



Cabling Installation Program

Installer 2, Optical Fiber

Exam Application and Information Handbook



***BICSI
ICT Cabling
Installation
Program***

Become a BICSI Installer or Technician

Congratulations on making the decision to advance your career through the BICSI Installation program. Whether you are new to the industry or a 20-year veteran, there is an opportunity that fits your needs.

In this booklet you will find an exam application, along with a list of application requirements and fees, exam information, and a statement of experience (required for application approval). As part of the handbook, we've included the BICSI Code of Ethics, Standard of Conduct, and the BICSI Antitrust Statement.

The goal of BICSI's Cabling Installation Program is to produce highly competent cabling installers in a minimal amount of time and at a reasonable cost. BICSI's Cabling Installation Program provides installers with access to training in the proper and most current methods of installing information and communications technology (ICT) related cabling within the confines of a commercial building structure. Upon successfully passing your exam, you will be globally recognized as being able to conduct site surveys, pull wire/cable, and terminate and test copper and optical fiber cable to the highest level of specification.

The program offers core skills training, and both hands-on and written credentialing examinations to meet the diverse needs of the telecommunications cabling industry. BICSI's program provides varied levels of increased knowledge and experience: Installer 1; Installer 2, Copper; Installer 2, Optical Fiber; and Technician.

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 meeting 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 prices, followed by action by those involved or present 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.

BICSI CODE OF ETHICS

BICSI's Code of Ethics is based on the principles which assume that societies are governed by a profound respect for human rights and the rule of law. In addition, these principles support the thought of ethics, the criteria for determining what is right or wrong, can be agreed upon by members of an organization and that understanding matters of taste requires sensitivity to cultural norms.

An ethics complaint may be filed when there is a concern of violation of the BICSI Standards of Conduct. Information regarding the process for filing an ethics complaint can be found in the Policies and procedures document, available on BICSI's website at bicsi.org.

BICSI STANDARDS OF CONDUCT

BICSI has established the Ethics Committee, the Standard of Conduct and the Code of Ethics to reinforce the following position: It is important that the BICSI members and/or its 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. These codes and standards serve to enhance public confidence in the integrity and service of BICSI members and/or credential holders.

Adherence to the 14 Standards of Conduct is mandatory.

As a BICSI member and/or credential holder, I have an ethical and professional obligation to the association, ICT industry and its consumers. I therefore pledge to:

1. Maintain a high standard of professional and personal conduct.
2. Protect and enhance the reputation of the BICSI organization, the credentialing program and my credential through my actions.
3. Maintain the confidentiality of privileged information entrusted or known to me by virtue of my profession or position, unless disclosure is required by law or agreement.
4. Be accurate and truthful in my dealings with clients and be careful not to misrepresent the quality, availability or ability of the services I provide.
5. Never, under any circumstances, make a recommendation misrepresenting or misstating any other individual's qualifications, abilities or accomplishments.
6. Provide unbiased, accurate and objective assessments for all safety and operational deficiencies that may be discovered during the performance of my services.
7. Refrain from representing competitors to clients, or the public, by the use of false and misleading statements or malicious actions, but rather work and compete with them in a reasonable and professional manner for the benefit and advancement of our profession.
8. 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.
9. Respect a client's decision in the selection of competitive services, and continue to offer and provide that client with quality services for as long as is necessary or requested.
10. Serve all members of the public impartially, providing no substandard service based on that individual's age, race, national origin, color, sex, sexual orientation, disability or religious belief.
11. Adhere to all relevant codes, laws, ICT industry standards and BICSI methodologies, where appropriate.
12. Take personal responsibility to ensure that all requirements necessary for the renewal of any BICSI credential that I hold is met on, or before, the expiration date.
13. Be accurate, honest and truthful in the presentation of all educational material or in the preparation of material orders and product availability.
14. I will not misrepresent my BICSI credential nor willingly allow others to do so.

By signing, I am confirming that I have read the BICSI Code of Ethics and the BICSI Standards of Conduct and agree to adhere to them.

Print name

Signature

Date signed

BICSI Installer 2, Optical Fiber Examination and Credentialing Information

Experience and Knowledge Requirements

Individuals preparing to sit for the Installer 2, Optical Fiber exam must possess at least two years of verifiable ICT industry installation experience within the last five years.

Participants sitting for the Installer 2, Fiber exam 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 50lbs.

It is strongly recommended that examinees:

- Complete at least 50 hours of independent study of BICSI's *Information Technology Systems Installation Methods Manual (ITSIMM)*
- Attend the IN250: Installer 2, Optical Fiber Training course

Examination Application Process

A complete exam application and a non-refundable application fee must be received by BICSI's Credentialing Department for review and processing no later than 15 business days prior to the exam date. An exam application may be expedited if received 7-14 business days prior to the exam date. The final exam application and fee deadline is seven business days prior to the exam date. Exam applications will not be processed after the deadline. After the exam application is approved, it is valid for one year. Apply online at www.bicsi.org.

Examination

The Installer 2, Optical Fiber exam is currently based on the 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 on site. 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 two hands-on tasks, the hands-on exam will need to be retaken on another date.

Written Examination

The exam is 120 minutes 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.

Examination Fees

| | | | |
|--|---------------------------------|---|-------|
| Application Fee (non-refundable) | \$335 | Recertification Late Fee (91-120 days) | \$95 |
| Exam Retake Fee (for each part) | \$135 | Recertification Late Fee (121-364 days) | \$125 |
| Recertification Fee (online) | \$130 Member \$140 Nonmember | Application fees must be paid before submitting application online. accompany application. Application prices are listed in U.S. dollars. | |
| Recertification Fee (paper)..... | \$155 Member \$165 Nonmember | | |

Application fees must be paid before submitting application online. Application prices are listed in U.S. dollars.

After Passing the Installer 2, Optical Fiber Exam

Once you successfully pass both the hands-on and written exam, your credential will be valid for three full years from the date that you passed the last portion of the exam. Within 30-45 business days of passing the exam, you will be mailed a congratulations letter and a certificate suitable for framing.

Suggested Program Advancement

It is recommended that you further your career by advancing to the Installer 2, Copper and/or Technician credential(s) (dependent upon experience) during the time you are a BICSI Installer 2, Optical Fiber. Additional information can be found at www.bicsi.org/credentialing.

Recertification Requirements

In order to maintain your credential, there are required benchmarks to accomplish during each three-year registration/recertification period. The following must be completed and received by the Credentialing Department on or before your credential expiration date:

1. Proof of completion of 15 continuing education credits (CECs)
2. Completed recertification form
3. Recertification Fee

BICSI Installer 2, Optical Fiber Exam Content Outline

BICSI's credentialing programs are a gold standard in the information & communications technology (ICT) industry. The Installer2, Optical Fiber credential validates that an installer has mastery of knowledge and skills to perform fiber cable installations according to accepted best practices from the ICT cabling installation industry. Every three to five years the Registration and Credential 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, 11 core competencies were identified as essential to fiber cable installation.

The content below outlines the competency areas covered on the Installer 2, Fiber exam that took effect in 2017.

| | Area of Expertise | % of Exam |
|----------|---|---------------|
| A | General Knowledge, Planning and Field Engineering | 11-12% |
| | Demonstrate knowledge of types of fiber | |
| | Interpret blueprints | |
| | Verify and comply with with site safety plan | |
| | Perform labeling according to a labeling scheme | |
| | Perform site survey (onsite start-up) | |
| B | Pathways and Space | 26-27% |
| | Build closets, telecom rooms, entrance facilities, equipment rooms and data centers | |
| | Install grounding infrastructure | |
| | Install cable support systems | |
| | Prepare station location—wall | |
| | Prepare station location—floor | |
| | Prepare station location—Power Pole/Modular Furniture | |
| | Install fire stop | |
| | Install sleeves | |
| | Install cable trays, ladder racks and continuous cable support systems | |
| | Install surface raceways | |
| | Install cable supports when cable is under the floor | |
| | Install poke throughs | |
| | Install cut-in rings (cavity box) | |
| | Install inner duct for fiber | |
| C | Pulling Cable | 14-15% |
| | Perform cable pulling setup | |
| | Pull horizontal station cable (conduit) | |
| | Pull horizontal station cable open ceiling | |
| | Pull backbone—riser from top down | |
| | Pull backbone—riser from bottom up | |
| | Pull backbone—horizontal backbone | |
| | Pull cable—fiber specific | |

| | Area of Expertise, cont. | % of Exam |
|----------|---|------------------|
| D | Terminating Cable | 8-9% |
| | Perform pre-termination functions | |
| | Install correct connecting hardware for copper and fiber terminations | |
| | Perform fiber termination | |
| E | Perform Splicing | 2-3% |
| | Perform fiber splicing (fusion or mechanical) | |
| F | Testing Cable | 5-6% |
| | Perform fiber cable test at Tier 1 certification (power meter) | |
| | Perform Tier 2 fiber testing using Optical Time Domain Reflectometer (OTDR) | |
| G | Perform Troubleshooting | 2-3% |
| | Perform fiber cable basic troubleshooting (power meter or VFL) | |
| H | Perform Retrofits | 2-3% |
| | Perform site survey (retrofit) | |
| | Remove abandoned cable | |
| I | Integration/Convergence | 9-10% |
| | Demonstrate basic knowledge of physical network topologies | |
| | Demonstrate basic knowledge of network components | |
| | Demonstrate knowledge of installing wireless systems | |
| | Demonstrate knowledge of DAS systems | |
| | Demonstrate knowledge of Passive Optical LAN (POL) | |
| K | Codes and Standards | 7-8% |
| | Adhere to local, state and federal fire/building codes/standards | |
| | Demonstrate basic knowledge of NEC, NFPA, ADA and OSHA codes | |
| | Demonstrate basic knowledge of TIA, ANSI, IEEE and BICSI standards | |
| L | Data Centers | 3-4% |
| | Install cable for new data centers | |
| | Demonstrate knowledge of unique layout and configurations of data centers | |

BICSI Cabling Installation Examination Policies

Exam Retest Policy

For an examinee that needs to retake the exam, 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. At that time, they will be required to test on both the hands-on and written exams, at a BICSI scheduled event.

Unsuccessful candidates will receive a score report. The score report will reflect a percentage of correct answers in each section of the exam, not an actual score.

Retake Option 1: Paper/pencil exam conducted at a participating Authorized Training Facility (ATF).

- Visit bicsi.org/ATF for a list of ATF locations.
- To schedule a paper/pencil examination please visit bicsi.org or call BICSI at +1 813.979.1991 or 800.242.7405 (USA & Canada toll-free).

Retake Option 2: Electronic exam conducted at a participating Pearson VUE testing center.

- Examinees **must pass the hands-on exam to be eligible to retake the written portion of the exam through a Pearson VUE testing center.**
- Examinees who choose this option will receive a letter (via email and mail) explaining how to register with Pearson VUE.

- Retake fees will be collected by Pearson VUE when the examinee registers for their exam date. Other currencies are available for re-take testing only through Pearson VUE's website. Only credit cards are accepted for exam fees through Pearson VUE.

Reschedule/Cancellation Policy

Computer-based Testing

If you wish to reschedule or cancel your exam, you must contact Pearson VUE at least one business day prior to your scheduled appointment. Rescheduling or cancelling less than one full business day prior to your appointment may result in forfeiting your exam fees.

Paper/pencil Testing

If you wish to reschedule your exam, you must contact BICSI at least six business days prior to the exam date. Rescheduling less than six business days prior to your appointment may result in forfeiting your exam fees. Rescheduling requests must be written and submitted to BICSI via email at credentialing@bicsi.org or by fax to +1 813.769.1843.