
BICSI AUTHORIZED

TRAINING FACILITY

PROGRAM

Become a recognized provider of BICSI's ITS Cabling Installation Program at YOUR organization.

Help expand industry knowledge and enhance the credibility and success of ITS professionals in your community.



advancing information technology systems

Share the knowledge with your community. Make a difference in the industry.

As the leader in information technology systems (ITS) education, BICSI® strives to make its high-quality, vendor-neutral education available to as many industry professionals as possible.

In addition to providing open-enrollment classroom training at BICSI's Tampa headquarters, conferences and hotels, and event centers around the world, BICSI also offers qualified organizations the opportunity to become BICSI Authorized Training Facilities (ATFs), so that they may help expand access to world-class training programs.

A BICSI Authorized Training Facility is a BICSI-approved site using the same quality curriculum, classroom equipment and materials offered in a BICSI-conducted class. The Authorized Training Facility's individual trainers must also be certified by BICSI.

This replication of a BICSI classroom environment ensures the same quality training you would expect at a course taught by BICSI, while extending access to a variety of convenient locations, and in many instances, saving the student costly travel fees and time away from the job site.

Discover how you can share the knowledge and make a difference!



Becoming an Authorized Training Facility (ATF) is your opportunity to offer BICSI's ITS Cabling Installation Program to your staff and/or the public, worldwide. Any organization is invited to apply, and will be required to demonstrate that they have met all classroom/lab specifications (detailed requirements are outlined on pages 8-14).

The ATF Program incorporates many benefits for participating organizations and their certified trainers, including:

- Additional networking opportunities among instructors
- Teaching tips and program updates via quarterly newsletters written exclusively for certified trainers
- Improved maintenance capabilities allowing BICSI to better track and serve participating ATFs

Join BICSI in spreading the availability of a valuable ITS education. By becoming a BICSI Authorized Training Facility, your organization will have a powerful, industry-recognized program to offer to those interested in beginning or enhancing their careers in the ITS industry.

BICSI ITS Cabling Installation Program

The purpose of the BICSI Authorized Training Facility Program is to provide installers with increased access to training in the proper methods of installing data, voice and video cabling within the confines of a commercial building structure. This knowledge is communicated through BICSI's multi-level ITS Cabling Installation Program, which includes a combination of classroom lectures and hands-on learning labs.

This program is a competency-based model offering core skills and on-the-job training, as well as credentialing examinations for ITS Installer 1; ITS Installer 2, Copper; ITS Installer 2, Optical Fiber; and ITS Technician designation participants. The Cabling Installation Training Program leads to the recognition of highly trained installers and technicians, and may be taught by ATFs worldwide.*

Once approved as an ATF, the following BICSI installation courses may be taught:

- IN101: ITS Installer 1 Training
- IN225: ITS Installer 2, Copper Training
- IN250: ITS Installer 2, Optical Fiber Training
- TE350: ITS Technician Training

In addition, an ATF teaching these courses may host the IN101, IN225, IN250 and TE350 exams.

*Curriculum and supporting materials currently available in English only.





We Give You the Tools to Become a Truly Effective ATF

BICSI's unique ATF program brings with it a host of benefits to those willing to take on the charge of educating our industry and advancing the position of BICSI Installers and Technicians.

BICSI will offer you support in the promotion, administration and maintenance of your ATF, as well as provide you with the resources to help you stay knowledgeable and in touch with other ATFs. Here's what you can expect from BICSI when you become an Authorized Training Facility:*

Promotion

- Inclusion of ATF class schedules (for General Sites only) on the BICSI website.
- A user-friendly interface so prospective students can locate information about your ATF quickly and easily.
- A Marketing Kit which includes four flyer templates (one for each course), two postcard templates, press release template, two banner templates, ATF logo and guidelines. Each piece provides room for a personal message or company logo. Many of these pieces can be printed on a regular printer or at a print shop. The kit is provided electronically through the BICSI ATF Forum.

Knowledge and Networking

- Maintenance of a Certified Trainer Forum/Community to foster growth and networking among Certified Trainers and ATF License Holders.
- Ability for your site to host a Master Instructor to teach class(es), allowing your trainers to learn from the "Masters."
- Annual Certified Trainer networking event.
- Course update "seminars" delivered via Web technology (major program updates may still be held face-to-face).
- Access to the private ATF Forum.

Administration

- Maintenance of accurate ATF records, including proactive automated correspondence to notify ATFs and Certified Trainers of their current/renewal status/deadlines.
- Online ordering of program materials (excluding exams).
- No minimum quantity requirements for program material orders.

By becoming a BICSI ATF, you demonstrate your commitment to improving the quality of cabling installations worldwide. You show you're a leader.

*Access to these benefits is dependent upon your participation level. Some benefits will be phased in over the first year of participation.

Authorized Training Facility Authorization and Certification

BICSI offers two ATF program options, determined by the audience you intend to teach. If your organization plans to provide training strictly to your own employees, a **Proprietary Agreement** will be issued. Organizations wishing to train the general public will need a **General Agreement**.

BICSI adheres to the highest level of training practices, and to strict ethical and legal standards. Authorized organizations are liable for any violations of the Agreement and are held responsible for ensuring that their site administrators and certified trainers uphold the program Agreements.

Proprietary Agreement Train your staff.

A Proprietary Agreement entitles BICSI-authorized organizations with BICSI Certified Trainers to offer the BICSI ITS Installation Program to their own employees. Training your employees to meet critical industry-wide specifications positions you above your competition, while ensuring that your organization continues to develop the strengths of every installer, from ITS Installer 1 to ITS Technician, within your organization.

General Agreement Train the public.

A General Agreement entitles BICSI-authorized organizations with BICSI Certified Trainers to resell the BICSI ITS Installation Program to any qualified applicant. Extending training to individuals outside of your organization allows you to educate the industry, increasing the standards and expectations set by BICSI Installers and Technicians, worldwide.

Before obtaining either a Proprietary or a General Agreement, your organization must complete the Authorized Training Facility Site License Application (pages 15-16) and ATF Credit Application (pages 17-18), and submit with your proposed classroom/lab design. Upon approval by BICSI, you should begin certifying your trainers and building your lab. Once your training lab is in place and your trainer is certified, you will sign a two-year Agreement to uphold all program practices and submit appropriate fees. Upon execution of the Agreement, your organization will be authorized to begin training. (For an outline of the application process, please see page 7.)

BICSI's ITS Cabling Installation Program offered through an ATF is not designed as a sole-source of revenue for any ATF. General Site Agreement holders must affirm that they do not rely on, nor hold BICSI accountable for, the organization's financial viability.

Specific and current requirements for Proprietary and/or General Agreements are detailed in the License Agreement itself. Copies are available by contacting the Manager of Curriculum & Instructor Development at +1 813.979.1991 or 800.242.7405 (USA and Canada toll-free).

License Agreement Requirements

The following requirements are applicable for both the Proprietary and General Agreements.

- Training facilities must meet and maintain BICSI guidelines and be approved, in advance, by BICSI. Only trainers who are certified by BICSI and who are employees of the organization holding a valid BICSI License Agreement may conduct training.
- Training must follow the BICSI curriculum and use only original, copyrighted BICSI training workbooks and manuals. All training participants must be provided with their own BICSI *Information Technology Systems Installation Methods Manual (ITSIMM)* and participant workbook. Manuals and participant workbooks must be purchased through BICSI, and may not be resold, reused, duplicated, copied or reproduced by any means.
- Training labs must be equipped with an approved list of products representative of a variety of manufacturers, rather than single brand-specific products. (For a detailed listing, see pages 10-12.)
- ATFs shall conduct no fewer than the number of BICSI training courses specified in their Agreement within the authorized license period. The number of required courses may vary, based upon prevailing business operations. Tuition charged by the ATF (applicable to General Sites only) shall be based on accepted industry standards, and no rebates in the form of products or services shall be allowed.
- BICSI Certified Trainers must adhere to BICSI training and exam-proctoring guidelines at all times.
- Individuals requesting a seat for a certification exam must meet all qualifications, and an exam application must be submitted to BICSI along with appropriate exam fees, according to current credentialing policies and procedures.
- ATFs must cooperate with BICSI in conducting quality assurance inspections of training.
- ATFs must allow BICSI to review class evaluations upon request.
- ATFs must submit class schedules and must provide the name, title and address of each training participant to BICSI through submission of a final class roster.



Trainer Certification

All Authorized Training Facilities must employ their own BICSI Certified Trainer(s). Each trainer must have successfully completed BICSI's Train-the-Trainer (T3) course, which includes demonstrating competence in class content through completion of stand-up presentation skills and passing a written course examination.

Candidates must apply to take part in BICSI's T3 Course. Acceptance is competitive, as T3 class size is limited and the course is held twice yearly. To be eligible to apply, individuals must:

- Hold a current BICSI ITS Technician designation (information regarding this designation is available at www.bicsi.org/technician).
- Have attended and successfully completed BICSI's ITS Technician Training Course (TE350) within two years prior to submitting an application.*
- Have at least five years of current and verifiable cabling experience with a minimum of two years experience in optical fiber systems.
- Have at least one year prior training experience.

Note: Applicants with extensive industry and prior training/instruction experience will be given preference when filling the course. Acceptance in the T3 class does not guarantee that T3 candidates will be granted the Certified Trainer designation.

Candidates who meet the requirements above are encouraged to apply by submitting an Authorized Training Facility Train-the-Trainer (T3) Course Application (pages 19-21).

Candidates who successfully complete the curriculum will be awarded the BICSI Certified Trainer Certificate.

*BICSI also recommends that candidates attend IN225: ITS Installer 2, Copper Training and IN250: ITS Installer 2, Optical Fiber Training within three years prior to submitting an application.

To maintain that certificate, Trainers must:

- Conduct training in conformance with the appropriate ATF Site Agreement.
- Maintain their BICSI ITS Technician designation.
- Participate in the delivery of at least two BICSI training courses during each year of the authorized 3-year Certified Trainer certificate period (i.e., six classes total).
- Complete 36 hours of continuing education, through BICSI training or other BICSI-approved courses offered by industry manufacturers and vendors during each 3-year Certified Trainer certificate period.
- Complete any mandatory BICSI update training. This training will normally occur when the course changes, due to manual updates.
- Notify BICSI of any change in employment status.

Tuition for the T3 course is \$5,000. This fee includes trainer candidate registration fee, BICSI *ITSIMM*, instructor's guide, workbook for each level and the instructor's visual presentation materials for each course. Candidates who do not successfully complete the T3 course may be required to return instructor-related materials.

T3 class size will be approximately 10 training candidates per session.

Candidates will be responsible for their own travel, lodging, meals and incidentals. Each student is also required to bring a laptop to class.

BICSI Authorized Training Facility and Certification Fee Structure

Proprietary Agreement

(entitles you to train your company employees only)

Authorized Training Facility Application Fee

US\$250 (nonrefundable, due with application)

Annual Maintenance Fee*

US\$1,250

Tuition for Train-the-Trainer Course

US\$5,000

Sites must also provide the BICSI *ITSIMM*, participant workbook and applicable exam for each student, based upon prevailing rates. Material fees may change over the life of the Site Agreement.

General Agreement

(entitles you to train any individual)

Authorized Training Facility Application Fee

US\$250 (nonrefundable, due with application)

Annual Maintenance Fee*

US\$1,250

Tuition for Train-the-Trainer Course

US\$5,000

Sites must also provide the BICSI *ITSIMM*, participant workbook and applicable exam for each student, based upon prevailing rates. Material fees may change over the life of the Site Agreement.

*Annual Maintenance Fees are renewable on April 1. Your initial fee may be prorated based on contract start date.

How Do I Get Started?

- Complete and return the Authorized Training Facility Site License Application (pages 15-16).
 - Complete and return the ATF Credit Application (pages 17-18).
 - Submit proposed classroom/lab plans (as specified in Classroom Guidelines, pages 8-9), along with photos of the lab in its current state.
 - Send only the application fee of US\$250 now.
 - Wait for approval from BICSI, to be accompanied with Agreement.*
- Once approved, complete the ATF Train-the-Trainer Course Application (pages 19-21 and return to BICSI with tuition fee of US\$5,000).
 - Begin training and certifying your trainer(s).
 - Begin building your lab facilities.
- Once your trainer(s) is certified and your lab is complete, return signed Agreement and applicable annual fee.
- Await copy of executed agreement, program documentation and site certificate (this may take up to 30 business days).
- You are then ready to begin scheduling your classes!

*Initial acceptance into the ATF Program does not guarantee certification of trainers and labs.

Training Facility Requirements

The following pages outline proper classroom design, including specific minimum lab setup, as well as a general overview of the hands-on portion of the training labs. It is the ATF's responsibility to meet or exceed the requirements as listed below.

Before BICSI authorizes an ATF, the Facility must submit to BICSI its classroom layout design (either current or projected). Classroom must meet all current space and equipment specifications as detailed by BICSI.* BICSI will review the documents and notify the Facility if the planned classroom design, materials, equipment and disposables are accepted.

BICSI retains the right to assure that minimum classroom guidelines are being met and/or maintained through announced and unannounced audio/video and on-site classroom inspections.

*This guide and the classroom/lab specifications may change according to current industry practices. The most current specifications are detailed in the ATF Agreement.

Classroom Guidelines

(See Figures A and B on pages 13-14)

- 1) BICSI requires a minimum training room area of 1,000 square feet to teach a class of up to 8 students. As an option, a site may conduct lecture training in one room and hands-on (lab) training in a separate room. If doing so, the lecture room must be no smaller than 500 square feet and the lab no smaller than 600 square feet. Every two students will require a 6-ft x 30-in table for lecture seating and additional tables, as required, for hands-on work.
- 2) BICSI requires a minimum training room area of 1,500 square feet to teach a class ranging from 9 to 16 students. As an option, a site may conduct lecture training in one room and hands-on (lab) training in a separate room. If doing so, the lecture room must be no smaller than 700 square feet and the lab no smaller than 800 square feet. Every two students will require a 6-ft x 30-in table for lecture seating and additional tables, as required, for hands-on work.
- 3) The classroom shall also contain the following:
 - a. Two each of 6-ft x 30-in tables for instructor lecture materials and audiovisual equipment.
 - b. Two chairs for instructor(s). A minimum of one instructor for every eight students shall be provided for hands-on exercises. A minimum of one instructor will be provided for lecture material.
 - c. Four 6-ft x 30-in tables for display of equipment, materials and hand tools.
 - d. An easel (plus plain paper easel pads) and minimum 6-ft projector screen, plus audiovisual equipment (or equivalent interactive whiteboard) shall be provided that will allow for the proper presentation of BICSI material to the class. BICSI presentations include CD-ROM and video presentations utilizing an LCD data/video projector with a 1024x768 resolution.
 - e. Each student must be provided with an *Information Technology Systems Installation Methods Manual (ITSIMM)* and course workbook purchased from BICSI. Reproduction, resale or reuse of workbooks in any form is strictly prohibited.
 - f. During class, every two students shall have access to the most recent version of the following reference books:
 - i. ANSI/TIA/EIA *Telecommunications Building Wiring Standards* and applicable addenda
 - ii. *National Electrical Code® Handbook*
 - g. Each class shall contain at least one current copy of the following BICSI reference materials (in book or CD-ROM format):
 - i. *Telecommunications Distribution Methods Manual (TDMM)*
 - ii. *Information Technology Systems Installation Methods Manual (ITSIMM)*
- 4) The classroom shall contain, as a minimum, two equipment and cross-connect work location areas that shall provide a hands-on work area for eight students per location. Each location shall contain a 6-ft x 19-in, freestanding equipment rack for the mounting of a fiber termination panel, simulated or actual switch, and various type patch panels. The proper vertical and horizontal wire management panels shall be a part of the rack system. The rack shall be floor-mounted approximately six feet away from the wall containing the plywood backboard (See Figure A on page 13).
- 5) An 8-ft x 4-ft (3/4 inch) A/C plywood backboard shall be painted on all sides with two coats of fire resistant paint. The backboard shall be mounted to the wall behind each of the floor-mounted racks. The "A" plywood finish side shall be facing outward from the wall. The plywood may be placed on 3/4-inch firing strips that have been placed on the wall to allow cable access to termination devices by fishing cables between the wall and backboard. The backboard shall be utilized for the mounting of a protector block, various styles of punch down blocks, and the mounting of a telecommunications main grounding busbar (TMGB) and telecommunications grounding busbar (TGB). In addition, wire routing hardware shall be provided as individual block layout design dictates (See Figure B on page 14).
- 6) A 12-inch-wide ladder rack or cable tray shall be run along the wall the length of each backboard. A 12-inch-wide ladder rack or cable tray shall also be placed from the top of each freestanding rack, and run to the ladder rack or cable tray at the backboard location. The ladder rack or cable tray shall be utilized for running fiber cables, jumper wires, station cables, ground wires and backbone cables from the backboard location to the rack patch panels and termination devices (See Figure A on page 13).
- 7) Two conduits (minimum 3") shall be run from one backboard location to the second backboard location as indicated in Figure A. Both conduits shall be RMC, IMC or EMT, run above the false ceiling area, and the conduit run shall have at least one pull-through junction box (sized per minimum *NEC* requirements) located approximately halfway between the two backboards (the path of the conduit may vary from the Figure A design). As an alternative to Figure A, the conduits may be routed around the perimeter of the room from one rack to the second rack. At each backboard location, conduit sweeps shall be installed at the end of each conduit. The conduit will be utilized in class for pulling and bonding the telecommunications bonding backbone (TBB) from the TGB to the TMGB.

In addition, the conduit will be utilized for placing pull string, and pulling backbone cables, innerduct and fiber cables from one backboard/rack location to the second backboard/rack location.
- 8) A minimum of 10 wall-accessible locations shall be provided for the placement of surface and flush mount faceplates. A minimum of two each of faceplate locations shall be provided for 1-inch conduit homeruns, 1-inch conduit stub-up locations, flush-mount

wall fishing locations and surface-mount raceway location. The faceplates may provide for single-gang or dual-gang faceplate mountings. Each faceplate shall be capable of terminating a minimum of six telecommunications ports.

Worktables

The worktables are to be utilized by the students for practicing hands-on IDC terminations and any other activity that utilizes course equipment and/or material. Each student will ultimately perform placing, termination, labeling, firestopping and testing functions at the backboard and rack locations.

Backboards (See Figure B on page 14)

- 1) Each plywood backboard shall contain an organized array of six types of punch-down blocks so that a maximum of eight students (out of a class of 16) may effectively practice at one of the backboard locations. The types of blocks required are 66 blocks, 110- and 210-style blocks, BIX and GigaBIX blocks (NORDX), and Krone HighBand and FT blocks. It is intended that pulled backbone cables will be terminated on these blocks, and that jumper wires will be terminated in various fashions limited to the imagination of the instructor. D-rings and other wire management devices shall be utilized to indicate normal routings of cables and jumper wires on a backboard.
- 2) Each plywood backboard will contain an example of a properly grounded and terminated protector block with protector modules utilizing a minimum 25-pair aluminum sheath outside plant cable.

Racks (See Figure B on page 14)

Each rack shall be equipped with UTP patch panels. In addition, patch panels for screened twisted-pair station cable terminations and optical fiber terminations shall be provided.

A keystone jack patch panel, as a minimum, will be installed to simulate a switch position. The simulated switch shall contain keystone 8-pin modular category 6 jacks and a minimum of two fiber terminations. Appropriate horizontal and vertical wire management shall be installed on the racks between the patch panels, simulated switch and fiber termination panels. In addition, cable strain relief bars shall be installed on the cable termination side of the racks at the appropriate patch panel location(s).

Each rack shall contain a grounding kit with a rack grounding bar and associated hardware.

Work Area Outlets

Wall faceplates shall be utilized for the termination of at least two 8-pin modular connectors. Terminations of ports shall encompass any two types or combinations of IDC displacement method(s) as described in the rack and backboard sections.

STP, Series-6 coax and optical fiber runs to the work area shall also be terminated at the appropriate outlet.

Terminating, Testing and Troubleshooting

As a minimum, the ATF shall provide necessary materials for the ITS Installer 1 student to terminate category 5e jacks and patch panel cables (to allow for complete circuit testing), stranded copper category 5e patch cords and Series-6 coaxial terminations. Class standard for category 5e terminations shall be T568-A. However, T568-B-type termination devices may be utilized to allow for instruction in logical wiring schemes to the students.

At the option of the ATF, other types of testing apparatus may be provided for class training. As a minimum, every class will be instructed in the use of a twisted-pair wire map tester and a digital volt-ohm-meter (VOM) for measuring grounding systems and for cable continuity testing. At least one copper twisted-pair wire map tester for every four students shall be provided. At least one digital VOM for every eight students shall be provided.

For the ITS Installer 2, Copper and ITS Technician levels, test equipment for the testing of category 6A installed circuits shall be performed through testing devices that meet the standards of TIA/EIA-568-C (Level IIIe). These levels will be instructed on the use of these tools as troubleshooting aids in the diagnosis of copper cabling links. A minimum of two testing devices shall be utilized for training purposes (utilizing products from two different manufacturers).

For the ITS Installer 2, Optical Fiber and ITS Technician levels, a light source and power meter (TSB-140 Tier 1), an optical time domain reflectometer—OTDR (TSB-140 Tier 2) and an optical loss test set—OLTS (TSB-140 Tiers 1 and 2) will be required.

Cable Support Systems

Every class shall contain the proper amount of various cable support devices to install cable from rack-to-rack and/or rack-to-faceplate location(s). This includes cable trays, J-hooks, beam clamps and D-rings, to name a few.

Safety Materials

- 1) One 6- or 8- ft fiberglass stepladder (dependent on ceiling height) shall be provided for each rack located within the classroom.
- 2) A properly sized and fully stocked first aid kit and portable eye wash shall be present at all times and in each classroom during the scope of the course.
- 3) Three-inch yellow vinyl/plastic "CAUTION" tape, A-Frames or safety cones shall be available in each classroom for designating work areas.
- 4) Safety glasses with side shields shall be provided for each student.
- 5) The ATF may provide other safety items to the class for demonstration.

Classroom Inventory Listing - July 2011

The list below outlines the equipment required for the installation course labs. Equipment and lab specifications may change from time to time, based upon current industry practices. All quantities listed assume maximum class size of eight students (quantities of some items will increase for larger classes). For the most current list, contact the Manager of Curriculum & Instructor Development at 800.242.7405 (USA and Canada toll-free) or +1 813.979.1991.

Hardware

Racks

Description	Quantity
19" Rack	2
Misc. Rack Mount Horizontal Wire Manager	16
12- or 24-Port Rack Mount Fiber Panel.....	2
Misc. 24-, 48-Port UTP Patch Panel	2
24- or 48-Port STP Patch Panel.....	2
24- or 48-Port ADC/Krone UTP Patch Panel.....	2
Rack Mounting Screw for Equipment	100

Note: 1. Must also have adequate vertical & horizontal wire management on racks. 2. Star washers between each metal panel on racks. 3. Panels have to be a minimum of category 5e, but at least one needs to be category 6 or higher.

Walls

Description	Quantity
Wall Mount 110 UTP Connecting Block	2
Wall Mount 210 UTP Connecting Block	2
50-Pair 66 Connecting Block	8
66-Block Wall Mounting Bracket.....	8
ADC/Krone Ultim8 Back Mount Frames	2
ADC/Krone Ultim8 Highband Modules.....	20
GigaBIX 250-Pair Wall Mount	2
GigaBIX 4-Pair Termination Module.....	20
Bix 250-Pair Wall Mount	2
Bix 25-Pair Termination Module.....	20
25-Pair Wall Mount Protector.....	2
Wall Mount Fiber Splice Cabinet.....	1
Splice Trays for Fiber Splice Cabinet (ordered separately.....	4
4" TMGB Busbar Kit.....	2
2" TGB Busbar Kit	2

Note: Must also have adequate cable management (D-rings) mounted on walls.

Other

Description	Quantity
10' length of Cable Runway	3
Cable Runway E-bend	2
Butt Splice Kit	4
Triangle Support Bracket (secures runway along wall)	8
Angle Support Kit (to secure end of runway to wall)	2
Rack Mounting Plate Kit (to secure runway to rack).....	2
6' length of 3/8" Threaded Rod (supports cable runway E-bends)	12
I-Beam Clamp (to hang threaded rod).....	4
Hanger Kit (to attach threaded rod to runway).....	4
3/8" Threaded Rod Coupling.....	6
Runway Grounding Kit (bonds runway at butt splice locations.).....	4
Innerduct	As needed

Library (refer to Purchasing Source listing)

Description	Quantity
<i>NEC</i> [®] book—current version of the <i>National Electrical Code</i> book. Available from the NFPA (National Fire Protection Association [®])	9
<i>NEC Handbook</i> —current version of the <i>NEC Handbook</i> . Available from the NFPA	1
<i>NEC CD-ROM</i> —current version of the <i>NEC</i> on CD-ROM. Available from the NFPA	1
Standard Manuals—current version of the American National Standards Institute/Telecommunications Industry Association/Electronic Industries Alliance (ANSI/TIA/EIA) standards referred to throughout the courses. Available from Global Engineering Documents.....	9
<i>MSDS Catalog</i> — <i>Material Safety Data Sheets</i> available from the manufacturers of the equipment used.....	1
<i>ITS Installation Instructor Guide</i> (current version available from BICSI) 1	
BICSI <i>Telecommunications Distribution Methods Manual (TDMM)</i> and CD-ROM.	1
BICSI <i>Information Technology Systems Installation Methods Manual (ITSIMM)</i> and CD-ROM	1
<i>Fire Protection Handbook</i> —available from the NFPA	1
Should also have an assortment of training videos (firestop, fiber safety, fusion splicing, lightning protection, connectorization, etc.).	

Hand Tools

Tool boxes (Students)

Description	Quantity
Tool Box	5
6" Adjustable Wrench	5
6" Needle Nose Pliers	5
Electrician's Snip	5
6" Straight Screwdriver	5
Ringing Tool (stripper)	5
#2 Phillips Screwdriver	5
Diagonal Pliers	5
Cable Splicer Knife	5
Spudger (pick).....	5
ADC/Krone Insertion Tool	5
BIX Insertion Tool	5
GigaBIX/110 Insertion Tool	5
110 Punch Down Tool	5
66 Blade for Punch Down Tool	5

Note: Safety glasses required for each student.

Community Tools

Description	Quantity
Tool Box	2
Allen Wrench Set	2
Lineman's Pliers	2
Large Channel Lock Pliers.....	2
10" Straight Screwdriver	2
10" Adjustable Wrench.....	2
Goggles	2
5-Pair Punch Tool (110)	2
4-Pair Punch Tool (210)	2
Socket Set	2
Wrench Set	2

General Tools

Description	Quantity
Compression Tool for Series-6 F-Connector	4
Series-6 Ring Tool and Stripper	4
Compression Tool for Series-6 BNC Connector	4
Compression (Crimp) Tool for #6 AWG Ground Lug	1
50' Fish Tape (Typically long enough for most classroom applications).....	2

8P8C Modular Crimp Tool.....	4
Write-on Label Dispenser.....	4
6' or 8' Fiberglass Ladder.....	2

Fiber Optic Tools

Description	Quantity
Fiber Termination Kit-Hotmelt.....	2
Fiber Termination Kit-Anaerobic.....	2
Fiber Termination Kit-Crimp/Cleave	2
Fiber Mechanical Splicing Kit	2
Fusion Splicer	1
Fiber Optic Cleaver	2
Kevlar Shears	4
Fiber Optic Microscope (200x).....	4
Fiber Safety Mat.....	8
Fiber Tweezers.....	4
Fiber Jacket Stripper	4
Fiber Optic Stripper.....	4
Fiber Trash Can	4
Fiber Scribes.....	4
Extra Fiber Polishing Puck	4
Extra Polishing Pads.....	4
Fiber Flashlight	2

Workstation Hardware

Description	Quantity
GigaBIX 250-Pair Wall Mount	4
GigaBIX 4-Pair Termination Module.....	8
ADC/Krone Ultim8 Highband Module.....	8
50- or 100-Pair 110 Block.....	8
50-Pair 210 Block.....	8
66-Block	8
Faceplates	8
Category-6 or Augmented-6 Work Area Outlet (jacks for faceplates) .	8
Category-7 Work Area Outlet.....	8

Test Equipment

Description	Quantity
UTP Testing Mock-up	2
Optical Fiber Link Mock-up.....	2
Copper Certification Tester	2
Pair Scanner for 8P8C	2

Digital Volt-Ohm-Meter	1
Analog Volt-Ohm-Meter	1
Light Source and Power Meter	1
OLTS.....	1
Signal Generator and Amplifier (toner and wand).....	1
Fiber Optic Launch Kit	2
OTDR	1
In-line Modular 8-Wire Test Adapter.....	2
4-Pair BIX Test Adapter (T568A)	2
4-Pair BIX Test Adapter (T568B)	2
4-Pair GigaBIX Test Adapter (T568A).....	2
4-Pair GigaBIX Test Adapter (T568B).....	2
4-Pair 110-Block Test Adapter (T568A)	2
4-Pair 110-Block Test Adapter (T568B).....	2
4-Pair 210-Block Test Adapter (T568A).....	2
4-Pair 210-Block Test Adapter (T568B).....	2
66-Block Test Adapter (T568A)	2
66-Block Test Adapter (T568B)	2
ADC/Krone Ultim8 Test Adapter	2
ADC/Krone Ultim8 Feed Through Test Adapter	2

Miscellaneous Supplies

Description	Quantity
First Aid Kit	1
Fiber Optic Safety Kit	4
Eye Wash Station.....	1
Hard Hat.....	2
Roll of Caution Tape.....	2
A-Frames.....	8
Safety Cones	8
Labeling Machine	1
#6 AWG Split Bolt	12
Armored OSP Fiber Cable (bonding show & tell purpose).....	10'
1/4" x 1" Grounding Bolt with Nut and Lock Washer	25
50 μm (min. OM2) Fiber Patch Cords.....	25
Cable Bullet Bond Kit	20

Disposables

Description	Quantity
#6 Stranded Ground Wire.....	50'
2-Hole Compression Lug for #6	25
Series-6 Coax Cable	25'

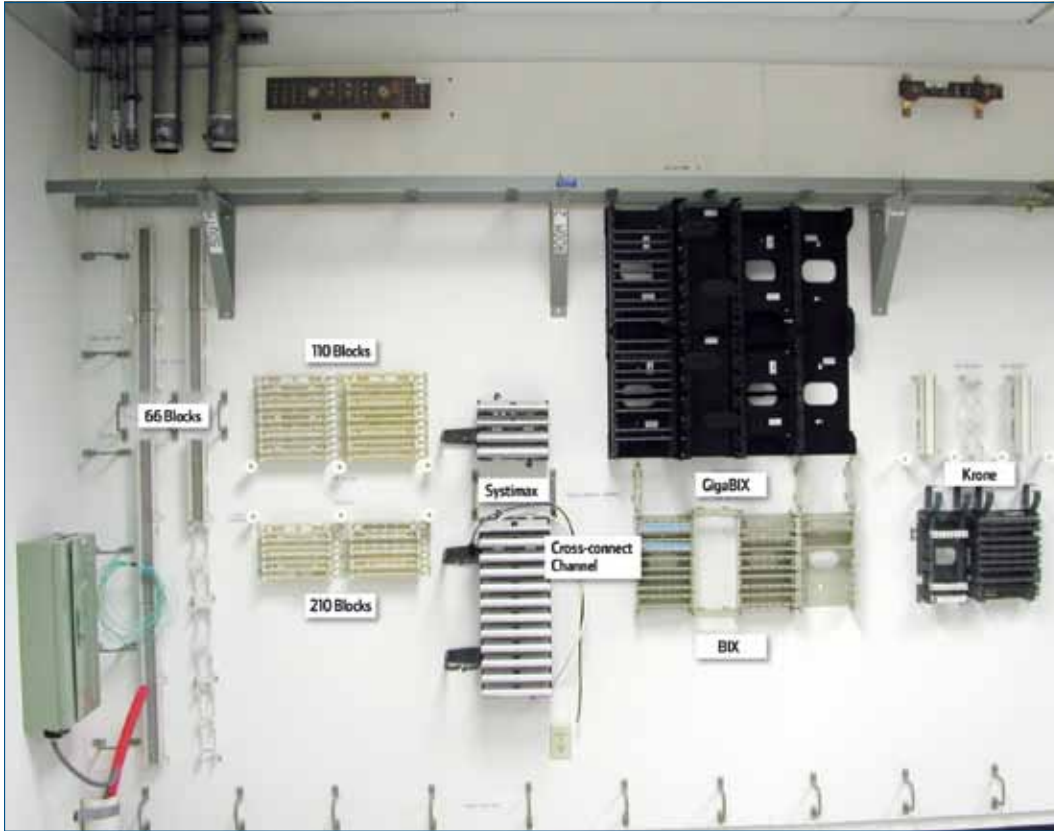
Series-6 (1) Piece Compression Type BNC Connector	25
F-Connector for Series-6.....	25
IDC Connector for 110-Block	10
IDC Connector for 210-Block	10
8P8C Modular Plug	50
Class -F (Category-7) Shielded Outlet Connector	20'
Armored OSP Multi-Pair Copper Cable.....	25'
25-Pair UTP Cable.....	50'
Category-5e UTP Outlet Connector	20
Category-5e 4-Pair UTP	1,000'
Category-6 4-Pair UTP	1,000'
Category-6 4-Pair STP.....	250'
Category-6 UTP Outlet Connector	20
Category-6 _A F/UTP Cable.....	25'
Category-6 _A Shielded Outlet Connector	20
Category-6 4-Pair Stranded Cable	100'
Category-7 4-Pair Cable	100'
Simplex Multimode Fiber Cable (50 or 62.5/125) 250' 12-Fiber 50 or 62.5/125 Multimode OSP (with dry water blocking tape).....	250'
12-Fiber Armored OSP mm 50 μm (min. OM2) Cable	25'
12-Fiber Tight-Buffered mm 50 μm (min. OM2) Distribution Cable	250'
12-Fiber Loose-Tube mm 50 μm (min. OM2) Cable	250'
2-Strand Breakout mm 50 μm (min. OM2) Fiber Cable.....	1000
12-Fiber Furcation/Fan-Out Kits	10
Fiber Connector (for chosen fiber termination kits).....	50
Fiber Mechanical Splices	6
Fusion Splice Protector Sleeves.....	25
ARMM 25-Pair Cable (for copper splicing)	100'
Label Refills.....	2
Vinyl Electrical Tape.....	2
15' Rolls Velcro or Similar	2
Small Tie Wraps.....	100
Large Tie Wraps.....	100
Pull String (1,000' bucket).....	2

Note: It is necessary to outfit the classroom with an assortment of “show and tell” items such as cable pulling samples, cable support hardware, media, connectors, etc.

Purchasing Sources		
BICSI	800.242.7405	www.bicsi.org
Global Engineering	800.854.7179	www.global.ihs.com
NFPA	800.344.3555	www.nfpacatalog.org

Figure B—Equipment Backboard and Rack

(Sample. ATF may select vendors of their choice.)



Equipment Backboard



Equipment Rack

Authorized Training Facility Site License Application



Agreement Desired Proprietary General

Organization Information

Full legal name/Business entity _____

BICSI Corporate Member? Yes No

Sales tax exempt? Yes No Sales tax exempt number (copy of certificate must be attached) _____

Facility Site Address (where training will be held)

City _____ State/Province _____ Zip/Postal code _____ Country _____

Phone _____ Fax _____

Email _____ Company website _____

Billing address (if different from above)

City _____ State/province _____ Zip/Postal code _____ Country _____

Phone _____ Fax _____ Email _____

On a separate page, please describe the current nature of your business and list the training programs offered by your organization within the past two years.

Name of organization's department/division responsible for delivering BICSI training:

Contact name _____ Contact phone _____

Email _____

Name of organization's officer/manager responsible for overseeing the BICSI training function:

Contact name _____ Contact phone _____

Email _____

(see reverse page)

Name(s) of organization's trainer(s) to be certified:

ATF T3 Application attached?

_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No

In order to qualify for trainer certification, you must:

- Have taken a BICSI TE350 course in the last 2 years.
- Hold a current BICSI Technician Certification prior to the commencement of T3 class.

Proposed Lab Design

Please include with this application your classroom/lab design plans and photos of your lab in its current state.

Application Checklist

- \$250 Application Fee (nonrefundable)
- Current Business Description
- Lab plans and photos
- Credit Application
- Authorized Training Facility Site License Application completed and signed
- Authorized Training Facility Credit Application completed and signed

Authorized Signature

Upon receipt, verification and approval of this application, BICSI will provide an Agreement to be signed by an officer of the Authorized Facility. Payment of the annual maintenance fee must accompany the signed and returned Agreement.

Violation of the program Agreement may result in immediate termination of an organization's authorization. BICSI reserves the right to refuse authorization to any organization.

Authorized signature	Date
----------------------	------

Mail or Fax the Application Form to:

BICSI
ATTN: Manager of Curriculum & Instructor Development
8610 Hidden River Parkway
Tampa, FL 33637-1000, USA
Fax: +1 813.971.4311

Authorized Training Facility Credit Application



Organization Information

Organization name

DBA

Address

City State/Province Zip/Postal code Country

Phone Fax Email

Billing address (if different from above)

City State/Province Zip/Postal code Country

Phone Fax Email

Type of Ownership: Corporation Partnership Sole proprietor

Federal tax ID# Phone

Business description

Sales tax exempt? Yes No Sales tax exempt number (copy of certificate must be attached)

Date business started

Number of employees Expected annual sales

Accounts payable contact Phone

Email Credit limit requested

Bank Information

Bank name

Bank address

Phone Fax Email

Account number Contact Date account was opened

(see reverse page)

Trade References

List three principal suppliers with whom you have maintained credit for at least one year.

Organization name

Address

City	State/Province	Zip/Postal code	Country
------	----------------	-----------------	---------

Contact	Phone	Fax
---------	-------	-----

Estimated annual purchases

Organization name

Address

City	State/Province	Zip/Postal code	Country
------	----------------	-----------------	---------

Contact	Phone	Fax
---------	-------	-----

Estimated annual purchases

Organization name

Address

City	State/Province	Zip/Postal code	Country
------	----------------	-----------------	---------

Contact	Phone	Fax
---------	-------	-----

Estimated annual purchases

The information above is submitted for the purpose of obtaining credit. I authorize your investigation of any of the above. I understand that payment is due upon receipt of invoice.

Name of Officer (Please print or type)	Title
--	-------

Signature of Officer	Date
----------------------	------

Mail or Fax the Application Form to:

BICSI
ATTN: Manager of Curriculum & Instructor Development
8610 Hidden River Parkway, Tampa, FL 33637-1000, USA
Fax: +1 813.971.4311

Authorized Training Facility Train-the-Trainer (T3) Course Application



Name _____

Organization name _____

Address _____

City _____ State/Province _____ Zip/Postal code _____ Country _____

Phone _____ Fax _____

Email _____ Training date requested (See course schedule at www.bicsi.org.
Note: T3 courses may be added to accommodate increasing number of applicants.

To be eligible to participate in the T3 Class, applicants must:

- Hold a current BICSI Technician Designation.*
- Have attended and successfully completed BICSI's TE350 (ITS Technician) course within the two years immediately prior to submitting application.**
- Have at least five years of current and verifiable cabling experience with a minimum of two years experience in optical fiber systems.
- Have at least one year prior training experience.

Note: each student is required to bring a laptop to class.

* Information and application materials for this designation are available at www.bicsi.org or by calling BICSI's Membership Department at 800.242.7405 (USA & Canada toll-free) or +1 813.979.1991.

**BICSI also recommends that candidates have attended the IN225 and IN250 courses within the past three years

What is your BICSI Technician number? _____ Date received? _____

On what date and at what organization/location did you attend TE350: ITS Technician Training?

(Date) _____ (Organization/Location) _____

Industry Experience

How many years have you worked in the information technology systems industry?

- None 1-2 years 6-10 years
 Less than 1 year 3-5 years 10+ years

Are you currently employed in the industry?

- Yes No

In what capacity?

- Full-time Part-time Contract
 Retired Other (please specify)

(see reverse page)

How would you describe your primary experience?

- Commercial Residential Equally commercial and residential

Please indicate how many years of experience you have with each of the following systems.

- Copper: None Less than 1 yr. 1-2 yrs. 3-5 yrs. 6-9 yrs. 10+ yrs.
- Fiber: None Less than 1 yr. 1-2 yrs. 3-5 yrs. 6-9 yrs. 10+ yrs.
- Outside Plant: None Less than 1 yr. 1-2 yrs. 3-5 yrs. 6-9 yrs. 10+ yrs.
- Wireless: None Less than 1 yr. 1-2 yrs. 3-5 yrs. 6-9 yrs. 10+ yrs.

Consider your last year of employment in the information technology systems industry. Please provide a breakout, by percentage, of where you spent your time. (e.g. 50% hands-on field work, 10% supervisory, etc.)

- _____ % hands-on field work
- _____ % supervisory
- _____ % training
- _____ % site surveys, billing preparation, prelabor estimates, etc.
- _____ % other, please describe

During your tenure in the ITS industry, approximately how many different employers have you worked with?

- 1 2 3 4 5+

Please list all manufacturers' certifications that you currently hold (e.g., Leviton, Panduit, Belden, Cisco, etc.).

Formal Classroom Teaching Experience

Describe the types of classroom training you have conducted in the past 10 years.

(see next page)

Professional References

Please list the names and contact information of three professional references (including current or previous employers, clients or customers) that BICSI may contact.

Name	Position	Daytime phone
------	----------	---------------

Name	Position	Daytime phone
------	----------	---------------

Name	Position	Daytime phone
------	----------	---------------

Signature Required by Applicant

I hereby attest that the information provided is a true and accurate statement of my qualifications and experience, and I authorize appropriate BICSI officials to seek further verification of my credentials, except as qualified here:

Signature (Application will NOT be processed without signature.)	Date
--	------

Completed application and payment of tuition must be received by BICSI a minimum of 30 days prior to the start of the T3 class.

Mail or Fax the Application Form to:

BICSI
ATTN: Manager of Curriculum & Instructor Development
8610 Hidden River Parkway
Tampa, FL 33637-1000, USA
Fax: +1 813.971.4311

Payment Section

T3 Class Registration Fee: US\$5,000 (Registration fee will be refunded if applicant is not admitted to the T3 class.)

Paid by applicant Paid by Authorized Training Facility

Please make all checks payable to BICSI in U.S. dollars, drawn from a U.S. bank. (Call BICSI's Accounting Department for instructions on wiring funds.) For your protection, BICSI does not accept emailed credit card numbers. If paying by credit card, please mail or fax your payment information instead.

Total to be paid | Check or Money Order Enclosed

\$ _____ | Visa MasterCard American Express Diner's Club Discover

Internal Use Only

Cardholder name (as the name appears on the credit card)	Cardholder signature
--	----------------------

Credit card number	Expiration date	Card billing zip code (required)
--------------------	-----------------	----------------------------------

Start the Process of Becoming a BICSI Authorized Training Facility Today!

The BICSI Authorized Training Facility Program is setting the standard for basic installation competency. By offering BICSI's ITS Installation Program from your own BICSI-approved facility, you can help expand industry knowledge in your community. You can make a difference!

BICSI will help you make that difference by enabling you to offer first-class installation courses to all of your students. BICSI will provide your Certified Trainers with the following instructional materials:

- *Information Technology Systems Installation Methods Manual (ITSIMM)*
- Information Technology Systems Cabling Installation Instructor's Guide
- CD-ROM containing visual presentations to be used in class
- Access to purchasing BICSI's *ITSIMM*, student workbooks, certificates of completion, and ITS Installer 1; ITS Installer 2, Copper; ITS Installer 2; Optical Fiber; and ITS Technician exams for your class

In addition, your Certified Trainer(s) will also receive a certificate of completion for attending the class, and an instructor's certificate upon passing the Train-the-Trainer (T3) exam.

These tools, along with your certified classroom/lab facilities, allow all BICSI ATFs to offer the same outstanding education from any place in the world! Don't wait. Start the application process today.

Expand Your Curriculum by Hosting a BICSI Design Course and Master Instructor at Your Location

Maybe you're interested in more than installation courses?

Any ATF, regardless of where it is located, may host training of ANY BICSI course at their facility by inviting BICSI to teach. BICSI supplies the instructor, materials and equipment. The ATF supplies the training facility and students.

An ATF may choose to host either a Suitcase Course (open to its own employees only) or an Open Enrollment Course (open to the general public). Any combination of BICSI classes may be taught, and credentialing examinations may be offered on-site in conjunction with relevant courses. The possibilities are extensive.

Offering a BICSI suitcase or open enrollment course can save you both time and money—time away from the job site, and money spent on traveling and training one student at a time. Plus, it allows you the flexibility to choose your own course dates. Think of what an impression you could make on your (potential) customers by sponsoring a BICSI open enrollment course for them at your site!

To find out more, please contact BICSI at 800.242.7405 (USA and Canada toll-free) or +1 813.979.1991, or email bicsi@bicsi.org.

About BICSI

BICSI is a professional association supporting the information technology systems (ITS) industry. ITS covers the spectrum of voice, data, electronic safety & security, project management, and audio & video technologies. It encompasses the design, integration and installation of pathways, spaces, 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.



BICSI provides information, education and knowledge assessment for individuals and companies in the ITS industry. We serve more than 23,000 ITS professionals, including designers, installers and technicians. These individuals provide the fundamental infrastructure for telecommunications, audio/video, life safety and automation systems. Through courses, conferences, publications and professional registration programs, BICSI staff and volunteers assist ITS professionals in delivering critical products and services, and offer opportunities for continual improvement and enhanced professional stature.

Headquartered in Tampa, Florida, USA, BICSI membership spans nearly 100 countries.

BICSI Vision Statement

BICSI is the worldwide preeminent source of information, education and knowledge assessment for the constantly evolving information technology systems industry.

BICSI Mission Statement

BICSI's Mission is to:

- Lead the information technology systems industry with excellence in publications, education and knowledge assessment.
- Advance our members' ability to deliver the highest quality products and services.
- Provide our members with opportunities for continual improvement and enhanced professional stature.



8610 Hidden River Parkway, Tampa, FL 33637-1000 USA

Tel: +1 813.979.1991 or 800.242.7405 (USA/Canada toll free)

Fax: +1 813.971.4311; Email: bicsi@bicsi.org; Web: www.bicsi.org

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