation of the test content. The panel discusses the qualifications for certification and makes a judgment on the level of knowledge an individual needs to be successful on the job. Their expert judgment is translated to a specific passing score on the exam using the statistical Angoff Method, a commonly used method in the credentialing industry. Your performance on the installation exam will be measured against this predetermined standard. Your performance will not be measured against the performance of other individuals.

### Results

After completing the exam, candidates who pass will be notified of their passing status immediately through Pearson VUE. Candidates who are unsuccessful on the exam will be provided a score report. The score report is an explanation of your performance level on each of the topic areas covered on the exam. It is not an actual score. Each section has a different weighting based on the number of questions in each section. One section may have a smaller or larger number of questions than in the other sections. It is meant to provide you with the areas for which you may need some additional study.

### Retest Information

There is a 30-day waiting period between each unsuccessful exam attempt. After a third unsuccessful attempt, a 90-day waiting period will begin. You may be allotted additional attempts after the 90-day waiting period if your exam eligibility period is still valid.

Each exam retest requires the appropriate exam retest fee. If you do not pass the exam within your exam eligibility period, you can reapply for the exam by submitting a new application.

### Comments

If you would like to provide a comment on a specific question on the exam and have it reviewed by the RCSC, you may do so by making a comment in the exam using the comment feature. If you answered the question incorrectly and the committee determines a rescore, changing your final score from fail to pass, BICSI's Credentialing Department will notify you by email within 30 days of your exam. The time spent commenting on questions is allotted in the two hour exam total time and only comments made during the exam will be reviewed.

## PHASE 5: RECERTIFY

STATUS	DEFINITION
Active	The status of a current credential.
Grace Period	The period between expiration of a credential and 90 days post-expiration of that credential.
Inactive Suspended Period	The period after your grace period of 90 days through one year post-expiration of that credential.
Expired	The status of a credential greater than one year from expiration of that credential.
Reinstatement	The RCSC will review and vote on reinstatement requests which have provided documentation of undue hardship preventing recertification during the standard recertification and suspension period.
Re-examination	After a credential has lapsed for greater than one year from the expiration date and has not been approved for reinstatement.

### Installation Credential Registration Period

Your installation credential is valid for three years, with an expiration date of the last day of the month in which the credential was earned. For example, if you earned your installation credential on 15 March 2022, your installation credential expiration date would be 31 March 2025.

### Recertification Requirements

Recertification is an important part of any respected credentialing program and it is required to maintain a certification after passing the exam. Recertification helps to ensure the validity and credibility of the installation credentials. BICSI views learning as a life-long endeavor and places an emphasis upon continuing education as part of maintaining your credential status.

It is the credential holder’s responsibility to ensure that all requirements and conditions for recertification are satisfied and submitted to BICSI prior to the credential period ending. BICSI issues recertification reminders as a courtesy, but it is the credential holder who is ultimately responsible for keeping track of and documenting continuing education credits (CECs) and any other requirements of the recertification process.

Within each three-year designation period, beginning when the exam is passed, all Installer 2, Copper and Installer 2, Optical Fiber credential holders must obtain a minimum of **15** approved CECs to recertify. All Technician credential holders must obtain a minimum of **18** approved CECs to recertify. If you do not recertify by your designation period end date, you may no longer use your installation credential or represent yourself as certified.

The Installer 1 certificate is not renewable. It is recommended that you further your career by advancing to the Installer 2, Copper and/or Installer 2, Optical Fiber credential(s) during your time as an Installer 1.

Recertification Fees	PRICES*	DETAILS
Recertification Fee	\$130 - BICSI Member \$185 - Nonmember	Fee applies to participate in the recertification process. A completed recertification application must be submitted online, along with payment.
Recertification Late Fee	\$75	Fee applies to recertifications completed 6 months to 1 year past the credential expiration date
Reinstatement Fee	\$300	Fee applies to credential reinstatement.

\*Pricing is listed in U.S. dollars and subject to change without notice.



### Recertification Audit

BICSI has implemented a Recertification Audit Policy. Your CEC submissions are subject to random audit no later than 30 days after you recertify your credential.

### ALL CREDENTIAL HOLDERS ARE SUBJECT TO AN AUDIT.

As a credentialing body, BICSI requires certification maintenance to protect the quality and integrity of the certification programs. Knowledge and skills required for competent occupational and professional performance change over time. This maintenance process encourages credential holders to remain current in their field and it increases confidence among the public, employers, and other stakeholders.

BICSI requires those holding a BICSI credential to participate in certification maintenance by adhering to the recertification requirements for the credential and to adhere to the **Continuing Education Credit (CEC) Program** at [bicsi.org/cec](https://www.bicsi.org/cec) in order to retain their certification.

As a BICSI credential holder, you have consented to the policies, processes, and procedures of BICSI's credentialing program which includes the Continuing Education Credit Program and adherence to the terms of the audit process. This means that all CEC documentation has been reviewed by you and that you are acting in accordance to these policies and procedures.

The recertification audit serves as a method to ensure that credential holders are meeting the minimum standards to maintain the knowledge and skills needed to remain current in the field of Information and Communications Technology (ICT) in cable infrastructure and design.

Please continue to submit CECs and supporting documentation as you earn them to easily keep up with the audit process. Please maintain copies of your records for 6 (six) months after recertifying your credential in case you are randomly selected for an audit.







## AFTER BECOMING AN INSTALLATION CREDENTIAL HOLDER

### Use of the Designation

Professionals who have met the certification standards defined by BICSI and who maintain their credential through the recertification process are authorized to use the respective installation designation(s).

Adding your installation credential to your professional profile will draw special attention to your achievement, and to the time and discipline involved in pursuing and attaining your goal. You may include your credential on business cards, in resumes, on your personal web pages, in bylines for articles or blog posts, and in email signatures.

### Digital Credentials

BICSI provides a digital credential to qualified recipients who have successfully passed their BICSI installation and/or design exams, including the INST1, INSTC, INSTF, and TECH, to emphasize visibility and verification of your status. BICSI digital credentials are web-enabled versions of a credential that can be verified in real time, online. Embed in bid documents to easily manage, share, and verify your learning achievements.

### Downloadable Certificate

Access a downloadable certificate of your installation credential via your credential holder dashboard on the BICSI website. Certificates are available for download approximately 24 hours after passing the exam.

### Credential Verification

The names of current credential holders are not considered confidential and may be published by BICSI. Published information may include name, city, state, country, credential held, and certification status. The names of all professionals holding an installation credential will be automatically listed in BICSI's online Verify a Credential Holder Search Directory, searchable by first name, last name, city, state, and country. The Directory facilitates verification of one's certifications by employers, clients, and vendors. It can be found at [bicsi.org/verify](https://www.bicsi.org/verify).

### Records Retention

BICSI retains paper documentation for two years. You must retain copies of all documentation sent to BICSI.



## AFTER BECOMING AN INSTALLATION CREDENTIAL HOLDER

### Recertification Suspension Policy

A suspension period is intended to allow you the opportunity to complete your expired credentials' recertification requirements without the loss of the credential. The expired certification will instead be suspended (invalid) until all recertification requirements have been satisfied as defined below.

The suspension shall be provided automatically after 90 days past the expiration date.

You will receive a notice of expiration and placement into the suspension period. The suspension shall expire **one year** from the certification's original expiration date.

The suspension period **will not** alter the recertification period dates or change the certification's original expiration date. BICSI's website will indicate the credential holder's suspended certification during any suspended period. If proof of the suspension period is required by someone other than the credential holder (i.e., client or employer), you may log into your BICSI profile for status of your certification.

To view the Suspension Policy, in its entirety, as well as the conditions of suspension, please visit the BICSI Credentialing webpage at [bicsi.org/recertify](https://www.bicsi.org/recertify).

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### Reinstatement Policy for Lapsed Credential Holders

Reinstatement of a lapsed credential is allowed under certain circumstances. Eligibility is available to any credential holder who has lapsed recertification for no more than two terms past the credential's original expiration date. The procedures to reacquire your credential are as follows:

#### Option 1

- Retest.

#### Option 2

- Provide documentation for the continued work of an installation performed over the lapsed period.
  - List any ICT training attended during the lapsed period.
- Attend and complete the appropriate BICSI installation course. (Please refer to the Lapsed Policy [here](#)).
- Pay reinstatement fee.

**Reinstatements:** The credential will remain in expired status until the completion of the requirements outlined in this policy. The lapsed credential amnesty reinstatement opportunity is available to a lapsed credential holder one time only. Any future lapsed periods will require a retest to earn certification.

# General Policies and Procedures

## Code of Ethics and Professional Obligations

BICSI has established the Ethics Committee, the Code of Ethics and a list of Professional Obligations to reinforce the Code. The Code of Ethics is as follows: *It is important that the BICSI members and credential holders exhibit the highest principles of ethical and professional behavior in the provision of their products and services associated with the information and communications technology (ICT) industry and in their professional interactions associated with BICSI or BICSI events.*

The below listed [Professional Obligations](#) serve as guidelines to assist members and credential holders to understand the meaning of the Code of Ethics. Adhering to these Professional Obligations will enhance public confidence in the integrity and service of BICSI members and credential holders.

Adherence to the [12 Professional Obligations](#) is mandatory. As a BICSI member and/or BICSI credential holder, I have an ethical and professional obligation to the association, the ICT industry and its consumers. I therefore pledge to:

1. Maintain a high standard of professional conduct.
2. Protect and enhance the reputation of the BICSI organization, the credentialing program, and any credential held, through my actions.
3. Not misrepresent my BICSI credential(s) nor willingly allow others to represent or use my credential(s).
4. Adhere to all relevant codes, laws, ICT industry standards, and BICSI methodologies.
5. Serve all members of the public honestly impartially, providing no substandard service, based on age, race, national origin, color, gender, sexual orientation, disability, or religious belief.
6. Refrain from knowingly misrepresenting or misstating my or any other individual's qualifications, abilities, or accomplishments.
7. Respect a client's decision in the selection of competitive services and continue to offer and provide that client with quality services, when requested.
8. Maintain the confidentiality of privileged information entrusted or known to me by virtue of my profession or position in accordance with all applicable laws and/or agreements.
9. Be accurate and truthful in my dealings with clients and not misrepresent the quality, quantity, cost, availability, or ability of the services I provide.
10. Be accurate, honest, and truthful in the presentation of all educational material or in the preparation of material orders and product availability.
11. Provide unbiased, accurate, and objective assessments for all safety and operational deficiencies that may be discovered during the performance of my services.
12. Refrain from using false and misleading statements or malicious actions that might injure another person's reputation or bring harm to their person or property.

# General Policies and Procedures

## BICSI Credential's Appeal Process

An appeal should be sent to BICSI's Liaison emailed to [credentialing@bicsi.org](mailto:credentialing@bicsi.org), Attn: RCSC Staff Liaison, within 14 calendar days from the date on the denial notification.

When a notification of intent to appeal has been received by the Staff Liaison, the RCSC Appeals Panel will be notified of the intent to appeal. The Staff Liaison will prepare a package of the related data and supporting documents and send to the Appeals Panel, within seven calendar days.

This Appeals Panel shall reach a decision no later than 30 calendar days from the original receipt of the appeal. During the review of an appeal, should a member of the panel have a conflict of interest, that member must recuse themselves and an alternate will be assigned.

## Appeals Panel

The Appeals Panel is comprised of the RCSC Chair, Vice-Chair, Secretary and Staff Liaison (non-voting).

Acts as a primary body to review appeal issues and requests made to the RCSC and may request investigations and/or further research into an issue before making a determination. Panel shall review facts of a denied reinstatement of credential(s), denial of certification exam application or exam challenge.

The Appeals Panel has three (3) options:

- Uphold the original decision.
- Amend the original decision backed by further review.
- Deny the appeal.

All Appeals Panel decisions are considered one-time exceptions and **DO NOT** represent a permanent policy change unless the RCSC subsequently formally approves a permanent change.

## BICSI ANTITRUST STATEMENT

BICSI believes strongly in competition. U.S. antitrust laws are the rules under which our competitive system operates. It is BICSI's policy to comply in all respects with the antitrust laws.

Association meetings or workshops by their very nature bring competitors together. Accordingly, it is necessary to avoid discussions of sensitive topics. Agreements to fix prices, allocate markets, engage in product boycotts and to refuse to deal with third parties are automatically illegal under the antitrust laws. It does not matter what the reason for the agreement might be.

Accordingly, at any association meeting discussions of prices (including elements of prices such as allowances and credit terms), quality ratings of suppliers, and discussions that may cause a competitor to cease purchasing from a particular supplier, or selling to a particular customer, should be avoided. Also, there should be no discussion that might be interpreted as a dividing up of territories.

An antitrust violation does not require proof of a formal agreement. A discussion of a sensitive topic, such as price, followed by action by those involved or present at the discussion is enough to show a price-fixing conspiracy. As a result, those attending an association-sponsored meeting should remember the importance of avoiding not only unlawful activities, but even the appearance of unlawful activity.



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### **For more information:**

[bicsi.org/credentialing](https://bicsi.org/credentialing)

### **Questions:**

Phone: +1 813.979.1991 or 800.242.7405  
(USA & Canada toll-free)

Email: [credentialing@bicsi.org](mailto:credentialing@bicsi.org)