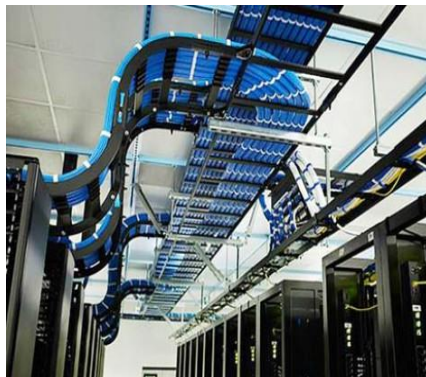
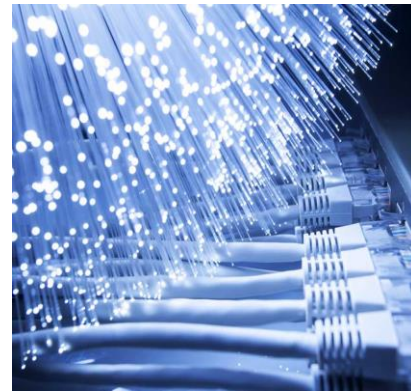


# 2022 School Catalog



# Disclaimer

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The American Trade Academy (herein referred to as “ATA,” “the school” or “the institution”) makes every effort to ensure accuracy of the information contained in this catalog. ATA reserves the right to change policies, regulations, fees, and courses of instruction during this catalog period upon direction of its management. The most current and complete information is available from the school director. All information in the content of this catalog is current and correct as of the publication date and is so certified as true by school director, Paul Bonagura.

ATA has no pending petition in bankruptcy, is not operating as a debtor in possession, has not filed a petition within the preceding five years, or has not had a petition in bankruptcy filed against it within the preceding five years that resulted in reorganization under Chapter 11 of the United States Bankruptcy Code (11 U.S.C. Sec. 1101 et seq.).

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education (BPPE) at 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833 or at P.O. Box 980818, West Sacramento, CA 95798, [www.bppe.ca.gov](http://www.bppe.ca.gov), by telephone (888) 370-7589 or by fax (916) 263-1897.

The institution provides its Catalog on its website ([www.ATAcademy.us](http://www.ATAcademy.us)) and in print to all prospective students and to the general public when requested.

**As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.**

The American Trade Academy is a private institution that is approved to operate by the Bureau. Approval to operate means the institution is compliant with the minimum standards contained in the California Private Postsecondary Education Act of 2009 (as amended) and Division 7.5 of Title 5 of the California Code of Regulations.

All classes will be held at 18429 S Avalon Boulevard, Suite A / Carson, California 90746.

A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 or by completing a complaint form, which can be obtained on the Bureau’s Internet Web site at [www.bppe.ca.gov](http://www.bppe.ca.gov).

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# Approval Disclosure Statement

The American Trade Academy (ATA) was granted institutional approval from the Bureau for Private Postsecondary Education (BPPE) pursuant to §94802 of the California Education Code. This approval means that the institution and its operations comply with minimum standards established under law for occupational instruction by private postsecondary educational institutions. Institutional approval must be re-approved periodically and is subject to continuing review. The following programs are approved:

Program	Length In Weeks	Lecture Hours	Lab Hours	Total Clock Hours
Cable Television Technician	6	77.25	96.75	174
Cable Television and Satellite Technician	8	100.25	131.75	232
Advanced Telecommunications Technician 1	20	254.25	325.25	580
Advanced Telecommunications Technician 2	26	332	422	754
Advanced Telecommunications Technician 3	26	332	422	754
Advanced Telecommunications Technician 4	32	409.25	518.75	928
Fiber Optic Technician	6	77.25	96.75	174
Audio and Video Technician	6	77.25	96.75	174
Pole Climbing and Ladder Safety	2	40	40	80
Private Security Guard	1	30	10	40
Private Security Guard with Taser and Firearm	2	54	26	80
Satellite Technician	2	23	35	58
Alarm and Camera Technician	6	77.25	96.75	174
Structured Cabling Technician	6	77.25	96.75	174

***NOTE: The American Trade Academy does not offer instruction in English as a Second Language (ESL).***

Instruction is conducted in-house with facility occupancy levels accommodating 30 students. Prospective enrollees are encouraged to visit the school's facilities and to discuss their personal educational and occupational plans with school personnel before signing an enrollment agreement.

California statute requires that a student who successfully completes a program of study be awarded an appropriate diploma or certificate verifying that fact.

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education at 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833; or P.O. Box 980818, West Sacramento, CA 95798-0818; or visit [www.bppe.ca.gov](http://www.bppe.ca.gov), or call toll-free telephone number (888) 370-7589 or by fax (916) 263-1897.

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The American Trade Academy (ATA) makes every effort to ensure accuracy of the information contained in this catalog. The College reserves the right to change policies, regulations, fees, and courses of instruction during this catalog period upon direction of ATA management and the school director. The most current and complete information is available from the school director.

All information in the content of this catalog is current and correct as of the publication date and is so certified as true by Paul Bonagura, School Director.

# Class & Facilities Information

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## **HISTORY AND OWNERSHIP**

Flywire, Inc is the parent company of The American Trade Academy, was established in 2001 as a corporate training entity and industry consultant. The American Trade Academy Incorporated, was established and structured as a for profit, Type S California corporation in June 2001. Mr. Paul Bonagura, serves as the school director. The American Trade Academy has been approved by the State of California Department of Consumer Affairs, Bureau for Private Postsecondary Education (BPPE) through August, 2024.

ATA has BPPE approvals in the fields of communication technology and installation and private security guard programs to diversify our offerings with strong employment and advancement opportunities. We have an enhanced learning environment with expanded classrooms and labs, as well as updated equipment and curriculum. This, coupled with qualified instructors, facilitates student retention and simulates an actual work environment to foster an effective learning experience.

We are dedicated to our educational service contracts, most importantly achieving the completion and placement goals. We seek community and industry involvement in program development and delivery.

## **MISSION STATEMENT AND EDUCATIONAL PHILOSOPHY**

The mission of The American Trade Academy is, *“To empower a diverse student body by teaching academic concepts and technological skills and by instilling in students the importance of effective, responsible application of their knowledge to succeed in a highly competitive, technologically changing world.”*

The American Trade Academy’ goal is to provide a proper balance between theory, diagnosis and laboratory work, as well as student services to support successful completion and placement in positions available today and tomorrow. The school certifies students in broadband technology who may be employed in many fiber optic and broadband fields, including communication technologies, commercial and residential installation, high-end audio/visual, CCTV security and surveillance, automation service and installation, and private security guard.

Following is a list of ATA’s institutional goals and Guiding Principles (Belief Statements):

1. Education is essential to success.
2. All students learn, achieve, create, and succeed in different ways.
3. Students learn best when they are engaged in the learning process.
4. Respect is a necessary component of learning.
5. Diversity strengthens understanding.
6. Positive morale among students and staff is critical to the success of the school.
7. Staff and students deserve a safe and physically comfortable environment that supports positive learning experiences.
8. Students, staff, parents, and the community share the responsibility for the success of the school.

The institution’s educational objectives include the following:

- Embrace voluntary self-regulation;
- Ensure proper, ethical administration of its training services, operations, and financial stability;
- Demonstrate effectiveness of its educational training by providing essential skills to support a productive workforce.
- Demonstrate professionalism to the general public;
- Communicate effectively with industry professionals;
- Offer technical programs so that students can achieve their career, educational, and personal goals;
- Provide training using actual on-the-job situations so graduates can have the skills and competencies needed for entry-level employment;
- Ensure only relevant equipment and materials are used in the training of students; and
- Hire qualified instructors.

# Class & Facilities Information

## **FACILITIES, EQUIPMENT, AND STUDENT-TEACHER RATIOS**

The school is approximately 2,000 total square feet and is wheelchair accessible. The Carson campus is conveniently located near the business district of the city of Carson with easy access to major freeways and bus stops. ATA affords students easy MTA accessibility and is near many restaurants, a park and community areas.

The school has all the necessary equipment for lecture and laboratory practice, including installation, cabling and line testing equipment; power meters; laser fault identifier; LAN certification testers; wire map tester; fusion splicer; specialty and fiber inspection scope. There are also standard hand tools, ladders, optical time domain reflectometer, audio/video, security CCTVs, satellite equipment televisions, surround equipment for installation and set-up, and overhead projectors. Laboratory equipment in the shop area consists of the type and variety found in business residential, commercial, and industrial mock-ups. Whether students wish to learn a new trade or upgrade their skills, ATA has developed a curriculum that provides hands-on training on state-of-the-art equipment.

The facility and equipment comply with all federal, state, and local ordinances and regulations, including those requirements for safety, building safety, and health. With secure, ample no cost parking, as well as having handicapped and visitor available parking.

Maintaining and preserving the school's facilities and equipment is an obligation of all members of the institution: faculty, staff, and students. Students are expected to treat facilities and equipment with care and will be held liable for the destruction of school property. Smoking is prohibited within the school.

**Lecture and Lab Classes:** All programs have a maximum ratio of 25 students to 1 instructor.

## **CLASS SESSIONS AND SCHEDULES**

ATA offers year-round enrollment for all programs. Start dates occur on Monday, but if school is closed on Monday for a recognized holiday, the start date will be on Tuesday. The beginning of a module offers an opportunity to join the program.

**Broadband Cable Technician (DAY):** Classes are held Monday-Friday from 8:00 am to 4:30 pm.

**Private Security Guard and Private Security Guard with Taser and Firearm (DAY):** Classes are held Monday-Friday from 8:00 am to 5:00 pm.

**All Other Programs (DAY):** Classes are held Monday-Thursday from 8:00 am to 4:30 pm.

**All Programs (EVG):** Classes are held Monday-Thursday from 6:30 pm to 10:00 pm.

## **CAMPUS HOLIDAYS AND BREAKS**

The American Trade Academy may not hold classes on the following holidays: New Year's Day; Martin Luther King, Jr. Day; President's Day; Memorial Day; Independence Day; Labor Day; Columbus Day; Veterans' Day; and Thanksgiving. In addition to these holidays, school will be closed for summer and winter break, as follows:

<b>Summer Break 2022:</b>	TBD
<b>Winter Break 2022:</b>	December 24, 2019 – January 3, 2020 ( <i>Classes resume on January 6th</i> )

When school is closed for a holiday, make-up of hours must be done on either Friday or Saturday depending on the program and/or module. (Refer to the Academic Calendar at the end of the catalog for start/end dates and holiday schedule.)

# Class & Facilities Information

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## **OPERATING SCHEDULE / CAMPUS HOURS**

ATA's campus facilities are open Monday through Friday, generally from 8:00 am to 10:00 pm. Administrative offices are open generally Monday through Thursday from 8:00 am to 7:30 pm, and Fridays from 8:00 am to 5:00 pm. Administrative staff is available during evening hours by appointment.

## **EQUAL OPPORTUNITY STATEMENT / SEEKING ACCOMMODATIONS** ***Rehabilitation Act and Americans with Disabilities Act (ADA)***

It is ATA policy that all admissions, employment, and promotion processes are free from conscious or inadvertent discrimination because of race, age, sex, religion, creed, color, national origin, physical handicap, political affiliation, sexual orientation, or beliefs. This policy applies to hiring for all positions and admission of students for all programs.

Reasonable accommodations will be made for students with disabilities, in accordance with state and/or federal law. If an applicant with a disability wishes to enroll, s/he must first contact the campus director to discuss possible options to facilitate his/her enrollment and training. Consideration for such students will be made on a case-by-case basis.

In accordance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA) as amended, the College abides by the regulation that "no otherwise handicapped individual" shall be excluded from participation in the programs and services offered by the College "solely by reason of the handicap." A student is eligible for consideration for accommodations and/or auxiliary aids and services if the student has a disability and the Admission Representative has met with the student, consulted with the Campus Director, Director of Education, Program Director and determined that the functional limitations of the disability require such accommodation, auxiliary aids and/or services.

The College is committed to providing reasonable accommodations including auxiliary aids and/or services to qualified individuals with a disability, unless providing such accommodations would result in undue burden or fundamentally alter the nature of the relevant program, benefit or service provided by the College. To request auxiliary aids or services, please contact the Admission Department at the campus. Students should submit requests with supporting documentation at least six weeks prior to the beginning of the first day of classes or as soon as possible.



# Admissions Policies & Procedures

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## **ADMISSIONS REQUIREMENTS**

The College seeks to admit students who possess the appropriate credentials and have demonstrated capacity or potential that indicates a reasonable probability of success in completing the educational programs offered by the College. To accomplish this, the College evaluates all students and makes admissions decisions on an individual basis following the admission policies set forth in this catalog. Students are encouraged to apply for admission as soon as possible for a specific program and start date. Applicants' families are encouraged to participate in the enrollment process so that they may have an opportunity to ask questions.

Students must complete the entire admissions process on or before the first day of class for all programs. Students who fail to complete the admissions process prior to the first day of class may be required to reschedule to another start date. All prospective applicants must be personally interviewed by a school representative, tour the campus and receive a catalog describing the course offerings and the school policies. Upon the applicant's determination that he/she is interested in pursuing a specific program of study, he/she visits the Financial Aid department to receive information regarding funding options. As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

The American Trade Academy Inc. does not offer visa services to prospective students from other countries or English language services. Additionally, The American Trade Academy Inc. does not offer English as a Second Language instruction. All instruction occurs in English. English language proficiency is documented by:

1. The admissions interview; and
2. The American Trade Academy Inc.'s receipt of prior education documentation as stated in the admissions policy.

In order to be admitted to his/her desired program, an applicant must do all the following:

- Provide a valid high school diploma/transcript, GED, California High School Proficiency Certificate, or demonstrate the ability to benefit
- Be at least 18 years old. If younger than 18, the applicant must provide a valid high school diploma or equivalent for admission to any program or course.
- Interview with an admissions representative.
- Tour the campus in the company of an admissions representative.
- Be in good physical and mental health in order to adequately progress through the program.
- Provide a valid third-party evaluation of foreign transcripts or diploma, as applicable.

## **PROCEDURES**

Interested applicants will interview with an admissions representative (AR), during which a campus tour will be given. The AR will provide detailed information on ATA's programs and discuss the applicant's qualifications to assist in determining the best way to meet his/her career objective. All applicants will meet with a financial aid representative to discuss potential tuition financing programs. In order to be formally accepted to the College, all applicants must do the following:

1. Complete, sign, and date an Application for Admission;
2. Make financial arrangements to cover the cost of tuition and fees; and
3. Read and sign all required pre-enrollment disclosures, such as the ATA School Catalog, Notice of Student Rights, Notice of Cancellation, School Performance Fact Sheet (Completion & Placement Rates Disclosure), and Enrollment Agreement.

# Admissions Policies & Procedures

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## ENTRANCE TEST

Prospective students must provide a valid a high school diploma or its equivalent or successfully pass an Ability to Benefit test (Wonderlic), independently administered. Should the candidate not have a high school diploma or equivalent (GED), s/he must achieve a minimum passing ATB score of 12, per publisher's scoring standard. All prospective students must pass a Capacity to Benefit (CTB) exam per State of California BPPE regulations. The Wonderlic SLE is used for CTB eligibility. For all telecommunication programs, the passing score required is 16, per the publisher's scoring standard; for security guard programs, the passing score is 17.

### High School Diploma Equivalency

Applicants without a high school diploma may provide the following for consideration of admittance to any program if the following documentation shows evidence of high school graduation:

1. Transcript from high school that evidences successful completion of all required coursework and graduation
2. General Educational Development (GED) certificate
3. High school equivalency certificate, such as the California High School Proficiency Exam (CHPSE)
4. Transcript that shows the applicant earned an Associate's or Bachelor's degree at an accredited institution recognized by the U.S. Department of Education, if it shows the high school attended with graduation date.

If the applicant is a **home-schooled student**, s/he must submit documentation that outlines the curriculum studied. This may be in the form of course syllabi or a transcript from a recognized home-schooling agency. If such documentation is not available, then GED or CHSPE scores must be provided.

**All transcripts must be in English or submitted with a certified English translation of the original.** High school documentation from a country other than the United States must be translated and certified to be at least the equivalent of a U.S. high school diploma by an agency that is a member of the National Association of Credential Evaluation Services (NACES) or Association of International Credential Evaluators (AICE) within 30 days of starting the program.

An applicant who cannot provide evidence for any of the above-mentioned documents may be admitted under certain conditions, including having to submit acceptable documentation of completion of high school or its equivalent no later than 30 days from the first scheduled day of the program. If a student's high school diploma/transcript is not provided within 30 days of the class start, this fee will be refunded, and the student's enrollment will be voided.

For those with prior college training who wish to transfer credits, please see the *Transfer of Credit* policy in this catalog under the section titled *General Policies and Information*.

### Pregnancy

Applicants who are pregnant at the time of enrollment must provide authorization from their attending physician prior to starting the program.

# Attendance & Academic Policies

## ATTENDANCE POLICY

Student attendance is regularly documented through use of daily sign-in sheets on which students sign their full names (no initials) in blue or black ink. Students are expected to be in class on time, as repeated absences or patterns of coming late or leaving early will result in disciplinary action. Students are strongly advised to call the school to inform their instructor of an upcoming absence, if possible. **In order to receive attendance credit for the day, a student must attend at least one full class session.** Failure to abide by ATA attendance policy will adversely affect academic progress and can lead to warning or termination.

### Minimum Standard

A student must attend classes a **minimum of 80% overall** in order to successfully complete the program. One (1) unexcused absence, **or** two (2) excused absences in a scheduled five-day class week, **or** any three (3) absences within one month in any program is considered to be excessive. The student will be placed on a formal Warning for the following thirty (30) days and will be notified in writing; and the Warning will be entered into the student's file. If, during a formal Warning the student's attendance remains unsatisfactory, the student's status will be changed to Probation for thirty (30) days. During this time, any further attendance infraction may result in the student's termination. **Note: Five 5 consecutive days of absence, or 14 calendar days of absence, is cause for automatic withdrawal from the school.**

### Tardies/Early Departures

A **tardy** is defined as arriving more than 15 minutes late for the first-class session. "Class session" is defined as the scheduled portion of the class day for which a student signs to designate his/her attendance. The 15-minute grace period for tardies applies to only the first-class session. Students must arrive at the start of subsequent sessions or they will be marked tardy. An **early departure** is defined as leaving before a class session ends. Missed time for tardies and early departures in all programs/courses cannot be made up.

Five (5) tardies and/or early departures equal one day of absence. Calculation of absences resulting from tardies/early departures count against the student's cumulative attendance percentage.

### Termination for Consecutive Absences

A student will be terminated for missing ten (10) consecutive class days or 14 calendar days, whichever comes first. Consecutive absences that are made up will not excuse the student from this policy. This policy does not apply to those days when school is closed for a holiday.

## GRADING SYSTEM

The American Trade Academy uses the following scale as its standard grading system.

GRADE	PERCENT	DESCRIPTION	GRADE POINTS
A	90-100	EXCELLENT	4.0
B	80-89	GOOD	3.0
C	70-79	AVERAGE	2.0
D	60-69	BELOW AVERAGE	1.0
F	0-59	FAIL	0.0
CR	CREDIT RECEIVED	CR	N/A
I	INCOMPLETE	I	N/A
W	WITHDRAWN	W	N/A

\* NOTE: There are no grade points awarded for the following: F, CR, I, or W.

# Attendance & Academic Policies

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## ACADEMIC STANDARDS

The American Trade Academy evaluates student academic performance on a 4.0 grading scale, whereby a cumulative grade point average (GPA) of either 2.0 must be maintained for making satisfactory academic progress. Minimum cumulative 2.0 GPA is required (equivalent to 70% on a 100% grading scale). A grade of “D” for a module or quiz is considered a passing grade.

### Grading Formula:

Student progress is evaluated using oral, written, and practical tests and projects each month. The out-of-class work (e.g., quizzes, written tests and follow-up question and answers) account for 25% of the grade. The midterm and finals account for 25% of the grade. Practical application during in-class lab work, classroom participation, and in-class tests account for 50% of the grade. A test grade of 60% or less will require a retake of the specific test.

## CPR TRAINING

Students are provided CPR training during the Security Guard programs and will receive a First Aid CPR/AED certification from the Red Cross.

## SATISFACTORY ACADEMIC PROGRESS (SAP)

Satisfactory Academic Progress (SAP) is defined as the successful progression through an academic program. Every student must maintain satisfactory academic progress in order to remain enrolled at the college, and to remain eligible to receive federal financial aid.

In order to receive federal financial aid, students must make satisfactory academic progress toward a certificate or diploma. SAP will be conducted at the point when the student has attended the scheduled credit or clock hours, as required by federal regulations, effective for all starts on or after July 1, 2011.

### SAP Requirements

**Standard 1 – Cumulative Grade Point Average or GPA (Qualitative Measure or “grade-based”):** The student must maintain a minimum qualitative measure of progress defined as the cumulative GPA, which is a 2.0. Only those credits required in the student’s program of study are used in the CGPA calculation.

**Standard 2 – Clock Hour Completion Ratio / Pace (Quantitative Measure or Rate of Progress “time-based”):** The student must achieve a minimum attendance rate of 80 of all clock hours attempted. Grades of “F” (Fail), “I” (Incomplete), and “W” (Withdrawn) are calculated in the completion ratio and will result in a lower passing ratio. Transfer credits (both earned and attempted), if applicable, are also calculated in the completion ratio.

The rate of progress percentage is calculated by dividing the clock hours earned by the hours attempted. Only those hours required in the student’s program of study, including transfer hours, are used in the calculation.

**Standard 3 – Maximum Timeframe:** The students must complete his/her certificate or diploma program/course within 150% of the published length, as reflected in the Program Chart contained in this catalog. Transfer credits are included in the maximum timeframe calculation. Students are expected to complete their program within 150 percent of the published length of the program (or 1.5 times the number of hours in their program). Quantitative Measure or Rate of Progress calculations help assure that students will complete their programs within the maximum time frame.

**Effect of Transfer Hours on SAP:** Transfer hours awarded by the school has no effect on GPA calculations for SAP but does affect the Pace calculation. Transfer Hours are also included in the maximum timeframe calculation.

**Effect of Program Change on SAP:** Students who change programs will only have hours and grades that are applicable to the new program (including transfer credits) calculated in SAP and Maximum Timeframe. Any hours that were previously taken that are not part of the student’s new program of study will not be used in the calculations.

## STATUSES OF SAP

**SAP Warning:** Students who fall below either the qualitative or quantitative measure will be placed on “SAP Warning” status for one payment period. As a result, the student will be required to meet with a school representative to discuss the minimum requirement(s) not being met and corrective action necessary to satisfy SAP requirements. One-year programs (i.e., those with one academic year) will have one warning period.

# Attendance & Academic Policies

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**SAP Failure:** A student who fails to meet SAP standards while on SAP Warning will be required to meet with the director of education to discuss his/her status and create an academic plan to improve their academic standing.

For either status above, the student must sign and receive a form detailing his/her status as SAP Warning or SAP Failure. The form will indicate the reason for the warning/failure status and the corrective action needed to achieve the minimum requirement(s) to meet SAP. A student's refusal to sign the form will not exempt him/her from the conditions of SAP Warning or SAP Failure and may lead to further disciplinary action including termination.

## **SAP TERMS AND OTHER INFORMATION**

**Hours Attempted:** Defined as all courses for which a student receives a grade – whether passing or failing – and includes “W” (Withdrawn) and “I” (Incomplete) grades. Therefore, any and all grades received will count toward the clock hour ratio detailed above in Standard 2 of the SAP requirements.

**Hours Completed:** Defined as all courses for which a student receives a passing grade.

**Hours Included in Completion Calculation:** In addition to courses in which the student is enrolled, challenged credits and transfer credits are included in the calculation of completed clock hours. However, any clock hours audited by a student do not count as either clock hours attempted or completed.

**Impact of Repeated Courses:** Repeated courses count as hours attempted during each payment period in which the student is enrolled, and they may affect the pace (see Standard 2 above). However, a repeated course will count one time as hours completed the first time the student receives a passing grade for the course.

**Hours Completion Warning:** Students placed on SAP Warning for lack of clock hour completion are advised that, if any other SAP standards have generated a “hold” on their record, those standards and conditions take precedence over the clock hour completion warning.

## **PROBATION FOR ATTENDANCE AND CONDUCT**

Probation serves as a method for both students and staff to acknowledge a student's substandard performance in attendance or conduct. Probation will occur if the student's cumulative attendance is below the minimum standard when formally reviewed at the end of his/her payment period or if s/he is determined to have exhibited misconduct (e.g., foul language, disrespect to staff/students, etc.). The school director also has the discretion to place a student on probation at any time, if deemed necessary, for incidents such as repeated absences, tardies/early departures, disruptive attitude/bad behavior, or if found to be in violation of any other school policy. For all programs, a certain number of absences during a module may lead to automatic probation.

Students placed on probation for attendance and/or conduct issues will sign and receive a written notice indicating the duration of and reasons for the probation, including corrective actions required to remain in good standing. If the student fails to comply with the stated corrective actions, s/he will be terminated. Exceptions may be made due to extenuating circumstances, at the discretion of the campus director, and only upon receipt and approval of applicable supporting documentation. A student's refusal to sign the probationary form will not exempt him/her from the conditions of probation and may lead to further disciplinary action including termination. Periods of an approved leave of absence (LOA) and periods of non-enrollment after voluntary or involuntary withdrawal do not count as time elapsed toward the probationary period.

The length of probation is thirty (30) calendar days unless otherwise stated for a specific reason. At management's discretion, the student may be released from probation prior to the end of the documented probationary period if all conditions have been met. If the student has not satisfied the terms of probation but has made substantive improvement, the campus director may extend the probationary period for fifteen (15) calendar days. If the student fails to comply with the extended probationary conditions, s/he may be suspended or terminated.

## **COURSE INCOMPLETES**

Incompletes become an “F” grade if not remedied within 15 days. When the grade average for a student is under 2.0 for a month, the student will be placed on Formal Warning. If the grade average for the next month is less than 2.0 or below, the student may be placed on Probation or terminated, or training interrupted at the director's discretion. If terminated, re-enrollment will be approved after evidence is submitted to demonstrate that conditions that caused the interruption have been rectified.

# Attendance & Academic Policies

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## WITHDRAW GRADES

A student who withdraws after attending any portion of a module will receive a grade of "W" or Withdrawal on their transcript. The "W" grade is a permanent mark with no grade points assigned. "W" grade for the module or course will not be included in the calculation of the GPA for SAP. Withdrawal grades are counted as attempted, but not earned and will be included in the calculation of the rate of progression in determining SAP.

## MAKE-UP

Students are strongly advised not to miss class unless absolutely necessary, as make-up work cannot always fully replace direct instruction and classroom participation. If class is missed, it is the student's responsibility to arrange make-up time with the instructor within 30 days. Make-up hours cannot be accepted as hours of class attendance. Students must submit a request form to arrange make-up time.

## COURSE REPETITIONS

A student must repeat (retake) any failed module to attain a passing grade. Students can take any module a maximum of two (2) times but must pass it by the second attempt. Grades earned for repeated modules will replace the original grade in determining academic progress and GPA; however, all module final grades will be on the student's transcript. **A student cannot repeat a module s/he passed in order to obtain a higher grade.** To repeat a failed module during the next available offering, students in all programs must submit the requisite Request Form. If the request is not voided before the module start date, the student will be obligated to the schedule and tracked accordingly for attendance and academic purposes. See Re-Entry Policy under General Policies and Information regarding repeating modules that a student passed during a previous enrollment.

## LEAVE OF ABSENCE

A student may be granted an approved Leave of Absence (LOA) for emergency circumstances that prohibit him/her from attending school. Requests for LOAs must be made through and approved by the school director. Programs less than two months are not eligible for a Leave of Absence. Requests for LOA will be considered on an individual basis and are subject to the following conditions:

1. An LOA must be requested in writing, via a specific form provided to the student upon request, which must be completed in full. However, if unforeseen circumstances prevent a student from completing the form prior to taking an LOA, the School may grant the request if it documents its decision and collects the written request later.
2. In no event can a student take an LOA for less than one week. If an approved LOA begins during a week, the remaining days of that week will be counted as one full week toward the total number of allowable weeks for LOA.
3. The maximum timeframe for any approved leave of absence is 180 calendar days in any 12-month period or half the published program length, whichever is shorter. Additional LOAs may be granted provided that the total number of days for all LOAs does not exceed this limit. The 12-month period begins on the first day of a student's initial LOA. Students are advised to be aware of any allowable remaining days for future LOAs to be used for unforeseen issues, such as needing to wait for any modules previously failed, missed during LOA, or not yet taken.

**Note for M1 Visa Students:** If the designated school official (DSO) allows you to withdraw from school or take a leave of absence, you will be allowed a 15-day period for departure from the United States, and your Student and Exchange Visitor Information System (SEVIS) record will reflect Terminated status for authorized early withdrawal. This departure period only applies to a student who talks to a DSO about leaving school. If you do not tell your DSO, you will not qualify for an additional 15-day period for departure. Also, the DSO will terminate your SEVIS record for unauthorized early withdrawal. This may impede your re-entry into the United States. When preparing to return to the United States, you can choose a date that meets two specific criteria:

- Within five months from the date the DSO put your record in Terminated status
  - At a time when you can begin studying again, such as the beginning of a new module
4. If called for military duty, the student's request must include applicable documentation.
  5. If a leave of absence begins during a module, the student will be withdrawn from the module, and it will be rescheduled in its entirety upon the student's return.
  6. A student must return from an LOA at the beginning of a module that s/he has yet to successfully complete; a student cannot return into a module that s/he has already passed.

# Attendance & Academic Policies

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7. Upon return from an LOA, a student's expected completion date will be extended, at minimum, for the number of weeks of the LOA period; and the extension can include additional weeks if the LOA started during a module that the student did not complete. Students are advised that they may also be required to attend an alternate class session (e.g., morning instead of evening) or different class sessions at the same time in order to complete the program within the allowable maximum timeframe.
8. When completing the LOA form, the student will also sign a projected new schedule and contract addendum, both of which will indicate the student's new expected completion date.
9. Students who fail to return to class on the scheduled "return date" following a leave of absence will be automatically terminated from the program. A student may return earlier than the scheduled return date as long as s/he returns at the beginning of a module that s/he has yet to successfully complete.
10. Students making tuition payments to the School remain under that obligation during a leave of absence.
11. The length of an LOA for a student who drops and later re-enrolls in the same program will be one half the number of weeks remaining to successfully complete the program.

## **SUSPENSION AND TERMINATION**

Students are required to follow all rules and abide by all regulations while on campus or at extern and to exhibit respect for others and self-discipline at all times. **ATA strives to maintain a safe learning/working environment and has a zero-tolerance policy for making threats to staff or students.** A student may be suspended or terminated for any of the following reasons:

1. Cheating or falsification/misrepresentation of material information in any School records including, but not limited to, application/enrollment paperwork, quizzes/exams, homework, and sign-in (attendance) sheets, whether inadvertent or deliberate;
2. Copyright infringement and/or unauthorized use/distribution of school materials, for which the appropriate authorities will be notified for possible prosecution under the fullest extent of the law;
3. Stealing, defacing, or mutilating any School property (e.g., computers, labs, classrooms, offices, restrooms);
4. Disobedience or disrespect toward an instructor or administrative staff member;
5. Disrespect toward another student or behavior creating a safety hazard to students and/or other persons at the School, as well as making any threatening comments while on campus, including breaks, or at externship;
6. Possession of drugs, alcohol, or weapons on school premises;
7. Excessive absenteeism, including tardies and early departures;
8. Failure to meet financial obligations; or
9. Any other determined infraction of misconduct.

A student who is suspended from school is marked absent for all days s/he is on suspension and is not exempt from applicable school policies regarding poor attendance. Additionally, a student on suspension will not be eligible to receive Title IV financial aid disbursements during the period of suspension. A student's refusal to sign the suspension form will not exempt him/her from the conditions of suspension and may lead to further disciplinary action including termination. If terminated for consecutive absences, the date of determination of the student's withdrawal will be either the third or tenth consecutive day of absence, as applicable to a particular program, for purposes of determining an applicable refund. Students have the right to appeal suspension or termination (*see section on Appeals*).

## **GRADUATION REQUIREMENTS AND CEREMONY**

Upon successful completion of the training program, a student will earn a diploma and final official transcript, provided the student meets all of the following conditions:

1. Achieves a minimum cumulative grade point average (GPA) of 2.0 for all programs;
2. Achieves a minimum cumulative attendance percentage of 80% for all programs;
3. Is present on the last scheduled day of the program; and
4. Satisfies all financial obligations to the School and completes an exit interview.

Diplomas and final transcripts are issued generally within four to six weeks of the completion date. During this time, graduates can request a formal letter verifying completion of the program provided the above conditions are met.

# General Policies & Information

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## ORIENTATION FOR NEW STUDENTS

Each department conducts a short presentation to all new starts, which is normally held before or during the first-class session. The orientation includes an introduction to ATA staff and a detailed overview of various ATA policies as outlined in this catalog. Prior to orientation, new students will sit for a picture for their ID badge and complete any outstanding paperwork.

## DRESS CODE

Students are expected to maintain a neat, clean appearance at all times during their training. Because a variety of equipment is used during training, certain items of clothing, such as shorts and open shoes, may not be worn for obvious safety reasons. Prospective students are provided the dress code policy during the enrollment process, which identifies more stringent requirements for certain programs. During the admissions process, applicants sign an acknowledgement form that they agree to abide by the policy and have received a copy of the policy. **Students are strongly advised to adhere to the dress code, as failure to do so can result in not being admitted to class or being dismissed from campus or extern and marked accordingly for attendance. Repeated infractions also can result in probation, suspension, or termination.**

## COMPUTER LAB / RESOURCE LIBRARY

ATA maintains an on-campus library available at all hours of operation, which has program-specific reference materials and computers for internet access to assist students and graduates with job placement. Students are prohibited from downloading or using any external software on ATA computers, which are to be used only for school/program purposes. Students may sign-out certain reference materials for a three-day period.

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

The American Trade Academy complies with the confidentiality and student record availability provisions of the Family Educational Rights and Privacy Act (FERPA) of 1974 and the Buckley Amendment. Confidentiality of student and staff records is strictly protected. However, students who are adults, parents of minors, or guardians of "tax dependent" students have the right to inspect and challenge the information contained in the student's record. The school complies with Title IX of the 1972 Educational Amendments, the Equal Opportunity Act of 1972 (Title VII) of the Civil Rights Act of 1964, and Section 504, Rehabilitation Act of 1973. Student information will not be disclosed without the student's written consent or request. However, FERPA allows schools to disclose relevant information about a student, without consent, to regulatory agencies and the U.S. Department of Education or to comply with a judicial order or lawfully issued subpoena. The student has the right to file a complaint with the U.S. Department of Education if the institution fails to comply with FERPA requirements. Complaints should be directed to Family Policy Compliance Office / U.S. Department of Education / 400 Maryland Avenue, SW / Washington, DC 20202-4605.

## TRANSCRIPTS AND RECORDS

Copies of unofficial or partial transcripts are available to a student upon request. Official and/or sealed transcripts can be mailed to other institutions upon written request and permission from the student. Students must complete the Petition Request form to be processed by the Student Services department for receipt of their transcript. A student will be provided one official transcript upon request at no charge. An administrative fee of twenty dollars (\$20.00) will be required for any additional official transcripts and ten dollars (\$10.00) for non-official transcript. ATA will withhold a student's transcript or grades if the student is in default on their tuition contract or is not in good financial standing. If the student has made partial payment to his or her tuition obligation, the institution may withhold only that portion of the grades or transcript that corresponds to the amount of tuition or loan obligation that the student has not paid. If the student's course of study consists of only one course, the institution may withhold the grade(s) or the transcript until the tuition or loan obligation is paid in full. All grades received during a student's enrollment will be reflected on the transcript, including the following: F, W, FRP, and FRF (*see section on Grading System for grade descriptions.*)

ATA maintains a file for each student that contains all requisite information on his/her enrollment, financial aid, and academic progress. Upon written request, a student may review his/her file during enrollment in the presence of an ATA employee and/or request to have the file copied, excluding any and all test materials. A copy of the file will be provided no later than 30 days following the request. Students have the right to review and/or amend their educational records no later than 30 days after the institution receives a written request. If the institution decides not to amend the record as requested by the student, the student will be notified of the decision and advised of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student



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when s/he is notified of the right to a hearing. Following the hearing, if the institution still decides not to amend the record, the student has a right to place a clarifying statement in the record. The institution is not required to consider requests for amendment to grades or disciplinary decisions.

No officer, administrator, or employee of The American Trade Academy shall release information concerning any enrolled/terminated student or graduate to a third party without the student's prior written consent with the exception of any regulatory agency. State law requires that this educational institution maintain school and student records for a five-year period. For graduates, a copy of the diploma and official transcript are maintained permanently.

## **SEXUAL HARASSMENT**

Sexual harassment of students or applicants in any form is unacceptable conduct that will not be tolerated. Sexual harassment includes unwelcome sexual flirtations, advances or propositions, requests for sexual favors, verbal abuse of a sexual nature, subtle pressure or request for sexual activities, unnecessary touching of an individual, graphic verbal commentaries about an individual's body, sexually degrading words, a display of sexually suggestive objects or pictures, sexually explicit or offensive jokes, physical assault, and other verbal, visual, or physical conduct of a sexual nature while at the College. No student, applicant, faculty member or other employee of The American Trade Academy shall threaten or insinuate, either explicitly or implicitly, that a student's or applicant's refusal to submit to sexual advances will adversely affect that person's application, enrollment, grades or educational experience. Similarly, no faculty member or employee shall promise, imply or grant any preferential treatment in connection with any student or applicant with the intent of rewarding for or engaging in sexual conduct.

Any student or applicant who feels that s/he is a victim of sexual harassment by any student, applicant, faculty member or other The American Trade Academy employee should bring the matter immediately, in person, to the attention of the campus director or ATA president or call the telephone number specified in this catalog. Any questions about this policy or potential sexual harassment should also be brought to the attention of the aforementioned school officials. The American Trade Academy will promptly investigate all allegations of sexual harassment in as confidential a manner as possible and take appropriate corrective action, if warranted.

## **CRIME AWARENESS AND CAMPUS SECURITY**

On a yearly basis, ATA publishes the *Campus Security Disclosure Statement* form that contains detailed information regarding crime statistics for the College. Additionally, the College distributes pertinent information related to the school's policies and procedures for maintaining campus security. This information provides the student with detailed information of the College's procedures and measures for crime prevention and instructions for reporting crimes. Information regarding sex offenders can be obtained at the website <http://www.meganslaw.gov>.

## **STATEMENT OF NON-DISCRIMINATION**

The College does not discriminate on the basis of race, color, religion, national or ethnic origin, sex, sexual orientation, gender identity or status, marital, parental, familial, Veteran, or military service status, age, or disability. The College complies with all local, state, and federal laws barring discrimination. Accordingly, equal opportunity for employment and admission shall be extended to all persons. All inquiries or complaints regarding these laws and regulations should be directed to the Campus Director or Director of Education, who will provide students with procedures available for resolving complaints relating to alleged unlawful discriminatory actions.

## **VETERANS INFORMATION**

Instead of a high school diploma or equivalent, veterans may submit a valid DD-214 form for admission to a program. Additionally, veteran applicants must provide the original or certified copy of transcripts for any postsecondary educational training, as applicable. An evaluation of these transcripts will be done prior to enrollment to determine if any prior credits can be accepted toward enrollment at ATA. If so, the applicant's enrollment will be shortened accordingly. All veteran applicants will meet with a VA certified school official in addition to the admission requirements included in this catalog. Transcripts and evidence of evaluation will be kept in the student's file.

ATA also maintains a policy for the refund of the unused portion of tuition, fees, and other charges in the event the veteran or eligible person fails to enter the program, withdraws or is terminated at any time prior to completion. The policy also provides that the amount charged to the veteran or eligible person for tuition, fees, and other charges for a portion of the program does not exceed the approximate pro rata portion of the total charges for tuition, fees, and other costs that the length of the completed portion of the program bears to its total length. For information or resolution of specific payment problems, the veteran should call the DVA at (800) 827-1000.

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Veteran students who fail to comply with either SAP Warning/Failure requirements or attendance/conduct probationary conditions will be terminated. To remain eligible for veterans' benefits, veterans and eligible persons must complete their program of study in the originally contracted length of time; therefore, the maximum timeframe policy does not apply. **Veterans and eligible persons who have not met the minimum SAP standards or the conditions of attendance/conduct probation by the end of the review period will be reported promptly to the VA, and their benefits will be interrupted. The student's academic progress is evaluated at the end of each module/course.**

## **PROGRAM AND POLICY CHANGES**

The institution, at its discretion, may make reasonable changes in program content, materials and equipment as it deems necessary in the interest of improving students' educational experience. ATA reserves the right to make changes in organizational structure, policy and procedures as circumstances dictate. When class size and curriculum permit, classes may be combined to provide meaningful instruction and training and contribute to the level of interaction among students. When federal, state, accreditation, or professional policy or standard changes occur, the institution is required to make appropriate changes and will attempt to minimize the effects of any change on current students.

## **JOB PLACEMENT ASSISTANCE**

Placement assistance is available at no additional charge to all students who successfully complete the requirements for graduation in their respective program but may be denied to a student/graduate who is uncooperative with ATA staff. **ATA does not guarantee placement.**

We frequently have career days in which employers come in and interview our students. Our extensive employer base allows for many different employment opportunities and geographical locations. Graduates provide an email address so they may receive important communication such as follow-up requests, employment lead opportunities, and continued interaction with the school.

While the securing of positions cannot be guaranteed, every avenue is pursued to assist students in obtaining desirable employment. ATA will do everything possible to provide students with the best and most up-to-date job placement opportunities. Although locating a job close to the student's home is desirable, sometimes the best jobs are located within a reasonable distance from the student's home. The Career Services department will instruct and guide students/graduates with career planning, interviewing techniques, résumé preparation, completing job applications, professional job counseling, professional attire workshops, interview follow-up, networking, and time management.

To assist staff in their career placement, students must adhere to the following guidelines:

- First impressions are vital. Being neatly dressed and having a clean appearance greatly enhance your chances of making a good impression. Smoking or chewing gum is not acceptable during job interviews; and excessive jewelry or body piercing may be cause for distraction during an interview.
- Being punctual for your interviews is crucial. In addition, you must advise your placement coordinator promptly of any cancellation or rescheduling of your interview(s), as s/he must be regularly informed of the status and results of your interviews – past, present, or future.
- The chance of placing a student is tremendously improved if the student also aggressively seeks employment opportunities and informs the Career Services department of his/her contacts and activities.
- The Career Services department never warrants, guarantees, or promises a particular level of compensation. Compensation depends solely on discretion of employers and their assessment of the graduate's ability to meet the requirements for hire.
- It is essential that the student be able to sell his/her abilities during an interview, along with program knowledge.

***OUR PLACEMENT SERVICES ARE ALWAYS AVAILABLE TO ATA GRADUATES!***

***PLACEMENT DOES NOT STOP WITH THE GRADUATE'S FIRST EMPLOYMENT SITE.***

***WE ENCOURAGE OUR GRADUATES TO RETURN FOR JOB PLACEMENT ASSISTANCE AT ANY TIME.***

# General Policies & Information

## **NOTICE CONCERNING TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION**

The transferability of credits you earn at ATA is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the certificate of completion you earn in your chosen program of study is also at the complete discretion of the institution to which you may seek to transfer. If the credits or certificate of completion that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason, you should make certain that your attendance at this institution (ATA) will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending ATA to determine if your credits or certificate will transfer.

Students are advised that ATA has not entered into an articulation or transfer agreement with any other college or university for the purpose of accepting transfer of credit. Upon receipt of a student's written request to transfer out, ATA will offer guidance regarding the transfer process. Assistance may include, but is not limited to, providing the student an official transcript, syllabi, and/or course outlines/descriptions.

### **TRANSFER OF CREDIT TO ATA**

The American Trade Academy has complete discretion as to which credits, if any, will be accepted from another institution. An applicant may appeal a transfer of credit decision (see Appeals policy in this catalog). ATA does not have an articulation agreement with any other institution of higher education. Also, there is no option to earn credit through examinations such as the following: ACT Proficiency Examination Program (PEP), the Regents' College Examinations, the College Board's Advanced Placement (AP) program and College-level Examination Program (CLEP), the Defense Activity for Non-Traditional Educational Support (DANTES), Subject Standardized Testing (DSST), or any other widely accepted industry certification.

Credit allowed will be reflected on the enrollment agreement, and the length of the program will be shortened accordingly. Any applicable third party (e.g., rehabilitation counselor, DVA, etc.) will be notified of the student's adjusted enrollment. Students who are granted such credit may also have their tuition reduced on a pro rata basis.

**Requirements:** Applicants with documented prior training in their chosen program of study must request credit evaluation during the admissions process for consideration of receiving applicable credit for that training. Such requests and valid documentation must be presented to and approved by the program director or a designee prior to signing the enrollment agreement.

Valid documentation includes, at minimum, an official academic transcript and syllabi/course outline from an institution accredited by an agency recognized by either the U. S. Department of Education (USDE) or the Council for Higher Education Accreditation (CHEA). Applicants with prior training from an institution that is not recognized by either USDE or CHEA should refer to the Course Challenge policy below.

**Evaluation of Credits:** While there is no minimum GPA requirement, transfer of credit is evaluated on the quality of credits earned from another institution relative to their comparability and applicability to the enrollee's chosen program at ATA. If a transfer of credit is accepted for a particular course, the grade earned at the other institution for that course will be added to the student's academic record for the corresponding course at ATA. *Note: ATA does not issue "+ or -" letter grades (e.g., B+, C-), so only the letter grade (e.g., B, C) will carry over to the student's record.*

**Testing for Transfer of Credit:** Instead of accepting a transfer of credit, ATA may choose to administer a comprehensive written and/or oral exam for each module to measure or affirm the applicant's previous education and training. The evaluation can include an assessment of lab skills, as applicable, for the applicant to demonstrate sufficient knowledge and skills in a clinical or lab setting. A minimum score of 75% on each exam is required in order to receive credit for that particular course. If passing, the grade earned on such exams will be added to the student's academic record at ATA. If an exam is failed, the student will not receive transfer of credit and must take the course offered by ATA. Courses taken outside of an institutional setting (e.g., workplace, apprenticeship, training programs) will not be considered.

**Tuition Calculation for Transfer of Credit:** Provided below are the steps taken by which tuition and fees will be adjusted following acceptance of a transfer of credit.

1. Divide the tuition charges by the total number of clock hours in the program to determine the per-hour tuition charge. (Refer to the Program Tuition Chart in this catalog.)
2. Multiply the number of clock hours approved for transfer of credit by the per-hour tuition charge to determine the amount of transfer of credit charges.

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3. Subtract the transfer of credit charges from the tuition charges to determine the amount of prorated tuition.
4. The STRF fee will be prorated based on the prorated tuition charges.
5. Add the prorated tuition charges (step #3), the prorated STRF fee (step #4), and the registration fee to determine the adjusted total institutional charges.

**Associated Fees:** There are no fees for testing, evaluation, or granting transfer of credit; and there are no potential ramifications for financial aid.

## **CREDIT FOR PRIOR EDUCATION OR TRAINING**

A student requesting to receive credit for prior education or employment must submit copies of school transcript(s) demonstrating a 3.5 GPA proficiency and/or relevant work history to the Admissions Office for school review, as well as successfully pass the module test at no less than 80% (at no charge). Outside training which may be accepted includes FOA Certification or similar. No standardized academic test will be accepted for unit credit. The school may accept credit for directly relevant courses and/or employment history, which is equivalent to the chosen program training up to a maximum of one class module within the applicant's selected program area. Prospective students may appeal any decision in writing directly to the school director prior to enrollment. School costs will be 100% prorated for the module hours credited. Additionally, The American Trade Academy will factor in and account for previous class units attempted versus units completed to assure that successful completion may be achieved within 150% of scheduled class length. Any accepted credits will reduce the applicable hours required, and tuition would be prorated accordingly.

## **PROGRAM TRANSFERS**

Students who have begun their training and wish to transfer to another program must seek permission from the Director of Education. Students transferring to a completely new program will be dropped from the current program and enrolled into the new program as a new student under the current catalog and complete a new enrollment agreement.

## **RE-ENTRY**

Students who were terminated or who voluntary withdrew from their program must submit a letter requesting approval to re-apply. The letter must clearly demonstrate that the condition(s) causing dismissal to have been corrected to afford ATA management a measure of confidence in the student's ability to succeed. Upon such approval, the applicant may apply for another enrollment and must follow all admissions policies and procedures, except for the entrance test. Entrance test scores are good for life, unless the student's previous scores do not meet revised minimum standards. Applicants approved to re-enter the program will be evaluated by the director of education or a designee for evaluation of retained skills. This evaluation will determine whether the student's level of retained skills and knowledge is sufficient to warrant excusing the student from repeating certain modules that s/he passed during a prior enrollment. The length of any allowable LOA will be based on the student's new re-entry schedule.

If a student was terminated for not fulfilling his/her financial obligation to ATA, s/he must make arrangements to satisfy any outstanding balance to be considered for readmission. Students who are terminated or voluntarily withdraw a second time will not be eligible to reapply for 12 months from the date of determination of their second termination.

## **PERSONAL PROPERTY / LIABILITY**

ATA is not responsible for loss or damage to personal property or for personal injury. This includes, but is not limited to, inadvertent mishaps with facility equipment or any other potential hazard that may occur while on the school grounds or at a school function outside the facility. ATA strongly advises students to obtain their own health insurance coverage for the period of their enrollment in order to cover any potential costs due to unforeseen injuries while enrolled.

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## DRUG AND ALCOHOL PREVENTION PROGRAM

In compliance with federal and state law, The American Trade Academy maintains a program to prevent the illicit use of drugs and the abuse of alcohol by its students and employees. All enrolled students are informed that unlawful manufacture, distribution, dispersion, possession, or use of a controlled substance or alcohol within the premises of the school or during any activities conducted off-campus is strictly prohibited and must sign a statement indicating that they are aware and will abide by ATA's Drug Prevention program. Students violating this policy will be subject to immediate termination. Information on drug abuse prevention is available at the College for all students and employees. The program consists of:

1. Distribution of the *Drug & Alcohol Abuse Policy Statement* form (provided at time of enrollment) that describes the perils of drug abuse, including life threatening factors and other health risks associated with the use of illicit drugs and alcohol. Students are required to sign and date this form for inclusion in their file.
2. Availability of drug and alcohol counseling, community treatment or rehabilitation programs and/or services.
3. Referrals to workshops and seminars with outside experts conducting lectures on anti-drug abuse. Faculty and student peers have an obligation to act on concerns regarding alcohol or drug abuse or dependency when encountered in the student. Students who need counseling assistance for drug or alcohol dependency should contact the Campus Director, Program Director or Student Services for referrals. All referrals will be kept confidential.
4. The primary goal of students at the College is to achieve academic excellence. Illegal use of alcohol and other drugs will not be tolerated. Also, irresponsible use of alcohol by persons of legal age will not be excused.
5. At no time will the College allow possession, use, and/or distribution of an illegal drug.
6. Students, employees, and guests must adhere to federal, state and local laws and regulations.
7. The College will impose disciplinary action against students and employees for violating these standards of conduct, which may include suspension, termination of employment, or completion of a drug or alcohol rehabilitation program.
8. Information on Drug Awareness programs, counseling, treatment, and other related services are available through:  
The Center for Drug Abuse Treatment and Referral Hotline: 1-800-662-HELP
9. Students and employees seeking assistance in overcoming drug or alcohol related problems are encouraged to contact this organization.

The following guidelines describe the actions that may be taken when students are suspected of violating drug or alcohol policies:

- Faculty or peers who suspect a student of alcohol or drug use/dependency (based on a pattern of behavior consistent with impairment) will document specific behaviors or confirmed evidence of such impairment. This documentation will be submitted in writing to the Campus Director who will determine the action to be taken. If the Campus Director and involved faculty feel the evidence is compelling and indicates violation of drug and alcohol policies, the student will be confronted with the concerns and evidence. The Campus Director and involved faculty will decide what type of follow-up is indicated, based on the outcome of this conference.
- If reasonable suspicion of alcohol or drug use occurs in the classroom or clinical setting, the student will be **immediately** removed from that setting. The faculty member will discuss the concerns with the student. If reasonable suspicion still exists, the Director of Education (or Campus Director in his/her absence) will be informed and will determine what actions need to be taken. Screening for drugs or alcohol will be required. The student will have to give consent for such testing and authorization for results to be made available to the College.

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## STUDENT/EMPLOYEE FRATERNIZATION

Employees of the College are prohibited, under any circumstances, to date or engage in any fraternization or undue familiarity with students, regardless of the student's age and/or regardless of whether the student may have consented to such conduct. Further, employees may not entertain students or socialize with students outside of the school environment. Similarly, any action or comment by an employee which invites romantic or sexual involvement with a student is considered highly unethical, in violation of school policy, and may result in disciplinary action by the school.

Inappropriate employee behavior includes, but is not limited, to: flirting; making suggestive comments; dating; requests for sexual activity; physical displays of affection; giving inappropriate personal gifts; frequent personal communication with a student (via phone, e-mail, letters, notes, text messaging, social networks, etc.) unrelated to course work or official school matters; giving or accepting rides; giving or offering housing; selling or buying anything even of nominal value; providing alcohol or drugs to students; inappropriate touching; and engaging in sexual contact and/or sexual relations.

We also expect that our students will behave in a professional manner towards faculty and staff and will follow the same guidelines as are presented here for employees. If a student witnesses or hears of a school employee's participation in an inappropriate relationship with a student, we ask that the incident be reported to the School Director immediately.

## SMOKING

The American Trade Academy maintains a smoke-free environment. Smoking areas are designated outside the school facility. Smoking is not permitted in restrooms, classrooms, or other interior areas of the College. Violation of this policy will result in disciplinary action.

## FOOD AND DRINKS / STUDENT LOUNGE

No food (including candy and gum) or open drinks are allowed in school buildings, unless approved by ATA management. Only closed-lid bottles are permitted. Additionally, no food may be eaten in the front entrance areas, lobbies, classroom, hallways, bathrooms, or stairwells. A student lounge is available for eating and leisure during breaks. Students are strongly advised to respect the rights of all students and staff by maintaining a clean environment.

## PERSONAL CALLS AND VISITS

**Students cannot use ATA's office telephones for personal use, and cell phones must be turned off during class.** Messages will be taken if ATA receives a call for a student. If the call appears to be a valid emergency, every effort will be made to find the student and relay the message.

Visitors are welcome to ATA and must check in at the front desk. A guided tour will be arranged by appointment. **Children are not allowed in classrooms or labs at any time and cannot be left unattended.** Students are strongly advised that, due to federal privacy laws, ATA staff will not reveal a student's status to anyone visiting the campus, including family members. Exceptions will be made to those persons indicated by the student on his/her Buckley Amendment form or to comply with a judicial order or lawfully issued subpoena.

## FIELD TRIPS AND GUEST SPEAKERS

Field trips to program-related facilities may be scheduled by the instructor. The purpose of field trips is to augment classroom instruction by exposing students to the working world in their respective career field. Guest speakers may be invited to reinforce classroom training. Students are required to attend all scheduled field trips instead of attending school for that day or they will be marked absent.

## TUTORIAL ASSISTANCE

The American Trade Academy provides tutorial assistance for students experiencing academic difficulties, and such students may be required to participate in remedial classes outside of regular class time. Instructors make every effort to identify students in need of assistance. However, students are urged to take the initiative in seeking help directly with their instructor. Faculty and staff are committed to assisting students with academic advising and tutoring, when needed. Students are strongly encouraged to meet with their instructors to discuss any academic concerns.

# General Policies & Information

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## **STUDENT ACADEMIC ADVISEMENT**

ATA's faculty and staff are available to advise students on academic problems and, if necessary, to provide referral to special counseling services when deemed appropriate. All efforts will be made to provide a supportive environment to assist each student in maintaining his/her academic progress in order to successfully complete the program.

## **CHANGE OF ADDRESS**

Students must submit a Request Form indicating any change of address or telephone number(s) immediately to the Student Services department. Request forms are available at the front desk.

## **GENERAL ASSISTANCE (HOUSING, CHILD CARE, TRANSPORTATION)**

ATA does not have any dormitory facilities under its control but maintains information pertaining to local temporary housing, child-care facilities, babysitting services, and local transportation, all of which will be provided upon request. ATA also does not have any responsibility to find or assist a student in finding housing. In the city of Carson, rent for a one-bedroom apartment can vary greatly from \$800.00 to \$2,000.00 per month. If other information is required, please make your request at the front desk.

## **GRADUATE REFRESHER COURSES**

The institution offers its graduates skill refresher courses. Courses or modules may be audited at no additional charge, subject to space and equipment availability. The cost of any books and supplies will be the responsibility of the graduate. Upon requesting a refresher course, graduates will meet with the director of education for an assessment of the graduate's specific needs. In order to audit the course, the graduate must have graduated from the school within the previous 12 months.

## **CAREER SERVICES**

The Career Services Department is a vital part of the student's educational program. Although employment cannot be guaranteed, the purpose of the department is to actively assist students and graduates in obtaining desirable employment. The American Trade Academy provides job placement services, and the Career Services Department assists students and graduates in a broad range of career planning and advising including: interviewing skills and follow-up; developing job opportunities through leads and networking; the full hiring cycle starting with resumes and job applications; and professional attire workshops. Graduates receive an ATA Certificate of Completion and qualify for entry-level positions in fiber, copper, cable, satellite telecommunications, audio/video, security, and low voltage wiring or in the private security guard employment fields.

Students and graduates are strongly encouraged to take advantage of every opportunity to work with the Career Services Department to sharpen their interviewing and presentation skills. Successful employment assistance is dependent upon a mutual, dedicated effort by both the graduate and the Career Services Department. Graduates are also encouraged to aggressively seek employment opportunities on their own, keep records of their contacts, and inform their Career Services department of these efforts.

Employment assistance services are available to all students who successfully complete the requirements for graduation in their program. Employment opportunities may be limited for anyone who has a criminal background. Although a High School Diploma or GED (Ability-to-Benefit) may not be a requirement for enrollment into your respective program, without a High School Diploma or GED (Ability-to-Benefit), your employment opportunities may be limited.

## **ADMINISTRATIVE STAFF**

School Director:	Paul Bonagura	Administration Manager:	Christopher Bello
School Director:	Eric Rubenstein	Administrative Assistant:	Karina Marroquin

# General Policies & Information

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## **FACULTY QUALIFICATIONS**

Instructors must have a combination of at least three years of work-related experience and training or education in the occupation/job title category for which they are hired to teach. Please see chart below for list of instructors.

<b>Name</b>	<b>Program of Instruction</b>	<b>Qualifications</b>
June Perez	All Telcom Classes	20 years industry experience
Allen Gates	Telephony; Fiber; Com 100	33 years industry experience
Ron Smith	Security, Surveillance and Alarm Technician, Home Audio and Video Technician	40 years industry experience
James McConnell	All Telcom Classes	28 years industry experience
Joseph Dinunzio (Substitute)	All Telcom Classes	35 years industry experience
Paul Bonagura (Substitute)	All Telcom Classes	28 years industry experience

## **APPEALS**

Students may appeal decisions on suspension, termination, and denial of credit transfer if they believe them to be unjust. A written appeal must (i) specify the basis for the request, (ii) include any relevant documentation, and (iii) be submitted to the school within five (5) days of such a decision. After review by management, the School will respond to the appeal within three (3) days of it being filed.

## **STUDENT APPEAL PROCESS**

Students have the right to appeal decisions made and policies enforced by the school. Appeals may be requested based upon the following circumstances:

- Final grades
- Attendance
- Enforcement of school policies resulting in a change in status or disciplinary action

Appeal of a final grade or attendance:

- Students disputing a final grade or attendance must first meet with or email the instructor within five business days of the last scheduled class day.
- The student must provide evidence substantiating the request.
- The instructor must review, make a determination, and meet with the student to communicate the decision within three business days.
- The student may appeal the instructor's decision and must email or turn in the hard copy of the appeal to the School Director within three business days of the instructor's decision.
- The School Director must review, make a determination, and meet with the student to communicate the decision within three business days.
- The decision of the School Director is final.

Appealing enforcement of School policies:

- Students disputing a decision based on enforcement of School policies resulting in a status change or disciplinary action must appeal in writing within five business days of the decision and submit documentation to the School Director.
- An appeals panel will be convened within three business days of receipt of the appeal.
- An appeals panel will review, make a determination, and meet with the student within three business days.
- Prior to the appeal panel's final decision, students may choose to appear to present additional information.



# General Policies & Information

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## COMPLAINT PROCEDURE

When problems arise, students should make every attempt through ATA's formal complaint procedure to find a fair and reasonable solution to the matter. Students are encouraged to bring any complaints first to the attention of their instructor who will attempt to resolve the problem. If the instructor is unsuccessful or unable to assist the student, then s/he will notify the director of education or school director who will investigate the complaint by gathering information and documentation. Upon the school director's review and determination, the student will be informed of the decision and a summary of the decision maintained on file.

**Bureau for Private Postsecondary Education (BPPE):** A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 or by completing a complaint form, which can be obtained on the bureau's internet web site: [www.bppe.ca.gov](http://www.bppe.ca.gov).

Unresolved complaints may also be directed to the state licensing agency by mail: Bureau for Private Postsecondary Education (BPPE) at 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833.

**WIA** participants also may be directed to their respective WIA representatives. Participants are requested to see the Student Services department for their counselor's address and phone number.

## NO WEAPONS POLICY

The institution prohibits all persons who enter school property from carrying weapons of any kind, regardless of whether or not the person is licensed to carry the weapon. Failure to abide by this policy will lead to dismissal.

## STUDENT RECORD RETENTION

The College will maintain student records for each student, whether or not the student completes the educational program, for a period ending five years after the date of the student's graduation, withdrawal, or termination (with the exception of students who cancel their program). Student transcripts will be maintained indefinitely. The student records shall be retrievable by student name and shall contain all of the following applicable information:

- Written records and transcripts of any formal education or training relevant to the student's qualifications for admission to the College;
- Copies of all documents signed by the student, including contracts, instruments of indebtedness, and documents relating to financial aid;
- Copies of all tests given to the student before admission; records of the dates of enrollment and, if applicable, withdrawal, leaves of absence, and graduation;
- A transcript showing all of the classes and courses or other educational services that were completed or were attempted but not completed and grades or evaluations given to the student;
- A copy of documents relating to student financial aid that are required to be maintained by law or by a loan guarantee agency;
- A document showing the total amount of money received from or on behalf of the student and the date or dates on which the money was received;
- A document specifying the amount of a refund, including the amount refunded for tuition and the amount for equipment, the method of calculating the refund, the date the refund was made, the check number of the refund, and the name and address of the person or entity to which the refund was sent;
- Copies of any official advisory notices or warnings regarding the student's progress; and
- Complaints received from the student, including any correspondence, notes, memoranda, or telephone logs relating to a complaint.
- The College shall maintain records of student attendance.

## STUDENT TUITION RECOVERY FUND (STRF) DISCLOSURES

(a) A qualifying institution shall include the following statement on both its enrollment agreement and school catalog:

"The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled, or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or

# General Policies & Information

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it must be paid on your behalf, if you are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if you are not a California resident, or are not enrolled in a residency program.”

(b) In addition to the statement required under subdivision (a) of this section, a qualifying institution shall include the following statement in its school catalog:

“It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the school. Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833, (916) 431-6959 or (888) 370-7589.

To be eligible for STRF, you must be a California resident or are enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The institution, a location of the institution, or an educational program offered by the institution was closed or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did not complete a chosen teach-out plan approved by the Bureau.
2. You were enrolled at an institution or a location of the institution within the 120-day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120-day period before the program was discontinued.
3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution, in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.
4. The institution has been ordered to pay a refund by the Bureau but has failed to do so.
5. The institution has failed to pay or reimburse loan proceeds under a federal student loan program as required by law, or has failed to pay or reimburse proceeds received by the institution in excess of tuition and other costs.
6. You have been awarded restitution, a refund, or other monetary award by an arbitrator or court, based on a violation of this chapter by an institution or representative of an institution, but have been unable to collect the award from the institution.
7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and have an invoice for services rendered and evidence of the cancellation of the student loan or loans.

To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF.

A student whose loan is revived by a loan holder or debt collector after a period of non-collection may, at any time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a written application for recovery within the original four (4) year period, unless the period has been extended by another act of law.

However, no claim can be paid to any student without a social security number or a taxpayer identification number.”

Note: Authority cited: Sections 94803, 94877 and 94923, Education Code. Reference: Section 94923, 94924 and 94925, Education Code.

# Financial Assistance & Payment

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## **TUITION PAYMENT**

Tuition is payable in advance and due at the time of enrollment, unless other arrangements are made prior to commencement of classes. Student payments may be made in the form of cash, check, credit card, or loan proceedings, and are payable to The American Trade Academy. Checks returned for insufficient funds will be charged the current processing fee, as published in this catalog. If tuition payments made by check are returned more than once for insufficient funds during the term stated on the enrollment agreement, all future payments must be in cash or by money order.

### **Past Due Accounts:**

Delinquent tuition payments over 30 days may cause an interruption to a student's training. Delinquent tuition beyond 180 days may be turned over to an outside agency for collection efforts. Students who have been dismissed for non-payment of tuition will not be considered for re-admittance until all delinquent tuition payments have been paid in full. ATA reserves the right to withhold student transcripts for completed clock/credit hours that have not yet been paid.

## **CANCELLATION**

You have the right to cancel the enrollment agreement for the program of instruction, and obtain a refund of charges paid through attendance at the first class session, or seventh day of enrollment, whichever is later, including any equipment such as books, materials and supplies or any other goods related to the instruction offered in the agreement. You may cancel until midnight of the 7<sup>th</sup> calendar day after any of the following: (a) the first class you attended; (b) you received a copy of a notice of cancellation; or (c) you received a copy of the agreement and applicable disclosures. Cancellation shall occur when you give written notice of cancellation at the address of the School shown on the front page of the enrollment agreement. You can do this by mail, hand delivery, or email. If you cancel the agreement, the School will refund any money that you paid within 45 days after receipt of your notice of cancellation.

*Note: The registration fee is refunded if a student cancels enrollment within the first 7 calendar days of instruction.*

Additionally, the School also may reject an applicant for enrollment; and, an applicant accepted by the institution may cancel his/her agreement prior to the scheduled class start or may never attend class (no show). The School may consider a withdrawal after the class start as a cancellation or no show and, therefore not consider the applicant as a new start. Additionally, the School reserves the right to postpone or cancel a scheduled program or course if the registration is insufficient to establish a class.

## **REFUNDS AFTER WITHDRAWAL FROM PROGRAM**

As a student at ATA, you have the right to withdraw from your program of study at any time. If you withdraw or are dismissed after the period allowed for cancellation of the agreement, which is until midnight of the 7<sup>th</sup> calendar day following the first class you attended, ATA will remit a refund, less any applicable registration fee, not to exceed \$200.00 (\$10.00 for VA), STRF fee, and those administrative charges listed in the School Catalog under the section titled *Other Fees* within 45 days following the date of determination of your withdrawal.

### **Pro Rata Refund Policy**

ATA applies a 60% pro rata refund calculation for students who withdraw or are terminated from their training before completing the stated period of enrollment. Under a 60% pro rata refund calculation, ATA will retain only the percentage of charges proportional to the period of enrollment completed up to 60% or less by the student.

After completing more than 60% of the program, ATA will retain 100% of the charges for the enrollment period. The percentage of the period of enrollment completed by the student is calculated by dividing the number of scheduled hours completed in the period as of the student's last date of attendance by the total number of program hours in the period of enrollment. A refund is calculated using the following steps:

1. Determine the tuition institutional charges for the period of enrollment.
2. Divide the tuition charges by the total number of hours in the period of enrollment to determine the tuition charges per hour.
3. The total institutional charges are calculated by multiplying the total scheduled hours completed as of the student's last date of attendance by the tuition charges per hour, and then adding costs for the registration fee, STRF fee, and those administrative charges listed in the School Catalog under the section titled *Other Fees*, as applicable.

# Financial Assistance & Payment

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The refund will be any amount in excess of the total institutional charges (calculated in step 3) against the total payment paid to the School. The amount not paid by the student for the total institutional charges is the amount the student owes to the School.

**If the amount that you have paid is more than the amount that you owe for the time you attended, then a refund will be made within 45 days of the date of determination of your withdrawal/termination. If the amount that you owe is more than the amount that you have already paid, then you will have to make arrangements to pay the balance.**

## Refund Examples

1. **Student completed 60% or less of the program:** A student enrolled in a 600-clock hour program, but was terminated after completing 200 clock hours. The student paid \$5,000 as of the withdrawal date (charges listed below):

Tuition:	\$ 11,150.00
Registration Fee:	200.00
STRF Fee:	0.00

(a) Tuition charge per hour is \$18.58 (\$11,150.00 divided by 600 clock hours)

(b) Total institutional charges equal \$3,916.67 (\$18.58 x 200 hours) + \$200 reg fee + \$0.00 STRF fee

(c) Refund amount is \$1,083.33. (\$5,000.00 – \$3,916.67)

2. **Student completed more than 60% of the program:** A student enrolled in a 600-clock hour program, but was terminated after completing 500 clock hours. The student paid \$5,000 as of the withdrawal date (charges listed below):

Tuition:	\$ 11,150.00
Registration Fee:	200.00
STRF Fee:	0.00

(a) Tuition charge per hour is \$18.58 (\$11,150.00 divided by 600 clock hours)

(b) Total institutional charges equal \$11,350.00 (\$11,150.00 + \$200 reg fee + \$0.00 STRF fee); total institutional charges are due since student completed more than 60%

(c) Balance owed by student is \$6,350.00 (\$11,350.00 – \$5,000.00)

## DETERMINATION OF WITHDRAWAL DATE

The student's withdrawal date is the last date of physical attendance as determined by the institution from its attendance records. The withdrawal date for a student who does not return from an approved leave of absence (LOA) is set retroactively to the last date of attendance before the LOA started.

## OTHER AVAILABLE FINANCIAL ASSISTANCE PROGRAMS

The American Trade Academy does not participate in any federal or state financial aid programs. If you obtain a loan to pay for your educational program, you are responsible for this amount. If you get a student loan, you are responsible for repaying the loan amount plus any interest, less the amount of any refund. This institution nor any of its programs are not accredited by an accrediting agency recognized by the United States Department of Education and the institution is not eligible for federal financial aid programs. The Institution does not offer degree programs.

### **Veterans Benefits**

The GI Bill and Post 9/11 are a few of the VA programs available for our veteran students. If you believe you may qualify, contact your local Veterans Administration Office for assistance.

### **Agency Programs**

Work Investment Act, State Rehabilitation and Displaced Workers programs are available through various agencies. ATA participates with several state and local agencies that provide these programs. If you are receiving unemployment benefits or are on a subsidy program, contact your local agency office to see if you qualify for one of these programs.

# Tuition & Program Information

## TUITION CHART

Program	Tuition	Reg. Fee <sup>1</sup>	Books/Supplies	Certification Fee	Total <sup>2</sup>
Cable Television Technician	\$5,200.00	\$200.00	\$400.00	\$150.00	\$5,950.00
Cable Television and Satellite Technician	\$5,500.00	\$200.00	\$600.00	\$250.00	\$6,550.00
Advanced Telecommunications Technician 1	\$9,850.00	\$200.00	\$1,000.00	\$450.00	\$11,500.00
Advanced Telecommunications Technician 2	\$11,000.00	\$200.00	\$1,175.00	\$450.00	\$12,825.00
Advanced Telecommunications Technician 3	\$11,000.00	\$200.00	\$1,175.00	\$450.00	\$12,825.00
Advanced Telecommunications Technician 4	\$12,500.00	\$200.00	\$1,425.00	500	\$14,525.00
Fiber Optic Technician	\$5,100.00	\$200.00	\$500.00	\$150.00	\$5,950.00
Audio and Video Technician	\$5,700.00	\$200.00	\$500.00	\$150.00	\$5,950.00
Pole Climbing and Ladder Safety	\$2,625.00	\$200.00	\$150.00	\$0.00	\$2,975.00
Private Security Guard	\$1,099.00	\$200.00	\$100.00	\$100.00	\$1,499.00
Private Security Guard with Taser and Firearm	\$1,699.00	\$200.00	\$350.00	\$250.00	\$2,499.00
Satellite Technician	\$1,075.00	\$200.00	\$200.00	\$100.00	\$1,575.00
Alarm and Camera Technician	\$5,700.00	\$200.00	\$500.00	\$150.00	\$5,950.00
Structured Cabling Technician	\$5,200.00	\$200.00	\$500.00	\$50.00	\$5,950.00

The charges for a period of attendance and total charges for the entire program are the same.

- <sup>1</sup> All applicants are charged a \$200.00 non-refundable registration fee at the time of application. However, this fee will be refunded if the student cancels his/her enrollment within the first seven (7) days of instruction.
- <sup>2</sup> The schedule of total charges for a period of attendance and the estimated schedule of the total charges for the entire educational program are listed above.

**ATA reserves the right to revise tuition/fees and/or curricula/textbooks at any time, as required. Any changes in tuition or fees will not affect those students in attendance at the time of such changes.**

### **Textbook Information:**

All textbooks at The American Trade Academy are included in the cost of tuition and are distributed at the beginning of each program. Textbooks, once distributed, are the property of the student.

### **OTHER FEES**

**Transcript:** A \$20.00 fee will be charged for any additional official transcripts issued after the first one, which is provided at no charge and a \$10.00 fee will be charged for any non-official one.

**ID Badge:** A \$10.00 fee will apply to replace an ID badge.

**Returned Check:** A \$50.00 fee will be charged if a check is returned unpaid to ATA. This fee is added to the amount of the bounced check, and the total payment must be paid.

**Late Payment:** A \$20.00 fee will be charged for late payments 10 or more days delinquent on agreed-to tuition installments made directly with ATA, unless the student has made prior arrangements with the administrative office.

**Additional Uniforms and Textbooks:** Charges will be at the current rate. Used books, if available, will be charged at one half the current price.

# Tuition & Program Information

## **PROGRAM CHART**

This chart reflects all program offerings, including total length in clock hours and weeks. Following each program is the educational objective, prerequisites, program outline, and course description.

<b>Program</b>	<b>Length In Weeks</b>	<b>Lecture Hours</b>	<b>Lab Hours</b>	<b>Total Clock Hours</b>
Cable Television Technician	6	77.25	96.75	174
Cable Television and Satellite Technician	8	100.25	131.75	232
Advanced Telecommunications Technician 1	20	254.25	325.25	580
Advanced Telecommunications Technician 2	26	332	422	754
Advanced Telecommunications Technician 3	26	332	422	754
Advanced Telecommunications Technician 4	32	409.25	518.75	928
Fiber Optic Technician	6	77.25	96.75	174
Audio and Video Technician	6	77.25	96.75	174
Pole Climbing and Ladder Safety	2	40	40	80
Private Security Guard	1	30	10	40
Private Security Guard with Taser and Firearm	2	54	26	80
Satellite Technician	2	23	35	58
Alarm and Camera Technician	6	77.25	96.75	174
Structured Cabling Technician	6	77.25	96.75	174

## **PROGRAM ADVISORIES & LICENSURE/CERTIFICATION REQUIREMENTS**

Under California law, the College must take reasonable steps to ensure you are eligible for licensure if you choose a program that prepares you for a field where licensure is required. There are numerous eligibility requirements for licensure, depending on the field (*see specific programs below*). Be sure to carefully read these requirements and do further research if you have any concerns about your ability to achieve licensure. You may discuss any concerns with your admissions representative and director of education. If you choose to pursue training despite the fact that you may not be able to achieve licensure, you must indicate that and sign a release to that effect. Licensure requirements for other states may vary. Students are responsible for obtaining the most recent application requirements for any state in which they intend to become employed.

### **Private Security Guard Programs**

For both of these programs, students must meet licensing requirements set forth by the Bureau of Security and Investigative Services (BSIS) in order to receive a "Guard Card". These requirements include a positive background check and fingerprinting, the cost of which are included in the tuition. Please visit [www.bsis.ca.gov](http://www.bsis.ca.gov) for more information.

# Tuition & Program Information

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## STANDARD OCCUPATIONAL CLASSIFICATION (SOC) CODES:

Below are the Standard Occupational Classification (SOC) codes for ATA's program offerings. After successful completion, graduates can enter into any of the following occupations as listed by these O-Net-SOC codes:

### Telecommunications Occupations and Job Titles

Installer	49-2022.00
Cable Installer	49-9052.00
Lead Technician	49-2022.00
Crew Supervisor	41.1012.00 <i>First-line supervisor of non-retail/sales workers</i>
Field Technician	49.9052.00
Service Technician	49.2022.00
Fiber Optic Installer	49.9052.00
Inside Plant Assembly	49.2022.00
Home Theater Installer	49.2097.00
Field Service Technician	49.9052.00
Home Service Technician	49.2097.00 <i>Electronic Home Entertainment Equipment Installer &amp; Repair</i>
Outside Plant Cable Installer	49.2022.00
Customer Service Technician	49.2022.00
Fiber Optic Broadband Technician	49.9052.00
Home Audio & Video Service Tech	27.4011.00
Line Installers & Repair	49.2022.00
Telecommunications Equipment Installers & Repair	49.2022.00
Security Technician	49.2098.00
CCTV Installation Tech	49.9052.00
Cable & Satellite Installer	49.2022.00
Security & Fire Alarm Systems Installers	49.2098.00

### Security Guard Occupations and Job Titles

Other Protective Service Workers	33-9000
Security Guards	33-9032
Miscellaneous Protective Service Workers	33-9090
Security Guards & Gaming	
Surveillance Officers	33-9030

## JOB DESCRIPTIONS:

**Telecommunications Cabling Technician (Inside plant)** This construction-oriented position requires the technician to be highly skilled and knowledgeable. The technician will be involved with various cable types and must understand how to install, terminate and test all of them. Technicians should understand the industry standards of installation as well as the relevant articles of the National Electric Code. They will be familiar with various products to be able to make suggestions in different situations and be able to overcome various obstacles to complete the job. Cabling Technicians will travel to different locations and should be able to identify and cope with the different installation applications for telecommunication cabling. They will work with various hand tools in a construction environment. Work may be performed in an existing office space or other facility, which may require good customer relation skills, a professional appearance and attitude. A good portion of many projects is installing, placing, or pulling the cables to the various areas within a building or campus environment. This position requires intelligence, physical ability and problem-solving skills. Having your own hand tools, reliable transportation and a positive work attitude are often necessary.

# Tuition & Program Information

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## **Fiber Optic Installer (Outside Plant)**

As an outside plant cable installer, the crew is responsible for either placing cable underground in trenches or conduit, or by hanging it from poles and aerial applications. Cabling is nearly always installed with machinery, taking the work load off of the technicians. The fiber optic installers will be responsible for terminating and splicing the fiber into splice cases or equipment cabinets. Splicing is usually performed inside a specialty trailer or tent to protect the delicate equipment. A lot has been said about FTTP projects and this course prepares the client for lucrative career in the broadband industry.

Both inside and outside plant technicians may be responsible for testing and certification of the installed cabling systems. Technicians in these positions must be very well versed in the technologies behind fiber optic and copper cabling systems and must know how to operate all types of test equipment. Graduates of The American Trade Academy will be fluent in the operation of LAN cable certifiers, optical power meters, optical fault locators, and Optical Time Domain Reflectometers (OTDRs), making them well suited for these demanding and high paying positions. These positions require very little physical ability, but require strong trouble shooting skills.

## **Fiber Optic Assembler (Manufacturing)**

In a manufacturing environment, technicians will usually be placed at assembly tables where they will work in the manufacture of optical components, assemblies, and sub-assemblies. These positions require minimal physical ability but do require good eyesight or the use of magnifiers.

## **Cable Television (CATV)/Digital Satellite (DSS) Installer**

The CATV/DSS installer daily tasks will consist of visiting customer sites to install CATV or DSS television systems. Installers must demonstrate excellent customer relations skills. This position requires good physical strength as many installations may require ladder or pole climbing. Installers must be able to work unsupervised, maintaining the expected level of workmanship and safety habits. Sales skills may be beneficial as many providers reward installers for selling premium viewing packages to customers. The installer will be responsible for completing the cable installation from the pole/pedestal to the home, mounting the dish to the roof, and connecting customer equipment such as televisions, VCRs, stereos, etc.

## **Cable Television (CATV) Installer**

The CATV installer daily tasks will consist of visiting customer sites to install, test and troubleshoot CATV television systems, high speed modems, telephony service or customer upgrades. Installers must demonstrate excellent customer service skills. This position requires good physical strength as many installations may require ladder or pole climbing. Installers must be able to work unsupervised, maintaining the expected level of workmanship and safety habits. Sales skills may be beneficial as many provider's reward installers for selling premium viewing packages to customers. The installer will be responsible for completing the cable installation from the pole/pedestal to the home, and connecting any customer equipment such as televisions, DVRs, DVDs, VCRs, stereos, video games, etc.

## **Audio and Video Equipment Technicians**

Set up and operate audio and video equipment, including microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards, and related electronic equipment for concerts, sports events, meeting and conventions, presentations, and news conferences. They may also set up and operate associated spotlights and other custom lighting systems. Electronic home entertainment equipment installers and repairers, also called service technicians, install and repair a variety of equipment, including televisions and radios, stereo components, video and audio disc players, video cameras, and video recorders. They also install and repair intercom equipment, stereo and home theater systems, which consist of large-screen televisions and sophisticated surround-sound audio components.

## **Structured Cabling Technician**

Installation and configuration of network and phone systems. Typical tasks include: cabling infrastructure, patch panels, equipment racks, PBX, VOIP systems, installs line cards, network cards, circuit packs, and related hardware for customer move, add and change activity, changes in network trunking, changes in switch configuration, PBX upgrades, and other system install activity typically performed in telecom rooms which house PBX cabinetry, network interface points, MDF's, and the like; performs work on MDF's and network interface locations found in switch rooms; installs or oversees the installation of various customer premise station equipment and associated ancillary hardware; performs all telecom room related work associated with customer premise move, add and change activity; configures switch or makes recommendations for switch configurations to ensure optimum utilization of switch and network circuitry as well as telecom room space and facilities; performs switch translations and other engineering changes for network or switch upgrades.



# Tuition & Program Information

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## **Alarm and Camera Technician**

Fit and repair security systems in homes and businesses. An installer may perform the following tasks:

- Inspect sites and talk to clients to determine security requirements
- Provide estimates to clients for installation of equipment
- Feed cable through roof spaces and cavity walls, and
- position and terminate cables, wires and strapping
- Assemble, erect, position and label all items of equipment
- Test equipment and diagnose faults
- Make connections to telephone lines for alarm monitoring
- Maintain and adhere to operational procedures and
- complete appropriate documentation
- Be responsible for assigned tools, plan and test equipment
- Develop and keep good relations with clients

Security system installers must develop knowledge of the range of security equipment, including electronic and electrical surveillance systems and closed-circuit TV, as well as knowledge of simple electronic principles and terminating techniques. They must also understand the principles of operation and characteristics of controllers, detectors, relay, bells, sirens, screamers, and telephone circuits.

Security systems installers work mainly indoors and sometimes have to work in confined roof spaces. They have considerable contact with customers in businesses and private homes.

Security, Surveillance, & Alarm System Technician may serve in areas such as Cyber security and like career options such positions often require 3rd party certification e.g. CompTIA, A+/Security. With experience, it's possible to become the manager of a team of security system installers, become self-employed, or specializes as a Security Advisor.

**Satellite Installers** are responsible for the installation, testing and repair of Digital Broadcast Satellites (DBS) and related equipment in residential settings. Other duties include teaching customers how to use their equipment as well as ensuring proper documentation of all customer interactions. In a typical workday, a Satellite Installer may do the following:

- Install, upgrade, service and repair satellite products
- Handle customer questions and develop solutions
- Complete work orders, retrieving proper signatures for accurate billing
- Ensure all installation work is done according to quality standards
- Assist with work overflow
- Adhere to safety policies and procedures

# Cable Television Technician

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## Educational Objective

This program will prepare students for an entry-level position as CATV installers, HSD installer, telephony technician, and cable-splicing technician. Graduates will be able to repair, test, and maintain CATV systems. Graduates will receive a Certificate of Completion and a Pole Climbing Theory and Ladder Safety Certificate. Additionally, graduates may sit for the SCTE certification exam and receive SCTE certification from an independent third-party if they attain a score of 76% or higher.

## **PROGRAM OUTLINE**

<b>Module</b>	<b>Course Title</b>
1	CATV Networks
2	Customer Relations
3	Safety
4	Tools & Materials
5	Cable & Connectors
6	Aerial Drop Installations
7	Underground Drop Installations
8	Exterior & Interior Wiring
9	Bonding & Grounding
10	Terminal Devices
11	Connecting Customer Equipment
12	Prewires
13	Multiple Dwelling Units
14	Digital Signals & the Return Path
15	Cable Modems
16	VOIP
17	Troubleshooting & Repair

# Cable Television Technician

## Course Topics

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### **Module 1 CATV Networks**

History  
The Television Signal  
Basic Cable System Operation  
The Broadband Network  
Architecture

### **Module 2 Customer Relations**

Professional Conduct  
Scope, Conclusion  
Chapter 2 Review  
Applications

### **Module 3 Safety**

The Occupational Safety and Health  
Administration  
Vehicle Safety  
Personal Protective Equipment (PPE)  
Utility Poles & Clearances  
Chapter 3 Review  
Applications

### **Test for Module 1, 2 & 3**

### **Module 4 Tools & Materials**

Tools  
Materials  
Conclusion  
Chapter 4 Review  
Applications

### **Module 5 Cable & Connectors**

Drop Cable Characteristics  
Drop Cable Electrical Characteristics  
Connectors  
Chapter 5 Review / Applications

### **Test for Module 4 & 5**

### **Module 6 Aerial Drop Installations**

Installing an Aerial Drop  
Other Types of Installation Work  
Chapter 6 Review / Applications

### **Test for Module 6**

### **Module 7 Underground Drop Installations**

Completing the Drop  
Burying Methods /Obstructions  
Chapter 7 Review /Applications

### **Test for Module 7**

### **Module 8 Exterior & Interior Wiring**

Basic Building Construction  
Basics of Exterior Routing  
Drilling for Cable Entry  
Basics of Interior Routing  
Routing Cable Lines  
Chapter 8 Review / Applications

### **Test for Module 8**

### **Module 9 Bonding and Grounding**

Ground versus Bond  
Bonding and Grounding Codes  
National Electric Code (NEC)  
National Electrical and Safety Code (NESC)  
The Building Grounding Electrode System  
Methods and Priorities  
Chapter 9 Review

Applications

### **Test for Module 9**

### **Module 10 Terminal Devices**

Tuners and Receivers  
Converters  
Televisions  
VCR's, VCPs and HDTV  
Other Terminal Devices  
Chapter 10 Review

Applications

### **Test for Module 10**

### **Mid-Term Test**

### **Module 11 Connecting Customer Equip**

Technology and Terminology / The Installation /  
Making the Connection  
CPE Preliminaries / RF Connections /  
Converter/VCR/TV  
Baseband Connections / Combination RF and  
Baseband Connections  
Surround Sound System  
Chapter 11 Review Applications

# Cable Television Technician

## Course Topics

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### **Module 12 Prewires**

General Considerations  
Types of Prewires  
Prewiring Single-Family Homes  
Prewiring Multiple-Dwelling Units  
Damaged Cable Problems  
Chapter 12 Review  
Applications  
**Test for Module 11 & 12**

### **Module 13 Multiple Dwelling Units**

General Guidelines  
Wiring the MDU  
Wiring Concepts  
Reconnection of MDU's  
Chapter 13 Review  
Applications

### **Module 14 Digital Signals & The Return Path**

Analog Transmissions  
Digital Transmissions  
Digital Services  
Troubleshooting  
Chapter 11 Review  
Analog and Digital Signals  
**Test for Module 13 & 14**

### **Module 15 Cable Modems**

DOCSIS  
Implementing High-Speed Data  
Cable Modem Installation  
Chapter 16 Review  
Applications  
Introducing Cable Modems  
Understanding Broadband Cable Modems  
**Test for Module 15 & 16**

### **Module 16 VOIP**

Integrated Two-Way Services  
VOIP Basics  
Safety Precautions  
Tools & Equipment  
VOIP Installations  
Other Installation Issues  
Chapter 16 Review  
Applications

### **Module 17 Trouble Shooting & Repair**

Basic Signal Measurements  
Measuring and Calculating Signal Levels  
Identifying Common Cable Problems  
Test Equipment Care & Use  
Troubleshooting the House Drop  
Attenuation Specifications  
Module 17 Review  
**Test for Module 17**

# Cable Television and Satellite Technician

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## Educational Objective

This program prepares students for an entry-level position as CATV installers, Digital Satellite System (DSS) installers, and cable-splicing technicians. Graduates will be able to conduct high speed data, test, and maintenance of CATV systems. Graduates will receive a Certificate of Completion and a Pole Climbing Theory and Ladder Safety Certificate. Additionally, graduates may sit for the SCTE certification exam and receive SCTE certification from an independent third-party if they attain a score of 76% or higher.

## **PROGRAM OUTLINE – BROADBAND CATV**

<b>Module</b>	<b>Course Title</b>
1	CATV Networks
2	Customer Relations
3	Safety
4	Tools & Materials
5	Cable & Connectors
6	Aerial Drop Installations
7	Underground Drop Installations
8	Exterior & Interior Wiring
9	Bonding & Grounding
10	Terminal Devices
11	Connecting Customer Equipment
12	Prewires
13	Multiple Dwelling Units
14	Digital Signals & the Return Path
15	Cable Modems
16	VOIP
17	Troubleshooting & Repair

# Cable Television and Satellite Technician

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## PROGRAM OUTLINE - SATELLITE

1	Introduction to Satellite Television
2	Basic System Technology
3	Coaxial Cable and Connectors
4	Site Survey
5	Antenna Installation
6	Grounding and Surge Protection
7	Primary Hookup and System Integration I
8	Primary Hookup and System Integration II
9	High Definition
10	Off Air Antennas
11	Test Equipment and Troubleshooting
12	Customer Education
13	Multiple Satellite Antenna Installation

# Cable Television and Satellite Technician

## Course Topics

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### **Module 1 CATV Networks**

History  
The Television Signal  
Basic Cable System Operation  
The Broadband Network  
Architecture

### **Module 2 Customer Relations**

Professional Conduct  
Scope, Conclusion  
Chapter 2 Review  
Applications

### **Module 3 Safety**

The Occupational Safety and Health  
Administration  
Vehicle Safety  
Personal Protective Equipment (PPE)  
Utility Poles & Clearances  
Chapter 3 Review  
Applications

**Test for Module 1, 2 & 3**

### **Module 4 Tools & Materials**

Tools  
Materials  
Conclusion  
Chapter 4 Review  
Applications

### **Module 5 Cable & Connectors**

Drop Cable Characteristics  
Drop Cable Electrical Characteristics  
Connectors  
Chapter 5 Review / Applications

**Test for Module 4 & 5**

### **Module 6 Aerial Drop Installations**

Installing an Aerial Drop  
Other Types of Installation Work  
Chapter 6 Review / Applications

**Test for Module 6**

### **Module 7 Underground Drop Installations**

Completing the Drop  
Burying Methods /Obstructions  
Chapter 7 Review /Applications

**Test for Module 7**

### **Module 8 Exterior & Interior Wiring**

Basic Building Construction  
Basics of Exterior Routing  
Drilling for Cable Entry  
Basics of Interior Routing  
Routing Cable Lines  
Chapter 8 Review / Applications

**Test for Module 8**

### **Module 9 Bonding and Grounding**

Ground versus Bond  
Bonding and Grounding Codes  
National Electric Code (NEC)  
National Electrical and Safety Code (NESC)  
The Building Grounding Electrode System  
Methods and Priorities  
Chapter 9 Review

Applications

**Test for Module 9**

### **Module 10 Terminal Devices**

Tuners and Receivers  
Converters  
Televisions  
VCR's, VCPs and HDTV  
Other Terminal Devices  
Chapter 10 Review

Applications

**Test for Module 10**

**Mid-Term Test**

### **Module 11 Connecting Customer Equip**

Technology and Terminology / The Installation /  
Making the Connection  
CPE Preliminaries / RF Connections /  
Converter/VCR/TV  
Baseband Connections / Combination RF and  
Baseband Connections  
Surround Sound System  
Chapter 11 Review Applications

# Cable Television and Satellite Technician

## Course Topics

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### **Module 12 Prewires**

General Considerations

Types of Prewires

Prewiring Single-Family Homes

Prewiring Multiple-Dwelling Units

Damaged Cable Problems

Chapter 12 Review

Applications

**Test for Module 11 & 12**

Basic Signal Measurements

Measuring and Calculating Signal Levels

Identifying Common Cable Problems

Test Equipment Care & Use

Troubleshooting the House Drop

Attenuation Specifications

Module 17 Review

**Test for Module 17**

### **Module 13 Multiple Dwelling Units**

General Guidelines

Wiring the MDU

Wiring Concepts

Reconnection of MDU's

Chapter 13 Review

Applications

### **Module 14 Digital Signals & The Return Path**

Analog Transmissions

Digital Transmissions

Digital Services

Troubleshooting

Chapter 11 Review

Analog and Digital Signals

**Test for Module 13 & 14**

### **Module 15 Cable Modems**

DOCSIS

Implementing High-Speed Data

Cable Modem Installation

Chapter 16 Review

Applications

Introducing Cable Modems

Understanding Broadband Cable Modems

**Test for Module 15 & 16**

### **Module 16 VOIP**

Integrated Two-Way Services

VOIP Basics

Safety Precautions

Tools & Equipment

VOIP Installations

Other Installation Issues

Chapter 16 Review Applications

### **Module 1 Introduction to Satellite Television**

### **Module 17 Trouble Shooting & Repair**



# Cable Television and Satellite Technician

## Course Topics

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Course Objectives  
Regulatory Affairs  
OTARD  
Installer Responsibilities  
Installers Code of Ethics  
Signal Piracy  
Module 1 Review

### **Module 2 Basic System Technology**

DBS Breakdown  
Providers  
Satellites  
Transponders  
Customer Premise Equipment  
LNB's  
Module 2 Review

### **Module 3 Coaxial Cable and Connectors**

Connectors  
Coaxial Cable  
Cable Properties  
Cable Preparation  
Module 3 Review

### **Module 4 Site Survey**

Determining AZ/EL  
Magnetic Azimuth  
Clear Line of Site  
Customer Involvement  
Module 4 Review

### **Module 5 Antenna Installation**

Dish Mounting Recommended Practices  
Safety  
Installation Aspects  
Customer Relations  
Mounting Choices  
Coaxial Cable  
Signal Acquisition  
IRD Connection  
Module 5 Review

### **Module 6 Grounding and Surge Protection**

Grounding/Bonding Materials  
Typical Grounding  
Copper Clad Steel as Bond  
Cable Routing Techniques  
Ground Block  
Module 26 Review

### **Module 7 Primary Hookup & System Integration I**

Objectives  
Connection  
System Integration  
Dual Receiver/Dual TV  
Single IRD/Off-Air  
Basic VCR Connection  
VCR Connection Options  
Other Connections  
Module 7 Review

### **Module 8 Primary Hookup & System Integration II**

Home Theater  
Module 8 Review

### **Module 9 High Definition**

Objectives  
What is High Definition (HD)  
Why HD is Better  
HD Broadcasts  
High Definition IRD  
Module 9 Review

### **Module 10 Off-Air Antennas**

Objectives  
Directional/Bi-Directional/Omni Directional  
Antenna Components  
Off-Air Bands  
Off-Air Broadcasts  
Antenna Web  
Sample Antenna Web Results  
Antennas  
Antennas Installation  
Diplexers  
Off-Air Antennas  
Module 10 Review

### **Module 11 Test Equipment & Troubleshooting**

# Cable Television and Satellite Technician

## Course Topics

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Objectives

Multi-Meter

Troubleshooting Basics

Troubleshooting

Module 11 Review

### **Module 12 Customer Education**

Objectives

Customer Education

Module 12 Review

### **Module 13 Multiple Satellite Antenna Installation**

Objectives

Clear Line-Of-Sight Mast Leveling

Multiple Satellite

Typical Elevation Lock

Signal Strength Indications

Dual Meters

Switching Between LNB's

Multi-switches

Dish Pro Plus

Medium Power KU Satellites

Dish Solutions

Module 13 Review

# Advanced Telecommunications Technician 1

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## Educational Objective

This program prepares students for various positions in all core aspects of the field of communications technology and installation. Students will learn fiber optics, twisted pair copper cabling, and cable television and satellite installation, as well as outside plant construction and FTTx splicing, testing, and trouble-shooting processes. Graduates will receive a Certificate of Completion, Satellite Certification, and a Pole Climbing Theory and Ladder Safety Certificate. Additionally, graduates may sit for the SCTE certification exam and receive SCTE certification from an independent third-party if they attain a score of 76% or higher, as well as Fiber Optic (FOA) certification.

## **PROGRAM OUTLINE – BROADBAND CATV**

<b>Module</b>	<b>Course Title</b>
1	CATV Networks
2	Customer Relations
3	Safety
4	Tools & Materials
5	Cable & Connectors
6	Aerial Drop Installations
7	Underground Drop Installations
8	Exterior & Interior Wiring
9	Bonding & Grounding
10	Terminal Devices
11	Connecting Customer Equipment
12	Prewires
13	Multiple Dwelling Units
14	Digital Signals & the Return Path
15	Cable Modems
16	VOIP
17	Troubleshooting & Repair

# Advanced Telecommunications Technician 1

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## PROGRAM OUTLINE – BROADBAND CATV & SATELLITE

1	Introduction to Satellite Television
2	Basic System Technology
3	Coaxial Cable and Connectors
4	Site Survey
5	Antenna Installation
6	Grounding and Surge Protection
7	Primary Hookup and System Integration I
8	Primary Hookup and System Integration II
9	High Definition
10	Off Air Antennas
11	Test Equipment and Troubleshooting
12	Customer Education
13	Multiple Satellite Antenna Installation

## PROGRAM OUTLINE – FIBER

Module	Course Title
1	Introduction to Networks
2	A Light Overview
3	Fiber
4	Cable
5	Connectors
6	Splices
7	Passive Devices
8	Optoelectronics
9	Hardware
10	Cable Installation Principles
11	Connector Installation Principles
12	Splicing Principles
13	Testing Principles
14	Certification Principles
15	Cable Preparation
16	Connector Installation: Epoxy
17	Connector Installation: Quick Cure Adhesive

# Advanced Telecommunications Technician 1

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18	Connector Installation: Hot Melt Adhesive
19	Connector Installation: Cleave and Crimp #1
20	Connector Installation: Cleave and Crimp #2
21	Connector Inspection
22	Mid Span Splicing
23	Pig Tail Splicing
24	Ribbon Splicing
25	Appendices
26	Copper UTB Cabling

## **PROGRAM OUTLINE – TELEPHONE SWITCH**

1	UTP/STP Cabling and Fundamentals
2	Copper Cabling Installation

# Advanced Telecommunications Technician 1

## Course Topics

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### **Module 1 CATV Networks**

History  
The Television Signal  
Basic Cable System Operation  
The Broadband Network  
Architecture

### **Module 2 Customer Relations**

Professional Conduct  
Scope, Conclusion  
Chapter 2 Review  
Applications

### **Module 3 Safety**

The Occupational Safety and Health  
Administration  
Vehicle Safety  
Personal Protective Equipment (PPE)  
Utility Poles & Clearances  
Chapter 3 Review  
Applications

### **Test for Module 1, 2 & 3**

### **Module 4 Tools & Materials**

Tools  
Materials  
Conclusion  
Chapter 4 Review  
Applications

### **Module 5 Cable & Connectors**

Drop Cable Characteristics  
Drop Cable Electrical Characteristics  
Connectors  
Chapter 5 Review / Applications  
**Test for Module 4 & 5**

### **Module 6 Aerial Drop Installations**

Installing an Aerial Drop  
Other Types of Installation Work  
Chapter 6 Review / Applications  
**Test for Module 6**

### **Module 7 Underground Drop Installations**

Completing the Drop  
Burying Methods /Obstructions

Chapter 7 Review /Applications

### **Test for Module 7**

### **Module 8 Exterior & Interior Wiring**

Basic Building Construction  
Basics of Exterior Routing  
Drilling for Cable Entry  
Basics of Interior Routing  
Routing Cable Lines  
Chapter 8 Review / Applications

### **Test for Module 8**

### **Module 9 Bonding and Grounding**

Ground versus Bond  
Bonding and Grounding Codes  
National Electric Code (NEC)  
National Electrical and Safety Code (NESC)  
The Building Grounding Electrode System  
Methods and Priorities  
Chapter 9 Review  
Applications

### **Test for Module 9**

### **Module 10 Terminal Devices**

Tuners and Receivers  
Converters  
Televisions  
VCR's, VCPs and HDTV  
Other Terminal Devices  
Chapter 10 Review  
Applications

### **Test for Module 10 - Mid-Term Test**

### **Module 11 Connecting Customer Equip**

Technology and Terminology / The Installation /  
Making the Connection  
CPE Preliminaries / RF Connections /  
Converter/VCR/TV  
Baseband Connections / Combination RF and  
Baseband Connections  
Surround Sound System  
Chapter 11 Review Applications

### **Module 12 Prewires**

General Considerations  
Types of Prewires  
Prewiring Single-Family Homes  
Prewiring Multiple-Dwelling Units

# Advanced Telecommunications Technician 1

## Course Topics

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Damaged Cable Problems  
Chapter 12 Review Applications  
**Test for Module 11 & 12**

### **Module 13 Multiple Dwelling Units**

General Guidelines  
Wiring the MDU  
Wiring Concepts  
Reconnection of MDU's  
Chapter 13 Review  
Applications

### **Module 14 Digital Signals & The Return Path**

Analog Transmissions  
Digital Transmissions  
Digital Services  
Troubleshooting  
Chapter 11 Review  
Analog and Digital Signals  
**Test for Module 13 & 14**

### **Module 15 Cable Modems**

DOCSIS  
Implementing High-Speed Data  
Cable Modem Installation  
Chapter 16 Review  
Applications  
Introducing Cable Modems  
Understanding Broadband Cable Modems  
**Test for Module 15 & 16**

### **Module 16 VOIP**

Integrated Two-Way Services  
VOIP Basics  
Safety Precautions  
Tools & Equipment  
VOIP Installations  
Other Installation Issues  
Chapter 16 Review Applications

### **Module 17 Trouble Shooting & Repair**

Basic Signal Measurements  
Measuring and Calculating Signal Levels  
Identifying Common Cable Problems  
Test Equipment Care & Use  
Troubleshooting the House Drop  
Attenuation Specifications

Module 17 Review  
**Test for Module 17**

### **Module 1 Introduction to Satellite Television**

Course Objectives  
Regulatory Affairs  
OTARD  
Installer Responsibilities  
Installers Code of Ethics  
Signal Piracy  
Module 1 Review

### **Module 2 Basic System Technology**

DBS Breakdown  
Providers  
Satellites  
Transponders  
Customer Premise Equipment  
LNB's  
Module 2 Review

### **Module 3 Coaxial Cable and Connectors**

Connectors  
Coaxial Cable  
Cable Properties  
Cable Preparation  
Module 3 Review

### **Module 4 Site Survey**

Determining AZ/EL  
Magnetic Azimuth  
Clear Line of Site  
Customer Involvement  
Module 4 Review

### **Module 5 Antenna Installation**

Dish Mounting Recommended Practices  
Safety  
Installation Aspects  
Customer Relations  
Mounting Choices  
Coaxial Cable  
Signal Acquisition  
IRD Connection  
Module 5 Review

# Advanced Telecommunications Technician 1

## Course Topics

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### **Module 6 Grounding and Surge Protection**

Grounding/Bonding Materials  
Typical Grounding  
Copper Clad Steel as Bond  
Cable Routing Techniques  
Ground Block  
Module 26 Review

### **Module 7 Primary Hookup & System Integration I**

Objectives  
Connection  
System Integration  
Dual Receiver/Dual TV  
Single IRD/Off-Air  
Basic VCR Connection  
VCR Connection Options  
Other Connections  
Module 7 Review

### **Module 8 Primary Hookup & System Integration II**

Home Theater  
Module 8 Review

### **Module 9 High Definition**

Objectives  
What is High Definition (HD)  
Why HD is Better  
HD Broadcasts  
High Definition IRD  
Module 9 Review

### **Module 10 Off-Air Antennas**

Objectives  
Directional/Bi-Directional/Omni Directional  
Antenna Components  
Off-Air Bands  
Off-Air Broadcasts  
Antenna Web  
Sample Antenna Web Results  
Antennas  
Antennas Installation  
Diplexers  
Off-Air Antennas  
Module 10 Review

### **Module 11 Test Equipment & Troubleshooting**

Objectives  
Multi-Meter  
Troubleshooting Basics  
Troubleshooting  
Module 11 Review

### **Module 12 Customer Education**

Objectives  
Customer Education  
Module 12 Review

### **Module 13 Multiple Satellite Antenna Installation**

Objectives  
Clear Line-Of-Sight Mast Leveling  
Multiple Satellite  
Typical Elevation Lock  
Signal Strength Indications  
Dual Meters  
Switching Between LNB's  
Multi-switches  
Dish Pro Plus  
Medium Power KU Satellites  
Dish Solutions  
Module 13 Review

### **Module 1 Introduction to Networks**

Network Function  
Transmission Types  
Topologies  
Components  
The Fiber Network  
Review Questions

### **Module 2 A Light Overview**

Light Language  
Behavior  
Light Properties  
Review Questions

### **Module 3 Fiber**

Structure  
Types and Characters  
Performance



# Advanced Telecommunications Technician 1

## Course Topics

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Review Questions

### **Module 4 Cable**

Structure  
Types  
NEC Compliance  
Dielectric Design  
Installation Characteristics  
Standards  
Review Questions

### **Module 5 Connectors**

Function  
Structure  
Performance  
Connector Features  
Types  
Installation Methods  
Review Questions

### **Module 6 Splices**

Locations  
Types  
Structure  
Performance  
Review Questions

### **Module 7 Passive Devices**

Two Installation Concerns  
Couplers  
Splitters  
Wavelength Division Demultiplexer  
Review Questions

### **Module 8 Optoelectronics**

Installation Concern  
Transmitter Types  
Performance Characteristics  
Summary  
Review Questions

### **Module 9 Hardware**

Functions  
Types  
Summary  
Review Questions

### **Module 10 Cable Installation Principles**

Introduction  
Environmental Limits  
Installation Limits  
Cable Placement  
Planning and Management Issues  
Safety Issues  
End Preparation  
Summary  
Review Questions

### **Module 11 Connector Installation Principles**

Introduction  
Cable End Preparation  
Adhesives  
End Finishing  
Cleave and Crimp Installation  
Summary  
Review Questions

### **Module 12 Splicing Principles**

Introduction; Cable-  
Enclosure Compatibility  
Attachment Locations; Attachment  
Tray Preparation; Fiber End Preparation  
Cleaving; Fusion Splicing;  
Mechanical Splicing

Fiber Placement; Tray Placement  
Test All Splices; Enclosure Closure  
Summary; Review Questions

### **Module 13 Testing Principles**

Introduction  
Insertion Loss Testing  
Optical Domain Reflectometry  
Reflectance Testing  
Protocol Testing  
Other Equipment  
Standards  
Review Questions

### **Module 14 Certification Principles**

Introduction  
Required Information

# Advanced Telecommunications Technician 1

## Course Topics

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Insertion Loss Calculations  
Develop of A Strategy  
Certification  
An Alternative Strategy  
Summary  
Review Questions

### **Module 15 Cable Preparation**

Introduction; Tools and Supplies;  
Fiber Handling  
Loose Tube End Preparation for Pulling; Tight  
Tube End Preparation for Pulling  
Loose Tube End Preparation for Termination;  
Tight End Preparation for Termination  
Open Page Summary

### **Module 16 Connector Installation: Epoxy**

Introduction  
Materials and Supplies  
Procedure  
Troubleshooting  
Summary

### **Module 17 Connector INSTALLATIONS: Quick Cure Adhesive**

Introduction; Materials and Supplies  
Procedure; Single Mode Polishing  
Final Cleaning; Inspect Connector  
White Light Test; Final Assembly  
Troubleshooting; Summary

### **Module 18 Connector Installation: Hot Melt Adhesive**

Introduction; Materials and Supplies  
Procedure; Final Cleaning  
Inspect Connector; White Light Test  
Salvage; Trouble Shooting  
One Page Summary

### **Module 19 Connector Installation: Cleave and Crimp # 1**

Introduction, Tools and Supplies  
Procedure, Troubleshooting, Summary

### **Module 20 Connector Installation: Cleave and Crimp # 2**

Introduction  
Tools and Supplies Required  
SC Procedure  
ST Compatible Procedure  
Test Loss  
Troubleshooting / Summary

### **Module 21 Connector Inspection**

Applicability  
Equipment Required  
Procedure  
Trouble Shooting

### **Module 22 Mid Span Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR Set Up  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Tray Attachment; Enclosure Finishing  
Trouble Shooting; Summary

### **Module 23 Pig Tail Splicing**

Introduction; Tools and Supplies  
End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Enclosure Tray Attachment; Enclosure Finishing  
Troubleshooting; Summary

### **Module 24 Ribbon Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Enclosure Preparation; Cable Attachment  
Furcation Tube Attachment; Fiber Length  
Verification  
OTDR Set Up; Fusion Splicing  
Process Completion; Troubleshooting  
Summary

# Advanced Telecommunications Technician 1

## Course Topics

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### **Module 25 Appendices**

Indices of Refraction,  
Glossary / Acronyms  
Chapter 12 Answers, Chapter 14 Answers

### **Module 26 Copper UTP Cabling**

Introduction to UTP/STP Cabling

### **Module 1 UTP/STP Cabling and Fundamentals**

Introduction to UTP/STP Cabling,  
Cabling fundamentals and installation  
Understands PBX fundamentals, Identifying  
switch types, Knowledge of software, Quality /  
Speed of installations, Operation of Test sets  
VOIP wiring, VOIP, Customer Service Skills  
Ladder safety, Tool safety.  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Operation of cable certification equipment  
Specifications and Standards - ANSI/TIA/EIA  
Copper Color Codes, UTP Cable Design  
Cable Applications and Categories  
UTP Cable Installation Techniques  
Wiring 66/110 Blocks, Wall Plates;  
Patch Panels; Jack Orientation,  
Wiring Schemes  
Connectors; RJ 11-45

### **Module 2 Copper Cabling Installation**

Cabling fundamentals and installation  
Cable color codes  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Terminate RJ-45 connectors  
Terminate 66/110 style cross-connects  
Operation of wire-map test tools  
Operation of cable certification equipment

# Advanced Telecommunications Technician 2

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## Educational Objective

This program prepares students for various positions in all core aspects of the field of communications technology and installation, as well as the Commercial and Residential Home Audio/Video and Automation industry. Students will learn fiber optics, twisted pair copper cabling, and cable television, satellite, and home theater installation, as well as outside plant construction and FTTx splicing, testing, and trouble-shooting processes. Graduates will receive a Certificate of Completion, a Pole Climbing Theory and Ladder Safety Certificate, and SCTE certification upon successful completion of the SCTE certification exam and score of 76% or higher, as well as Fiber Optic (FOA) certification. Graduates will receive a Certificate of Completion, Satellite Certification, and a Pole Climbing Theory and Ladder Safety Certificate. Additionally, graduates may sit for the SCTE certification exam and receive SCTE certification from an independent third-party if they attain a score of 76% or higher, as well as Fiber Optic (FOA) certification.

## **PROGRAM OUTLINE – BROADBAND CATV**

<b>Module</b>	<b>Course Title</b>
1	CATV Networks
2	Customer Relations
3	Safety
4	Tools & Materials
5	Cable & Connectors
6	Aerial Drop Installations
7	Underground Drop Installations
8	Exterior & Interior Wiring
9	Bonding & Grounding
10	Terminal Devices
11	Connecting Customer Equipment
12	Prewires
13	Multiple Dwelling Units
14	Digital Signals & the Return Path
15	Cable Modems
16	VOIP
17	Troubleshooting & Repair

# Advanced Telecommunications Technician 2

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## PROGRAM OUTLINE – SATELLITE

1	Introduction to Satellite Television
2	Basic System Technology
3	Coaxial Cable and Connectors
4	Site Survey
5	Antenna Installation
6	Grounding and Surge Protection
7	Primary Hookup and System Integration I
8	Primary Hookup and System Integration II
9	High Definition
10	Off Air Antennas
11	Test Equipment and Troubleshooting
12	Customer Education
13	Multiple Satellite Antenna Installation

## PROGRAM OUTLINE – FIBER

Module	Course Title
1	Introduction to Networks
2	A Light Overview
3	Fiber
4	Cable
5	Connectors
6	Splices
7	Passive Devices
8	Optoelectronics
9	Hardware
10	Cable Installation Principles
11	Connector Installation Principles
12	Splicing Principles
13	Testing Principles
14	Certification Principles
15	Cable Preparation

# Advanced Telecommunications Technician 2

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16	Connector Installation: Epoxy
17	Connector Installation: Quick Cure Adhesive

18	Connector Installation: Hot Melt Adhesive
19	Connector Installation: Cleave and Crimp #1
20	Connector Installation: Cleave and Crimp #2
21	Connector Inspection
22	Mid Span Splicing
23	Pig Tail Splicing
24	Ribbon Splicing
25	Appendices
26	Copper UTB Cabling

## PROGRAM OUTLINE – TELEPHONE SWITCH

1	UTP/STP Cabling and Fundamentals
2	Copper Cabling Installation

## PROGRAM OUTLINE – HOME AUDIO AND VIDEO

Module	Course Title
1	Introduction Home Audio & Video Technician
2	Home Theater
3	Customer Relations
4	Safety
5	Industry Standards
6	Home Theater – Video Displays
7	Home Theater – Audio
8	Home Theater – Installation
9-11	Home Theater – In Depth HDTV

# Advanced Telecommunications Technician 2

## Course Topics

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### **Module 1 CATV Networks**

History

The Television Signal

Basic Cable System Operation

The Broadband Network

Architecture

### **Module 2 Customer Relations**

Professional Conduct

Scope, Conclusion

Chapter 2 Review

Applications

### **Module 3 Safety**

The Occupational Safety and Health

Administration

Vehicle Safety

Personal Protective Equipment (PPE)

Utility Poles & Clearances

Chapter 3 Review

Applications

**Test for Module 1, 2 & 3**

### **Module 4 Tools & Materials**

Tools

Materials

Conclusion

Chapter 4 Review

Applications

### **Module 5 Cable & Connectors**

Drop Cable Characteristics

Drop Cable Electrical Characteristics

Connectors

Chapter 5 Review / Applications

**Test for Module 4 & 5**

### **Module 6 Aerial Drop Installations**

Installing an Aerial Drop

Other Types of Installation Work

Chapter 6 Review / Applications

**Test for Module 6**

### **Module 7 Underground Drop Installations**

Completing the Drop

Burying Methods /Obstructions

Chapter 7 Review /Applications

**Test for Module 7**

### **Module 8 Exterior & Interior Wiring**

Basic Building Construction

Basics of Exterior Routing

Drilling for Cable Entry

Basics of Interior Routing

Routing Cable Lines

Chapter 8 Review / Applications

**Test for Module 8**

### **Module 9 Bonding and Grounding**

Ground versus Bond

Bonding and Grounding Codes

National Electric Code (NEC)

National Electrical and Safety Code (NESC)

The Building Grounding Electrode System

Methods and Priorities

Chapter 9 Review

Applications

**Test for Module 9**

### **Module 10 Terminal Devices**

Tuners and Receivers

Converters

Televisions

VCR's, VCPs and HDTV

Other Terminal Devices

Chapter 10 Review

Applications

**Test for Module 10 - Mid-Term Test**

### **Module 11 Connecting Customer Equip**

Technology and Terminology / The Installation / Making the Connection

CPE Preliminaries / RF Connections /

Converter/VCR/TV

Baseband Connections / Combination RF and

Baseband Connections

Surround Sound System

Chapter 11 Review Applications

### **Module 12 Prewires**

General Considerations

Types of Prewires

Prewiring Single-Family Homes

Prewiring Multiple-Dwelling Units

# Advanced Telecommunications Technician 2

## Course Topics

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Damaged Cable Problems  
Chapter 12 Review Applications  
**Test for Module 11 & 12**

### **Module 13 Multiple Dwelling Units**

General Guidelines  
Wiring the MDU  
Wiring Concepts  
Reconnection of MDU's  
Chapter 13 Review  
Applications

### **Module 14 Digital Signals & The Return Path**

Analog Transmissions  
Digital Transmissions  
Digital Services  
Troubleshooting  
Chapter 11 Review  
Analog and Digital Signals  
**Test for Module 13 & 14**

### **Module 15 Cable Modems**

DOCSIS  
Implementing High-Speed Data  
Cable Modem Installation  
Chapter 16 Review  
Applications  
Introducing Cable Modems  
Understanding Broadband Cable Modems  
**Test for Module 15 & 16**

### **Module 16 VOIP**

Integrated Two-Way Services  
VOIP Basics  
Safety Precautions  
Tools & Equipment  
VOIP Installations  
Other Installation Issues  
Chapter 16 Review Applications

### **Module 17 Trouble Shooting & Repair**

Basic Signal Measurements  
Measuring and Calculating Signal Levels  
Identifying Common Cable Problems  
Test Equipment Care & Use  
Troubleshooting the House Drop  
Attenuation Specifications

Module 17 Review  
**Test for Module 17**

### **Module 1 Introduction to Satellite Television**

Course Objectives  
Regulatory Affairs  
OTARD  
Installer Responsibilities  
Installers Code of Ethics  
Signal Piracy  
Module 1 Review

### **Module 2 Basic System Technology**

DBS Breakdown  
Providers  
Satellites  
Transponders  
Customer Premise Equipment  
LNB's  
Module 2 Review

### **Module 3 Coaxial Cable and Connectors**

Connectors  
Coaxial Cable  
Cable Properties  
Cable Preparation  
Module 3 Review

### **Module 4 Site Survey**

Determining AZ/EL  
Magnetic Azimuth  
Clear Line of Site  
Customer Involvement  
Module 4 Review

### **Module 5 Antenna Installation**

Dish Mounting Recommended Practices  
Safety  
Installation Aspects  
Customer Relations  
Mounting Choices  
Coaxial Cable  
Signal Acquisition  
IRD Connection  
Module 5 Review

### **Module 6 Grounding and Surge Protection**

Grounding/Bonding Materials



# Advanced Telecommunications Technician 2

## Course Topics

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Typical Grounding  
Copper Clad Steel as Bond  
Cable Routing Techniques  
Ground Block  
Module 26 Review

### **Module 7 Primary Hookup & System Integration I**

Objectives  
Connection  
System Integration  
Dual Receiver/Dual TV  
Single IRD/Off-Air  
Basic VCR Connection  
VCR Connection Options  
Other Connections  
Module 7 Review

### **Module 8 Primary Hookup & System Integration II**

Home Theater  
Module 8 Review

### **Module 9 High Definition**

Objectives  
What is High Definition (HD)  
Why HD is Better  
HD Broadcasts  
High Definition IRD  
Module 9 Review

### **Module 10 Off-Air Antennas**

Objectives  
Directional/Bi-Directional/Omni Directional  
Antenna Components  
Off-Air Bands  
Off-Air Broadcasts  
Antenna Web  
Sample Antenna Web Results  
Antennas  
Antennas Installation  
Diplexers  
Off-Air Antennas  
Module 10 Review

### **Module 11 Test Equipment & Troubleshooting**

Objectives  
Multi-Meter

Troubleshooting Basics  
Troubleshooting  
Module 11 Review

### **Module 12 Customer Education**

Objectives  
Customer Education  
Module 12 Review

### **Module 13 Multiple Satellite Antenna Installation**

Objectives  
Clear Line-Of-Sight Mast Leveling  
Multiple Satellite  
Typical Elevation Lock  
Signal Strength Indications  
Dual Meters  
Switching Between LNB's  
Multi-switches  
Dish Pro Plus  
Medium Power KU Satellites  
Dish Solutions  
Module 13 Review

### **Module 1 Introduction to Networks**

Network Function  
Transmission Types  
Topologies  
Components  
The Fiber Network  
Review Questions

### **Module 2 A Light Overview**

Light Language  
Behavior  
Light Properties  
Review Questions

### **Module 3 Fiber**

Structure  
Types and Characters  
Performance  
Review Questions

### **Module 4 Cable**

# Advanced Telecommunications Technician 2

## Course Topics

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Structure  
Types  
NEC Compliance  
Dielectric Design  
Installation Characteristics  
Standards  
Review Questions

### **Module 5 Connectors**

Function  
Structure  
Performance  
Connector Features  
Types  
Installation Methods  
Review Questions

### **Module 6 Splices**

Locations  
Types  
Structure  
Performance  
Review Questions

### **Module 7 Passive Devices**

Two Installation Concerns  
Couplers  
Splitters  
Wavelength Division Demultiplexer  
Review Questions

### **Module 8 Optoelectronics**

Installation Concern  
Transmitter Types  
Performance Characteristics  
Summary  
Review Questions

### **Module 9 Hardware**

Functions  
Types  
Summary  
Review Questions

### **Module 10 Cable Installation Principles**

Introduction

Environmental Limits  
Installation Limits  
Cable Placement  
Planning and Management Issues  
Safety Issues  
End Preparation  
Summary  
Review Questions

### **Module 11 Connector Installation Principles**

Introduction  
Cable End Preparation  
Adhesives  
End Finishing  
Cleave and Crimp Installation  
Summary  
Review Questions

### **Module 12 Splicing Principles**

Introduction; Cable-  
Enclosure Compatibility  
Attachment Locations; Attachment  
Tray Preparation; Fiber End Preparation  
Cleaving; Fusion Splicing;  
Mechanical Splicing

Fiber Placement; Tray Placement  
Test All Splices; Enclosure Closure  
Summary; Review Questions

### **Module 13 Testing Principles**

Introduction  
Insertion Loss Testing  
Optical Domain Reflectometry  
Reflectance Testing  
Protocol Testing  
Other Equipment  
Standards  
Review Questions

### **Module 14 Certification Principles**

Introduction  
Required Information  
Insertion Loss Calculations  
Develop of A Strategy  
Certification

# Advanced Telecommunications Technician 2

## Course Topics

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An Alternative Strategy  
Summary  
Review Questions

### **Module 15 Cable Preparation**

Introduction; Tools and Supplies;  
Fiber Handling  
Loose Tube End Preparation for Pulling; Tight  
Tube End Preparation for Pulling  
Loose Tube End Preparation for Termination;  
Tight End Preparation for Termination  
Open Page Summary

### **Module 16 Connector Installation: Epoxy**

Introduction  
Materials and Supplies  
Procedure  
Troubleshooting  
Summary

### **Module 17 Connector INSTALLATIONS: Quick Cure Adhesive**

Introduction; Materials and Supplies  
Procedure; Single Mode Polishing  
Final Cleaning; Inspect Connector  
White Light Test; Final Assembly  
Troubleshooting; Summary

### **Module 18 Connector Installation: Hot Melt Adhesive**

Introduction; Materials and Supplies  
Procedure; Final Cleaning  
Inspect Connector; White Light Test  
Salvage; Trouble Shooting  
One Page Summary

### **Module 19 Connector Installation: Cleave and Crimp # 1**

Introduction, Tools and Supplies  
Procedure, Troubleshooting, Summary

### **Module 20 Connector Installation: Cleave and Crimp # 2**

Introduction  
Tools and Supplies Required  
SC Procedure

ST Compatible Procedure  
Test Loss  
Troubleshooting / Summary

### **Module 21 Connector Inspection**

Applicability  
Equipment Required  
Procedure  
Trouble Shooting

### **Module 22 Mid Span Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR Set Up  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Tray Attachment; Enclosure Finishing  
Trouble Shooting; Summary

### **Module 23 Pig Tail Splicing**

Introduction; Tools and Supplies  
End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Enclosure Tray Attachment; Enclosure Finishing  
Troubleshooting; Summary

### **Module 24 Ribbon Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Enclosure Preparation; Cable Attachment  
Furcation Tube Attachment; Fiber Length  
Verification  
OTDR Set Up; Fusion Splicing  
Process Completion; Troubleshooting  
Summary

### **Module 25 Appendices**

Indices of Refraction,  
Glossary / Acronyms  
Chapter 12 Answers, Chapter 14 Answers

# Advanced Telecommunications Technician 2

## Course Topics

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### **Module 26 Copper UTP Cabling**

Introduction to UTP/STP Cabling

### **Module 1 UTP/STP Cabling and Fundamentals**

Introduction to UTP/STP Cabling,

Cabling fundamentals and installation

Understands PBX fundamentals, Identifying switch types, Knowledge of software, Quality /

Speed of installations, Operation of Test sets

VOIP wiring, VOIP, Customer Service Skills

Ladder safety, Tool safety.

Testing principles (NEXT, RL, Attn, PSNEXT, etc.)

Operation of cable certification equipment

Specifications and Standards - ANSI/TIA/EIA

Copper Color Codes, UTP Cable Design

Cable Applications and Categories

UTP Cable Installation Techniques

Wiring 66/110 Blocks, Wall Plates;

Patch Panels; Jack Orientation,

Wiring Schemes

Connectors; RJ 11-45

### **Module 2 Copper Cabling Installation**

Cabling fundamentals and installation

Cable color codes

Testing principles (NEXT, RL, Attn, PSNEXT, etc.)

Terminate RJ-45 connectors

Terminate 66/110 style cross-connects

Operation of wire-map test tools

Operation of cable certification equipment

### **Module 1 Introduction to Home Audio and Video Technician**

Introduction

Safety and Personal Protective Equipment (PPE)

Tools and Materials

Customer Service and Professional

Communication

Ladder Handling and Safety

### **Module 2 Home Theater**

Home Theater Basics

Big Screen Televisions

Surround Sound

Picture and Sound Sources

Accessories

### **Module 3 Customer Relations**

Professional Conduct Scope and Conclusion

Review

Applications

### **Module 4 Safety**

The Occupational Safety and Health

Administration

Personal Protective Equipment (PPE)

Ladder,

Vehicle Safety

Applications

### **Module 5 Industry Standards**

Wiring Standards

Industry Associations and Organizations

Standardized Industry Symbols

Installation Tools

### **Module 6 Home Theater – Video Displays**

Technical Terms

Screen Size & Aspect Ratio

Picture Adjustability and Connections

Monitor Versus Television, Contrast Ratio, Comb

Filters

Resolution and Interlaced and Progressive Scan

Scan Frequency, HDTV, EDTV and SDTV

Calibration

### **Module 7 Home Theater - Audio**

Speakers

Components

Surround Sound Configuration

Equalization

Amplifiers and Power

### **Module 8 Home Theater – Installation**

Details of Installation

Home Theater Cabling

Installing A/V Systems

Plugging into Whole-Home Entertainment

Networks

# Advanced Telecommunications Technician 2

## Course Topics

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### **Module 9, 10 and 11 Home Theater – In Depth**

#### **HDTV**

HDTV Fundamentals

HDTV Broadcasts

HDTV Cables

DVRs

Internet Based HDTV, DVDs, Gadgets

Buying HDTVs

HDTV Accessories

Audio

Enhancing HDTV

Projectors

LCD Installation

Plasma Installation

Projector Installation

Surround Sound Installation

# Advanced Telecommunications Technician 3

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## **Educational Objective**

This program prepares students for various positions in all core aspects of the field of communications technology and installation, as well as the Commercial and Residential Security, CCTV Surveillance, and Alarm and Automation Installation industries. Students will learn fiber optics, twisted pair copper cabling, and cable television, satellite, and alarm installation, as well as outside plant construction and FTTx splicing, testing, and trouble-shooting processes. Graduates will receive a Certificate of Completion, Satellite Certification, Security and Alarm Certification and a Pole Climbing Theory and Ladder Safety Certificate. Additionally, graduates may sit for the SCTE certification exam and receive SCTE certification from an independent third-party if they attain a score of 76% or higher, as well as Fiber Optic (FOA) certification.

## **PROGRAM OUTLINE – BROADBAND CATV**

<b>Module</b>	<b>Course Title</b>
1	CATV Networks
2	Customer Relations
3	Safety
4	Tools & Materials
5	Cable & Connectors
6	Aerial Drop Installations
7	Underground Drop Installations
8	Exterior & Interior Wiring
9	Bonding & Grounding
10	Terminal Devices
11	Connecting Customer Equipment
12	Prewires
13	Multiple Dwelling Units
14	Digital Signals & the Return Path
15	Cable Modems
16	VOIP
17	Troubleshooting & Repair

# Advanced Telecommunications Technician 3

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## PROGRAM OUTLINE – SATELLITE

1	Introduction to Satellite Television
2	Basic System Technology
3	Coaxial Cable and Connectors
4	Site Survey
5	Antenna Installation
6	Grounding and Surge Protection
7	Primary Hookup and System Integration I
8	Primary Hookup and System Integration II
9	High Definition
10	Off Air Antennas
11	Test Equipment and Troubleshooting
12	Customer Education
13	Multiple Satellite Antenna Installation

## PROGRAM OUTLINE – FIBER

Module	Course Title
1	Introduction to Networks
2	A Light Overview
3	Fiber
4	Cable
5	Connectors
6	Splices
7	Passive Devices
8	Optoelectronics
9	Hardware
10	Cable Installation Principles
11	Connector Installation Principles
12	Splicing Principles
13	Testing Principles
14	Certification Principles
15	Cable Preparation

# Advanced Telecommunications Technician 3

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16	Connector Installation: Epoxy
17	Connector Installation: Quick Cure Adhesive

18	Connector Installation: Hot Melt Adhesive
19	Connector Installation: Cleave and Crimp #1
20	Connector Installation: Cleave and Crimp #2
21	Connector Inspection
22	Mid Span Splicing
23	Pig Tail Splicing
24	Ribbon Splicing
25	Appendices
26	Copper UTB Cabling

## **PROGRAM OUTLINE – TELEPHONE SWITCH**

1	UTP/STP Cabling and Fundamentals
2	Copper Cabling Installation

## **PROGRAM OUTLINE – SECURITY, SURVEILLANCE, AND ALARM**

<b>Module</b>	<b>Course Title</b>
1	Introduction to Security, Surveillance, and Alarm Technician
2	CCTV Cameras
3	CCTV Monitors
4	Video Processing Equipment
5	Analog Video Recorders
6	Digital Video
7	Transmission Media
8	Hardware Installation
9	Networking in CCTV
10	Auxiliary Equipment in CCTV
11	Locking Systems
12	Certifications



# Advanced Telecommunications Technician 3

## Course Topics

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### **Module 1 CATV Networks**

History  
The Television Signal  
Basic Cable System Operation  
The Broadband Network  
Architecture

### **Module 2 Customer Relations**

Professional Conduct  
Scope, Conclusion  
Chapter 2 Review  
Applications

### **Module 3 Safety**

The Occupational Safety and Health  
Administration  
Vehicle Safety  
Personal Protective Equipment (PPE)  
Utility Poles & Clearances  
Chapter 3 Review  
Applications

### **Test for Module 1, 2 & 3**

### **Module 4 Tools & Materials**

Tools  
Materials  
Conclusion  
Chapter 4 Review  
Applications

### **Module 5 Cable & Connectors**

Drop Cable Characteristics  
Drop Cable Electrical Characteristics  
Connectors  
Chapter 5 Review / Applications  
**Test for Module 4 & 5**

### **Module 6 Aerial Drop Installations**

Installing an Aerial Drop  
Other Types of Installation Work  
Chapter 6 Review / Applications  
**Test for Module 6**

### **Module 7 Underground Drop Installations**

Completing the Drop  
Burying Methods / Obstructions

Chapter 7 Review / Applications

### **Test for Module 7**

### **Module 8 Exterior & Interior Wiring**

Basic Building Construction  
Basics of Exterior Routing  
Drilling for Cable Entry  
Basics of Interior Routing  
Routing Cable Lines  
Chapter 8 Review / Applications

### **Test for Module 8**

### **Module 9 Bonding and Grounding**

Ground versus Bond  
Bonding and Grounding Codes  
National Electric Code (NEC)  
National Electrical and Safety Code (NESC)  
The Building Grounding Electrode System  
Methods and Priorities  
Chapter 9 Review  
Applications

### **Test for Module 9**

### **Module 10 Terminal Devices**

Tuners and Receivers  
Converters  
Televisions  
VCR's, VCPs and HDTV  
Other Terminal Devices  
Chapter 10 Review  
Applications

### **Test for Module 10 - Mid-Term Test**

### **Module 11 Connecting Customer Equip**

Technology and Terminology / The Installation /  
Making the Connection  
CPE Preliminaries / RF Connections /  
Converter/VCR/TV  
Baseband Connections / Combination RF and  
Baseband Connections  
Surround Sound System  
Chapter 11 Review Applications

### **Module 12 Prewires**

General Considerations  
Types of Prewires  
Prewiring Single-Family Homes  
Prewiring Multiple-Dwelling Units

# Advanced Telecommunications Technician 3

## Course Topics

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Damaged Cable Problems  
Chapter 12 Review Applications  
**Test for Module 11 & 12**

### **Module 13 Multiple Dwelling Units**

General Guidelines  
Wiring the MDU  
Wiring Concepts  
Reconnection of MDU's  
Chapter 13 Review  
Applications

### **Module 14 Digital Signals & The Return Path**

Analog Transmissions  
Digital Transmissions  
Digital Services  
Troubleshooting  
Chapter 11 Review  
Analog and Digital Signals  
**Test for Module 13 & 14**

### **Module 15 Cable Modems**

DOCSIS  
Implementing High-Speed Data  
Cable Modem Installation  
Chapter 16 Review  
Applications  
Introducing Cable Modems  
Understanding Broadband Cable Modems  
**Test for Module 15 & 16**

### **Module 16 VOIP**

Integrated Two-Way Services  
VOIP Basics  
Safety Precautions  
Tools & Equipment  
VOIP Installations  
Other Installation Issues  
Chapter 16 Review Applications

### **Module 17 Trouble Shooting & Repair**

Basic Signal Measurements  
Measuring and Calculating Signal Levels  
Identifying Common Cable Problems  
Test Equipment Care & Use  
Troubleshooting the House Drop  
Attenuation Specifications

Module 17 Review  
**Test for Module 17**

### **Module 1 Introduction to Satellite Television**

Course Objectives  
Regulatory Affairs  
OTARD  
Installer Responsibilities  
Installers Code of Ethics  
Signal Piracy  
Module 1 Review

### **Module 2 Basic System Technology**

DBS Breakdown  
Providers  
Satellites  
Transponders  
Customer Premise Equipment  
LNB's  
Module 2 Review

### **Module 3 Coaxial Cable and Connectors**

Connectors  
Coaxial Cable  
Cable Properties  
Cable Preparation  
Module 3 Review

### **Module 4 Site Survey**

Determining AZ/EL  
Magnetic Azimuth  
Clear Line of Site  
Customer Involvement  
Module 4 Review

### **Module 5 Antenna Installation**

Dish Mounting Recommended Practices  
Safety  
Installation Aspects  
Customer Relations  
Mounting Choices  
Coaxial Cable  
Signal Acquisition  
IRD Connection  
Module 5 Review

# Advanced Telecommunications Technician 3

## Course Topics

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### **Module 6 Grounding and Surge Protection**

Grounding/Bonding Materials  
Typical Grounding  
Copper Clad Steel as Bond  
Cable Routing Techniques  
Ground Block  
Module 26 Review

### **Module 7 Primary Hookup & System Integration I**

Objectives  
Connection  
System Integration  
Dual Receiver/Dual TV  
Single IRD/Off-Air  
Basic VCR Connection  
VCR Connection Options  
Other Connections  
Module 7 Review

### **Module 8 Primary Hookup & System Integration II**

Home Theater  
Module 8 Review

### **Module 9 High Definition**

Objectives  
What is High Definition (HD)  
Why HD is Better  
HD Broadcasts  
High Definition IRD  
Module 9 Review

### **Module 10 Off-Air Antennas**

Objectives  
Directional/Bi-Directional/Omni Directional  
Antenna Components  
Off-Air Bands  
Off-Air Broadcasts  
Antenna Web  
Sample Antenna Web Results  
Antennas  
Antennas Installation  
Diplexers  
Off-Air Antennas  
Module 10 Review

### **Module 11 Test Equipment & Troubleshooting**

Objectives  
Multi-Meter  
Troubleshooting Basics  
Troubleshooting  
Module 11 Review

### **Module 12 Customer Education**

Objectives  
Customer Education  
Module 12 Review

### **Module 13 Multiple Satellite Antenna Installation**

Objectives  
Clear Line-Of-Sight Mast Leveling  
Multiple Satellite  
Typical Elevation Lock  
Signal Strength Indications  
Dual Meters  
Switching Between LNB's  
Multi-switches  
Dish Pro Plus  
Medium Power KU Satellites  
Dish Solutions  
Module 13 Review

### **Module 1 Introduction to Networks**

Network Function  
Transmission Types  
Topologies  
Components  
The Fiber Network  
Review Questions

### **Module 2 A Light Overview**

Light Language  
Behavior  
Light Properties  
Review Questions

### **Module 3 Fiber**

Structure  
Types and Characters

# Advanced Telecommunications Technician 3

## Course Topics

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Performance  
Review Questions

### **Module 4 Cable**

Structure  
Types  
NEC Compliance  
Dielectric Design  
Installation Characteristics  
Standards  
Review Questions

### **Module 5 Connectors**

Function  
Structure  
Performance  
Connector Features  
Types  
Installation Methods  
Review Questions

### **Module 6 Splices**

Locations  
Types  
Structure  
Performance  
Review Questions

### **Module 7 Passive Devices**

Two Installation Concerns  
Couplers  
Splitters  
Wavelength Division Demultiplexer  
Review Questions

### **Module 8 Optoelectronics**

Installation Concern  
Transmitter Types  
Performance Characteristics  
Summary  
Review Questions

### **Module 9 Hardware**

Functions  
Types  
Summary

Review Questions

### **Module 10 Cable Installation Principles**

Introduction  
Environmental Limits  
Installation Limits  
Cable Placement  
Planning and Management Issues  
Safety Issues  
End Preparation  
Summary  
Review Questions

### **Module 11 Connector Installation Principles**

Introduction  
Cable End Preparation  
Adhesives  
End Finishing  
Cleave and Crimp Installation  
Summary  
Review Questions

### **Module 12 Splicing Principles**

Introduction; Cable-  
Enclosure Compatibility  
Attachment Locations; Attachment  
Tray Preparation; Fiber End Preparation  
Cleaving; Fusion Splicing;  
Mechanical Splicing

Fiber Placement; Tray Placement  
Test All Splices; Enclosure Closure  
Summary; Review Questions

### **Module 13 Testing Principles**

Introduction  
Insertion Loss Testing  
Optical Domain Reflectometry  
Reflectance Testing  
Protocol Testing  
Other Equipment  
Standards  
Review Questions

# Advanced Telecommunications Technician 3

## Course Topics

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### **Module 14 Certification Principles**

Introduction  
Required Information  
Insertion Loss Calculations  
Develop of A Strategy  
Certification  
An Alternative Strategy  
Summary  
Review Questions

### **Module 15 Cable Preparation**

Introduction; Tools and Supplies;  
Fiber Handling  
Loose Tube End Preparation for Pulling; Tight  
Tube End Preparation for Pulling  
Loose Tube End Preparation for Termination;  
Tight End Preparation for Termination  
Open Page Summary

### **Module 16 Connector Installation: Epoxy**

Introduction  
Materials and Supplies  
Procedure  
Troubleshooting  
Summary

### **Module 17 Connector INSTALLATIONS: Quick Cure Adhesive**

Introduction; Materials and Supplies  
Procedure; Single Mode Polishing  
Final Cleaning; Inspect Connector  
White Light Test; Final Assembly  
Troubleshooting; Summary

### **Module 18 Connector Installation: Hot Melt Adhesive**

Introduction; Materials and Supplies  
Procedure; Final Cleaning  
Inspect Connector; White Light Test  
Salvage; Trouble Shooting  
One Page Summary

### **Module 19 Connector Installation: Cleave and Crimp # 1**

Introduction, Tools and Supplies  
Procedure, Troubleshooting, Summary

### **Module 20 Connector Installation: Cleave and Crimp # 2**

Introduction  
Tools and Supplies Required  
SC Procedure  
ST Compatible Procedure  
Test Loss  
Troubleshooting / Summary

### **Module 21 Connector Inspection**

Applicability  
Equipment Required  
Procedure  
Trouble Shooting

### **Module 22 Mid Span Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR Set Up  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Tray Attachment; Enclosure Finishing  
Trouble Shooting; Summary

### **Module 23 Pig Tail Splicing**

Introduction; Tools and Supplies  
End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Enclosure Tray Attachment; Enclosure Finishing  
Troubleshooting; Summary

### **Module 24 Ribbon Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Enclosure Preparation; Cable Attachment  
Furcation Tube Attachment; Fiber Length  
Verification  
OTDR Set Up; Fusion Splicing  
Process Completion; Troubleshooting  
Summary

# Advanced Telecommunications Technician 3

## Course Topics

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### **Module 25 Appendices**

Indices of Refraction,  
Glossary / Acronyms  
Chapter 12 Answers, Chapter 14 Answers

### **Module 26 Copper UTP Cabling**

Introduction to UTP/STP Cabling

### **Module 1 UTP/STP Cabling and Fundamentals**

Introduction to UTP/STP Cabling,  
Cabling fundamentals and installation  
Understands PBX fundamentals, Identifying  
switch types, Knowledge of software, Quality /  
Speed of installations, Operation of Test sets  
VOIP wiring, VOIP, Customer Service Skills  
Ladder safety, Tool safety.  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Operation of cable certification equipment  
Specifications and Standards - ANSI/TIA/EIA  
Copper Color Codes, UTP Cable Design  
Cable Applications and Categories  
UTP Cable Installation Techniques  
Wiring 66/110 Blocks, Wall Plates;  
Patch Panels; Jack Orientation,  
Wiring Schemes  
Connectors; RJ 11-45

### **Module 2 Copper Cabling Installation**

Cabling fundamentals and installation  
Cable color codes  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Terminate RJ-45 connectors  
Terminate 66/110 style cross-connects  
Operation of wire-map test tools  
Operation of cable certification equipment

### **Module 1 Introduction to Security, Surveillance and Alarm Technician**

Introduction  
Safety and Personal Protective Equipment (PPE)  
Tools and Materials  
Customer Service and Professional  
Communication  
Ladder Handling & Safety

### **Module 2 CCTV cameras**

General Information About Cameras  
Tube Cameras  
CCD Cameras  
Camera Specifications and Their Meanings  
CMOS Technology

### **Module 3 CCTV monitors**

General about monitors; Monitor sizes  
Monitor adjustments; Impedance switch  
Viewing conditions; Gamma  
LCD monitors; Projectors and projection monitors  
Plasma display monitors; Field emission  
technology displays

### **Module 4 Video processing equipment**

Analog switching equipment  
Switching and processing equipment

### **Module 5 Analog video recorders**

A little bit of history and the basic concept  
The early VCR concepts  
The video home system (VHS) concept  
Super VHS, Y/C, and comb filtering  
Time-lapse VCRs (TL VCRs)

### **Module 6 Digital Video**

Digital video recorders (DVRs)  
The various standards  
The need for compression; Types of  
compressions; DCT as a basis  
The variety of compression standards in CCTV  
About Pixels and resolution

### **Module 7 Transmission media**

Coaxial cables; Twisted pair video transmission  
Microwave Links  
RF wireless (open air) video transmission  
Infrared wireless (open air) video transmissions  
Transmission of images over telephone lines  
Fiber optics; Fiber optics cables  
Installation techniques, Fiber optic link analysis

# Advanced Telecommunications Technician 3

## Course Topics

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### **Module 8 Hardware Installation**

Wireless Systems  
Wireless Intercom Systems  
Wireless Smoke Alarms  
Motion Detectors  
Electronics and Security Monitoring

### **Module 9 Networking in CCTV**

The Information Technology era  
Computers and networks; LAN and WAN  
Ethernet; The main Ethernet categories  
Ethernet over coax and UTP cables  
Fiber optics network cabling  
Network concepts and components; Networking  
Software, Networking Certification  
IP addresses; Domain Name Systems (DNS)  
Networking hardware  
Wireless LAN; Putting a network system together,  
SAS Big Data Analysis & application

### **Module 10 Auxiliary equipment in CCTV**

Pan and tilt heads; Pan and tilt domes  
Preset positioning P/T heads; PTZ site drivers  
Camera housings; Lighting in CCTV  
Infrared lights; Ground loop correctors  
Lighting protection  
In-line video amplifiers/equalizers  
Video distribution amplifiers (VDAs)

### **Module 11 Locking Systems**

Multipoint Locking System  
Impact Handle & Lock Set  
Smart Key Lock Set Installation  
Garage Door Locking System

### **Module 12 Certifications**

Technical Certification Preparation A+  
Security Certification training /prep

# Advanced Telecommunications Technician 4

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## Educational Objective

This program is our most comprehensive and provides graduates the most career flexibility in the growing communication technology fields, including the Residential and Commercial Fiber Optics, Cable TV, Satellite, Structured Cabling, Audio/Video, CCTV, Security Surveillance, Alarm, and Automation Installation industries. Students will learn fiber optics, twisted pair copper cabling, and cable television, satellite, and alarm installation. Graduates will receive a Certificate of Completion, Satellite Certification, Security and Alarm Certification and a Pole Climbing Theory and Ladder Safety Certificate. Additionally, graduates may sit for the SCTE certification exam and receive SCTE certification from an independent third-party if they attain a score of 76% or higher, as well as Fiber Optic (FOA) certification.

## **PROGRAM OUTLINE – BROADBAND CATV**

<b>Module</b>	<b>Course Title</b>
1	CATV Networks
2	Customer Relations
3	Safety
4	Tools & Materials
5	Cable & Connectors
6	Aerial Drop Installations
7	Underground Drop Installations
8	Exterior & Interior Wiring
9	Bonding & Grounding
10	Terminal Devices
11	Connecting Customer Equipment
12	Prewires
13	Multiple Dwelling Units
14	Digital Signals & the Return Path
15	Cable Modems
16	VOIP
17	Troubleshooting & Repair

## **PROGRAM OUTLINE – SATELLITE**

1	Introduction to Satellite Television
2	Basic System Technology
3	Coaxial Cable and Connectors
4	Site Survey
5	Antenna Installation



# Advanced Telecommunications Technician 4

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6	Grounding and Surge Protection
7	Primary Hookup and System Integration I
8	Primary Hookup and System Integration II
9	High Definition
10	Off Air Antennas
11	Test Equipment and Troubleshooting
12	Customer Education
13	Multiple Satellite Antenna Installation

## PROGRAM OUTLINE – FIBER

Module	Course Title
1	Introduction to Networks
2	A Light Overview
3	Fiber
4	Cable
5	Connectors
6	Splices
7	Passive Devices
8	Optoelectronics
9	Hardware
10	Cable Installation Principles
11	Connector Installation Principles
12	Splicing Principles
13	Testing Principles
14	Certification Principles
15	Cable Preparation
16	Connector Installation: Epoxy
17	Connector Installation: Quick Cure Adhesive
18	Connector Installation: Hot Melt Adhesive
19	Connector Installation: Cleave and Crimp #1
20	Connector Installation: Cleave and Crimp #2
21	Connector Inspection
22	Mid Span Splicing
23	Pig Tail Splicing

# Advanced Telecommunications Technician 4

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24	Ribbon Splicing
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25	Appendices
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26	Copper UTB Cabling
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## **PROGRAM OUTLINE – TELEPHONE SWITCH**

1	UTP/STP Cabling and Fundamentals
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2	Copper Cabling Installation
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## **PROGRAM OUTLINE – HOME AUDIO AND VIDEO**

<b>Module</b>	<b>Course Title</b>
1	Introduction Home Audio & Video Technician
2	Home Theater
3	Customer Relations
4	Safety
5	Industry Standards
6	Home Theater – Video Displays
7	Home Theater – Audio
8	Home Theater – Installation
9-11	Home Theater – In Depth HDTV

# Advanced Telecommunications Technician 4

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## PROGRAM OUTLINE – SECURITY, SURVEILLANCE, AND ALARM

Module	Course Title
1	Introduction to Security, Surveillance, and Alarm Technician
2	CCTV Cameras
3	CCTV Monitors
4	Video Processing Equipment
5	Analog Video Recorders
6	Digital Video
7	Transmission Media
8	Hardware Installation
9	Networking in CCTV
10	Auxiliary Equipment in CCTV
11	Locking Systems
12	Certifications

# Advanced Telecommunications Technician 4

## Course Topics

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### **Module 1 CATV Networks**

History  
The Television Signal  
Basic Cable System Operation  
The Broadband Network  
Architecture

### **Module 2 Customer Relations**

Professional Conduct  
Scope, Conclusion  
Chapter 2 Review  
Applications

### **Module 3 Safety**

The Occupational Safety and Health  
Administration  
Vehicle Safety  
Personal Protective Equipment (PPE)  
Utility Poles & Clearances  
Chapter 3 Review  
Applications

### **Test for Module 1, 2 & 3**

### **Module 4 Tools & Materials**

Tools  
Materials  
Conclusion  
Chapter 4 Review  
Applications

### **Module 5 Cable & Connectors**

Drop Cable Characteristics  
Drop Cable Electrical Characteristics  
Connectors  
Chapter 5 Review / Applications  
**Test for Module 4 & 5**

### **Module 6 Aerial Drop Installations**

Installing an Aerial Drop  
Other Types of Installation Work  
Chapter 6 Review / Applications  
**Test for Module 6**

### **Module 7 Underground Drop Installations**

Completing the Drop  
Burying Methods / Obstructions

Chapter 7 Review / Applications

### **Test for Module 7**

### **Module 8 Exterior & Interior Wiring**

Basic Building Construction  
Basics of Exterior Routing  
Drilling for Cable Entry  
Basics of Interior Routing  
Routing Cable Lines  
Chapter 8 Review / Applications

### **Test for Module 8**

### **Module 9 Bonding and Grounding**

Ground versus Bond  
Bonding and Grounding Codes  
National Electric Code (NEC)  
National Electrical and Safety Code (NECS)  
The Building Grounding Electrode System  
Methods and Priorities  
Chapter 9 Review  
Applications

### **Test for Module 9**

### **Module 10 Terminal Devices**

Tuners and Receivers  
Converters  
Televisions  
VCR's, VCPs and HDTV  
Other Terminal Devices  
Chapter 10 Review  
Applications

### **Test for Module 10 - Mid-Term Test**

### **Module 11 Connecting Customer Equip**

Technology and Terminology / The Installation /  
Making the Connection  
CPE Preliminaries / RF Connections /  
Converter/VCR/TV  
Baseband Connections / Combination RF and  
Baseband Connections  
Surround Sound System  
Chapter 11 Review Applications

### **Module 12 Prewires**

General Considerations  
Types of Prewires  
Prewiring Single-Family Homes  
Prewiring Multiple-Dwelling Units

# Advanced Telecommunications Technician 4

## Course Topics

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Damaged Cable Problems  
Chapter 12 Review Applications  
**Test for Module 11 & 12**

### **Module 13 Multiple Dwelling Units**

General Guidelines  
Wiring the MDU  
Wiring Concepts  
Reconnection of MDU's  
Chapter 13 Review  
Applications

### **Module 14 Digital Signals & The Return Path**

Analog Transmissions  
Digital Transmissions  
Digital Services  
Troubleshooting  
Chapter 11 Review  
Analog and Digital Signals  
**Test for Module 13 & 14**

### **Module 15 Cable Modems**

DOCSIS  
Implementing High-Speed Data  
Cable Modem Installation  
Chapter 16 Review  
Applications  
Introducing Cable Modems  
Understanding Broadband Cable Modems  
**Test for Module 15 & 16**

### **Module 16 VOIP**

Integrated Two-Way Services  
VOIP Basics  
Safety Precautions  
Tools & Equipment  
VOIP Installations  
Other Installation Issues  
Chapter 16 Review Applications

### **Module 17 Trouble Shooting & Repair**

Basic Signal Measurements  
Measuring and Calculating Signal Levels  
Identifying Common Cable Problems  
Test Equipment Care & Use  
Troubleshooting the House Drop  
Attenuation Specifications

Module 17 Review  
**Test for Module 17**

### **Module 1 Introduction to Satellite Television**

Course Objectives  
Regulatory Affairs  
OTARD  
Installer Responsibilities  
Installers Code of Ethics  
Signal Piracy  
Module 1 Review

### **Module 2 Basic System Technology**

DBS Breakdown  
Providers  
Satellites  
Transponders  
Customer Premise Equipment  
LNB's  
Module 2 Review

### **Module 3 Coaxial Cable and Connectors**

Connectors  
Coaxial Cable  
Cable Properties  
Cable Preparation  
Module 3 Review

### **Module 4 Site Survey**

Determining AZ/EL  
Magnetic Azimuth  
Clear Line of Site  
Customer Involvement  
Module 4 Review

### **Module 5 Antenna Installation**

Dish Mounting Recommended Practices  
Safety  
Installation Aspects  
Customer Relations  
Mounting Choices  
Coaxial Cable  
Signal Acquisition  
IRD Connection  
Module 5 Review

# Advanced Telecommunications Technician 4

## Course Topics

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### **Module 6 Grounding and Surge Protection**

Grounding/Bonding Materials  
Typical Grounding  
Copper Clad Steel as Bond  
Cable Routing Techniques  
Ground Block  
Module 26 Review

### **Module 7 Primary Hookup & System Integration I**

Objectives  
Connection  
System Integration  
Dual Receiver/Dual TV  
Single IRD/Off-Air  
Basic VCR Connection  
VCR Connection Options  
Other Connections  
Module 7 Review

### **Module 8 Primary Hookup & System Integration II**

Home Theater  
Module 8 Review

### **Module 9 High Definition**

Objectives  
What is High Definition (HD)  
Why HD is Better  
HD Broadcasts  
High Definition IRD  
Module 9 Review

### **Module 10 Off-Air Antennas**

Objectives  
Directional/Bi-Directional/Omni Directional  
Antenna Components  
Off-Air Bands  
Off-Air Broadcasts  
Antenna Web  
Sample Antenna Web Results  
Antennas  
Antennas Installation  
Diplexers  
Off-Air Antennas  
Module 10 Review

### **Module 11 Test Equipment & Troubleshooting**

Objectives  
Multi-Meter  
Troubleshooting Basics  
Troubleshooting  
Module 11 Review

### **Module 12 Customer Education**

Objectives  
Customer Education  
Module 12 Review

### **Module 13 Multiple Satellite Antenna Installation**

Objectives  
Clear Line-Of-Sight Mast Leveling  
Multiple Satellite  
Typical Elevation Lock  
Signal Strength Indications  
Dual Meters  
Switching Between LNB's  
Multi-switches  
Dish Pro Plus  
Medium Power KU Satellites  
Dish Solutions  
Module 13 Review

# Advanced Telecommunications Technician 4

## Course Topics

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### **Module 1 Introduction to Networks**

Network Function  
Transmission Types  
Topologies  
Components  
The Fiber Network  
Review Questions

### **Module 2 A Light Overview**

Light Language  
Behavior  
Light Properties  
Review Questions

### **Module 3 Fiber**

Structure  
Types and Characters  
Performance  
Review Questions

### **Module 4 Cable**

Structure  
Types  
NEC Compliance  
Dielectric Design  
Installation Characteristics  
Standards  
Review Questions

### **Module 5 Connectors**

Function  
Structure  
Performance  
Connector Features  
Types  
Installation Methods  
Review Questions

### **Module 6 Splices**

Locations  
Types  
Structure  
Performance  
Review Questions

### **Module 7 Passive Devices**

Two Installation Concerns  
Couplers  
Splitters  
Wavelength Division Demultiplexer  
Review Questions

### **Module 8 Optoelectronics**

Installation Concern  
Transmitter Types  
Performance Characteristics  
Summary  
Review Questions

### **Module 9 Hardware**

Functions  
Types  
Summary  
Review Questions

### **Module 10 Cable Installation Principles**

Introduction  
Environmental Limits  
Installation Limits  
Cable Placement  
Planning and Management Issues  
Safety Issues  
End Preparation  
Summary  
Review Questions

### **Module 11 Connector Installation Principles**

Introduction  
Cable End Preparation  
Adhesives  
End Finishing  
Cleave and Crimp Installation  
Summary  
Review Questions

### **Module 12 Splicing Principles**

Introduction; Cable-  
Enclosure Compatibility  
Attachment Locations; Attachment

# Advanced Telecommunications Technician 4

## Course Topics

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Tray Preparation; Fiber End Preparation  
Cleaving; Fusion Splicing;  
Mechanical Splicing

Fiber Placement; Tray Placement  
Test All Splices; Enclosure Closure  
Summary; Review Questions

### **Module 13 Testing Principles**

Introduction  
Insertion Loss Testing  
Optical Domain Reflectometry  
Reflectance Testing  
Protocol Testing  
Other Equipment  
Standards  
Review Questions

### **Module 14 Certification Principles**

Introduction  
Required Information  
Insertion Loss Calculations  
Develop of A Strategy  
Certification  
An Alternative Strategy  
Summary  
Review Questions

### **Module 15 Cable Preparation**

Introduction; Tools and Supplies;  
Fiber Handling  
Loose Tube End Preparation for Pulling; Tight  
Tube End Preparation for Pulling  
Loose Tube End Preparation for Termination;  
Tight End Preparation for Termination  
Open Page Summary

### **Module 16 Connector Installation: Epoxy**

Introduction  
Materials and Supplies  
Procedure  
Troubleshooting  
Summary

### **Module 17 Connector INSTALLATIONS: Quick Cure Adhesive**

Introduction; Materials and Supplies  
Procedure; Single Mode Polishing  
Final Cleaning; Inspect Connector  
White Light Test; Final Assembly  
Troubleshooting; Summary

### **Module 18 Connector Installation: Hot Melt Adhesive**

Introduction; Materials and Supplies  
Procedure; Final Cleaning  
Inspect Connector; White Light Test  
Salvage; Trouble Shooting  
One Page Summary

### **Module 19 Connector Installation: Cleave and Crimp # 1**

Introduction, Tools and Supplies  
Procedure, Troubleshooting, Summary

### **Module 20 Connector Installation: Cleave and Crimp # 2**

Introduction  
Tools and Supplies Required  
SC Procedure  
ST Compatible Procedure  
Test Loss  
Troubleshooting / Summary

### **Module 21 Connector Inspection**

Applicability  
Equipment Required  
Procedure  
Trouble Shooting

### **Module 22 Mid Span Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR Set Up  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Tray Attachment; Enclosure Finishing  
Trouble Shooting; Summary

### **Module 23 Pig Tail Splicing**

Introduction; Tools and Supplies



# Advanced Telecommunications Technician 4

## Course Topics

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End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Enclosure Tray Attachment; Enclosure Finishing  
Troubleshooting; Summary

### **Module 24 Ribbon Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Enclosure Preparation; Cable Attachment  
Furcation Tube Attachment; Fiber Length  
Verification  
OTDR Set Up; Fusion Splicing  
Process Completion; Troubleshooting  
Summary

### **Module 25 Appendices**

Indices of Refraction,  
Glossary / Acronyms  
Chapter 12 Answers, Chapter 14 Answers

### **Module 26 Copper UTP Cabling**

Introduction to UTP/STP Cabling

### **Module 1 UTP/STP Cabling and Fundamentals**

Introduction to UTP/STP Cabling,  
Cabling fundamentals and installation  
Understands PBX fundamentals, Identifying  
switch types, Knowledge of software, Quality /  
Speed of installations, Operation of Test sets  
VOIP wiring, VOIP, Customer Service Skills  
Ladder safety, Tool safety.  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Operation of cable certification equipment  
Specifications and Standards - ANSI/TIA/EIA  
Copper Color Codes, UTP Cable Design  
Cable Applications and Categories  
UTP Cable Installation Techniques  
Wiring 66/110 Blocks, Wall Plates;  
Patch Panels; Jack Orientation,  
Wiring Schemes  
Connectors; RJ 11-45

### **Module 2 Copper Cabling Installation**

Cabling fundamentals and installation  
Cable color codes  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Terminate RJ-45 connectors  
Terminate 66/110 style cross-connects  
Operation of wire-map test tools  
Operation of cable certification equipment

### **Module 1 Introduction to Home Audio and Video**

Introduction  
Safety and Personal Protective Equipment (PPE)  
Tools and Materials  
Customer Service and Professional  
Communication  
Ladder Handling and Safety

### **Module 2 Home Theater**

Home Theater Basics  
Big Screen Televisions  
Surround Sound  
Picture and Sound Sources  
Accessories

### **Module 3 Customer Relations**

Professional Conduct Scope and Conclusion  
Review  
Applications

### **Module 4 Safety**

The Occupational Safety and Health  
Administration  
Personal Protective Equipment (PPE)  
Ladder,  
Vehicle Safety  
Applications

### **Module 5 Industry Standards**

Wiring Standards  
Industry Associations and Organizations  
Standardized Industry Symbols  
Installation Tools

# Advanced Telecommunications Technician 4

## Course Topics

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### **Module 6 Home Theater – Video Displays**

Technical Terms  
Screen Size & Aspect Ratio  
Picture Adjustability and Connections  
Monitor Versus Television, Contrast Ratio, Comb Filters  
Resolution and Interlaced and Progressive Scan  
Scan Frequency, HDTV, EDTV and SDTV  
Calibration

### **Module 7 Home Theater - Audio**

Speakers  
Components  
Surround Sound Configuration  
Equalization  
Amplifiers and Power

### **Module 8 Home Theater – Installation**

Details of Installation  
Home Theater Cabling  
Installing A/V Systems  
Plugging into Whole-Home Entertainment Networks

### **Module 9, 10 and 11 Home Theater – In Depth**

#### **HDTV**

HDTV Fundamentals  
HDTV Broadcasts  
HDTV Cables  
DVRs  
Internet Based HDTV, DVDs, Gadgets  
Buying HDTVs  
HDTV Accessories  
Audio  
Enhancing HDTV  
Projectors  
LCD Installation  
Plasma Installation  
Projector Installation  
Surround Sound Installation

### **Module 1 Introduction to Security, Surveillance and Alarm Technician**

Introduction  
Safety and Personal Protective Equipment (PPE)  
Tools and Materials

Customer Service and Professional Communication  
Ladder Handling & Safety

### **Module 2 CCTV cameras**

General Information About Cameras  
Tube Cameras  
CCD Cameras  
Camera Specifications and Their Meanings  
CMOS Technology

### **Module 3 CCTV monitors**

General about monitors; Monitor sizes  
Monitor adjustments; Impedance switch  
Viewing conditions; Gamma  
LCD monitors; Projectors and projection monitors  
Plasma display monitors; Field emission technology displays

### **Module 4 Video processing equipment**

Analog switching equipment  
Switching and processing equipment

### **Module 5 Analog video recorders**

A little bit of history and the basic concept  
The early VCR concepts  
The video home system (VHS) concept  
Super VHS, Y/C, and comb filtering  
Time-lapse VCRs (TL VCRs)

### **Module 6 Digital Video**

Digital video recorders (DVRs)  
The various standards  
The need for compression; Types of compressions; DCT as a basis  
The variety of compression standards in CCTV  
About Pixels and resolution

### **Module 7 Transmission media**

Coaxial cables; Twisted pair video transmission  
Microwave Links  
RF wireless (open air) video transmission  
Infrared wireless (open air) video transmissions  
Transmission of images over telephone lines  
Fiber optics; Fiber optics cables  
Installation techniques, Fiber optic link analysis

# Advanced Telecommunications Technician 4

## Course Topics

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### **Module 8 Hardware Installation**

Wireless Systems  
Wireless Intercom Systems  
Wireless Smoke Alarms  
Motion Detectors  
Electronics and Security Monitoring

### **Module 9 Networking in CCTV**

The Information Technology era  
Computers and networks; LAN and WAN  
Ethernet; The main Ethernet categories  
Ethernet over coax and UTP cables  
Fiber optics network cabling  
Network concepts and components; Networking  
Software, Networking Certification  
IP addresses; Domain Name Systems (DNS)  
Networking hardware  
Wireless LAN; Putting a network system together,  
SAS Big Data Analysis & application

### **Module 10 Auxiliary equipment in CCTV**

Pan and tilt heads; Pan and tilt domes  
Preset positioning P/T heads; PTZ site drivers  
Camera housings; Lighting in CCTV  
Infrared lights; Ground loop correctors  
Lighting protection  
In-line video amplifiers/equalizers  
Video distribution amplifiers (VDAs)

### **Module 11 Locking Systems**

Multipoint Locking System  
Impact Handle & Lock Set  
Smart Key Lock Set Installation  
Garage Door Locking System

### **Module 12 Certifications**

Technical Certification Preparation A+  
Security Certification training /prep

# Fiber Optic Technician

## Educational Objective

This program provides emphasis in fiber optics installation, splicing, testing and troubleshooting that goes from basic to advanced concepts and installation practices. The program consists of theory and extensive hands-on lab practice to cement coursework together and prepare the student for certification exams and employment. Successful graduates will qualify as entry-level positions as fiber optic cable installers, splicing technicians, data cable technicians, and network cable installers. Students also will learn cable assembly manufacturing, and repair, test and inspection of network cabling systems. Graduates will receive a Certificate of Completion. Additionally, graduates may sit for the certification exam and receive Fiber Optic (FOA) certification as a certified fiber optic technician (CFOT) from an independent third-party if they attain a score of 76% or higher.

## PROGRAM OUTLINE

Module	Course Title
1	Introduction to Networks
2	A Light Overview
3	Fiber
4	Cable
5	Connectors
6	Splices
7	Passive Devices
8	Optoelectronics
9	Hardware
10	Cable Installation Principles
11	Connector Installation Principles
12	Splicing Principles
13	Testing Principles
14	Certification Principles
15	Cable Preparation
16	Connector Installation: Epoxy
17	Connector Installation: Quick Cure Adhesive
18	Connector Installation: Hot Melt Adhesive
19	Connector Installation: Cleave and Crimp #1
20	Connector Installation: Cleave and Crimp #2
21	Connector Inspection
22	Mid Span Splicing
23	Pig Tail Splicing
24	Ribbon Splicing
25	Appendices
26	Copper UTB Cabling

# Fiber Optic Technician Course Topics

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## **Module 1 Introduction to Networks**

Network Function  
Transmission Types  
Topologies  
Components  
The Fiber Network  
Review Questions

## **Module 2 A Light Overview**

Light Language  
Behavior  
Light Properties  
Review Questions

## **Module 3 Fiber**

Structure  
Types and Characters  
Performance  
Review Questions

## **Module 4 Cable**

Structure  
Types  
NEC Compliance  
Dielectric Design  
Installation Characteristics  
Standards  
Review Questions

## **Module 5 Connectors**

Function  
Structure  
Performance  
Connector Features  
Types  
Installation Methods  
Review Questions

## **Module 6 Splices**

Locations  
Types  
Structure  
Performance  
Review Questions

## **Module 7 Passive Devices**

Two Installation Concerns  
Couplers  
Splitters  
Wavelength Division Demultiplexer  
Review Questions

## **Module 8 Optoelectronics**

Installation Concern  
Transmitter Types  
Performance Characteristics  
Summary  
Review Questions

## **Module 9 Hardware**

Functions  
Types  
Summary  
Review Questions

## **Module 10 Cable Installation Principles**

Introduction  
Environmental Limits  
Installation Limits  
Cable Placement  
Planning and Management Issues  
Safety Issues  
End Preparation  
Summary  
Review Questions

## **Module 11 Connector Installation Principles**

Introduction  
Cable End Preparation  
Adhesives  
End Finishing  
Cleave and Crimp Installation  
Summary  
Review Questions

## **Module 12 Splicing Principles**

Introduction; Cable-  
Enclosure Compatibility  
Attachment Locations; Attachment  
Tray Preparation; Fiber End Preparation  
Cleaving; Fusion Splicing;  
Mechanical Splicing

# Fiber Optic Technician Course Topics

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Fiber Placement; Tray Placement  
Test All Splices; Enclosure Closure  
Summary; Review Questions

## **Module 13 Testing Principles**

Introduction  
Insertion Loss Testing  
Optical Domain Reflectometry  
Reflectance Testing  
Protocol Testing  
Other Equipment  
Standards  
Review Questions

## **Module 14 Certification Principles**

Introduction  
Required Information  
Insertion Loss Calculations  
Develop of A Strategy  
Certification  
An Alternative Strategy  
Summary  
Review Questions

## **Module 15 Cable Preparation**

Introduction; Tools and Supplies;  
Fiber Handling  
Loose Tube End Preparation for Pulling; Tight  
Tube End Preparation for Pulling  
Loose Tube End Preparation for Termination;  
Tight End Preparation for Termination  
Open Page Summary

## **Module 16 Connector Installation: Epoxy**

Introduction  
Materials and Supplies  
Procedure  
Troubleshooting  
Summary

## **Module 17 Connector INSTALLATIONS: Quick Cure Adhesive**

Introduction; Materials and Supplies  
Procedure; Single Mode Polishing  
Final Cleaning; Inspect Connector  
White Light Test; Final Assembly  
Troubleshooting; Summary

## **Module 18 Connector Installation: Hot Melt Adhesive**

Introduction; Materials and Supplies  
Procedure; Final Cleaning  
Inspect Connector; White Light Test  
Salvage; Trouble Shooting  
One Page Summary

## **Module 19 Connector Installation: Cleave and Crimp # 1**

Introduction, Tools and Supplies  
Procedure, Troubleshooting, Summary

## **Module 20 Connector Installation: Cleave and Crimp # 2**

Introduction  
Tools and Supplies Required  
SC Procedure  
ST Compatible Procedure  
Test Loss  
Troubleshooting / Summary

## **Module 21 Connector Inspection**

Applicability  
Equipment Required  
Procedure  
Trouble Shooting

## **Module 22 Mid Span Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR Set Up  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Tray Attachment; Enclosure Finishing  
Trouble Shooting; Summary

## **Module 23 Pig Tail Splicing**

Introduction; Tools and Supplies  
End Preparation; Enclosure Preparation  
Cable Attachment; Buffer Tube Attachment  
Fiber Length Verification; OTDR  
Splicing; Test Loss  
Fiber Coiling; Buffer Tube Coiling  
Enclosure Tray Attachment; Enclosure Finishing  
Troubleshooting; Summary

# Fiber Optic Technician Course Topics

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## **Module 24 Ribbon Splicing**

Introduction; Tools and Supplies Required  
Cable End Preparation; Enclosure Preparation  
Enclosure Preparation; Cable Attachment  
Furcation Tube Attachment; Fiber Length  
Verification  
OTDR Set Up; Fusion Splicing  
Process Completion; Troubleshooting  
Summary

## **Module 25 Appendices**

Indices of Refraction,  
Glossary / Acronyms  
Chapter 12 Answers, Chapter 14 Answers

## **Module 26 Copper UTP Cabling**

Introduction to UTP/STP Cabling

# Audio and Video Technician

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## Educational Objective

This program introduces students to the tools of the trade in commercial and residential high-end audio/video automation service and installation. Hands-on activities are designed to familiarize students with the variety of tools used by industry professionals, and students will learn about the many trades involved in the field, as well as how to co-exist in the job environment. Additionally, students will learn the fundamentals of system design, which covers system parameters ranging from system configuration to reading blueprints. This will prepare the graduate to undertake the challenges of correct system interpretation and installation execution. Graduates will receive a Certificate of Completion. Additionally, graduates may receive third-party certification for equipment upon passing the independently administered exam(s).

## **PROGRAM OUTLINE**

<b>Module</b>	<b>Course Title</b>
1	Introduction Home Audio & Video Technician
2	Home Theater
3	Customer Relations
4	Safety
5	Industry Standards
6	Home Theater – Video Displays
7	Home Theater – Audio
8	Home Theater – Installation
9-11	Home Theater – In Depth HDTV



# Audio and Video Technician Course Topics

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## **Module 1 Introduction to Home Audio and Video Technician**

Introduction  
Safety and Personal Protective Equipment (PPE)  
Tools and Materials  
Customer Service and Professional Communication  
Ladder Handling and Safety

## **Module 2 Home Theater**

Home Theater Basics  
Big Screen Televisions  
Surround Sound  
Picture and Sound Sources  
Accessories

## **Module 3 Customer Relations**

Professional Conduct Scope and Conclusion  
Review  
Applications

## **Module 4 Safety**

The Occupational Safety and Health Administration  
Personal Protective Equipment (PPE)  
Ladder,  
Vehicle Safety  
Applications

## **Module 5 Industry Standards**

Wiring Standards  
Industry Associations and Organizations  
Standardized Industry Symbols  
Installation Tools

## **Module 6 Home Theater – Video Displays**

Technical Terms  
Screen Size & Aspect Ratio  
Picture Adjustability and Connections  
Monitor Versus Television, Contrast Ratio, Comb Filters  
Resolution and Interlaced and Progressive Scan  
Scan Frequency, HDTV, EDTV and SDTV  
Calibration

## **Module 7 Home Theater - Audio**

Speakers  
Components  
Surround Sound Configuration  
Equalization  
Amplifiers and Power

## **Module 8 Home Theater – Installation**

Details of Installation  
Home Theater Cabling  
Installing A/V Systems  
Plugging into Whole-Home Entertainment Networks

## **Module 9, 10 and 11 Home Theater – In Depth**

### **HDTV**

HDTV Fundamentals  
HDTV Broadcasts  
HDTV Cables  
DVRs  
Internet Based HDTV, DVDs, Gadgets  
Buying HDTVs  
HDTV Accessories  
Audio  
Enhancing HDTV  
Projectors  
LCD Installation  
Plasma Installation  
Projector Installation  
Surround Sound Installation

# Pole Climbing and Ladder Safety

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## **Educational Objective**

The program is highly intensive and will train participants how to safely and effectively ascend and descend wooden poles using pole climbing gaffs and associated equipment. The pole climbing technique that will be taught is the "3-point contact free hand method." Students will also learn how to use ladders on the pole and at mid-span using the appropriate ladder securing equipment and will complete exercises using construction tools and equipment. Climbers will adhere to all safety practices, and students are advised that the training is physically demanding. Graduates will receive a Certificate of Completion.

## **PROGRAM OUTLINE**

<b>Module</b>	<b>Course Title</b>
1	Personal Protection Equipment
2	Ladder Handling and Safety

## **Pole Climbing and Ladder Safety Course Topics**

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### **Module I Personal Protection Equipment**

Equipment Inventory, Standards  
Equipment Inspection, Proper Wear  
Pole Climbing Theory

### **Module II Ladder Handling and Safety**

Identify & Inspect the Parts of a Ladder  
Determine How and When to Use the Three Ladder Carry Methods  
Safety Ratio Using the Proper Ratio  
Ascend and Descend the Ladder Safely  
Ladder Safety Certification

# Private Security Guard

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## Educational Objective

This program prepares students with the basic knowledge of Private Security Guard, more commonly known as Security Guard. This intense program consists of theory and extensive hands-on lab training to prepare the student for certification exams and employment. Successful graduates will qualify as an entry-level Security Guard or other Personal Security position in the loss prevention industry. Graduates will receive a Certificate of Completion and a Certificate of Completion for Pepper Spray. Upon meeting BSIS licensing requirements (refer to page 26 of this catalog), graduates will be certified by BSIS as a security guard and receive a Guard Card. Also, upon meeting American Red Cross requirements, graduates will receive First Aid/AED certification.

## **PROGRAM OUTLINE**

<b>Module</b>	<b>Course Title</b>
1	Power to Arrest
2	Weapons of Mass Destruction
3	Use of Force
4	Handcuffing
5	Liability and Legal Aspects
6	Public Relations
7	Observation and Documentation
8	Communication and Its Significance
9	American Red Cross First Aid, CPR/AED
10	Access Control

# Private Security Guard with Taser and Firearm

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## Educational Objective

This program prepares students with the basic knowledge of Private Security Guard, more commonly known as Security Guard. This intense program consists of theory and extensive hands-on lab training to prepare the student for certification exams and employment, including comprehensive specialty training for BSIS Baton Permit and Firearms (both classroom and range) and Taser CEW (Conducted Electrical Weapon). Successful graduates will qualify as an entry-level Armed Security Guard or other Personal Security position in the loss prevention industry. Graduates will receive a Certificate of Completion and a Certificate of Completion for Pepper Spray. Upon meeting BSIS licensing requirements (refer to page 26 of this catalog), graduates will be certified by BSIS as an armed security guard and receive a Guard Card, a Baton Permit and Firearms permit, and Taser CEW certification. Also, upon meeting American Red Cross requirements, graduates will receive First Aid/AED certification.

## **PROGRAM OUTLINE**

<b>Module</b>	<b>Course Title</b>
1	Power to Arrest
2	Weapons of Mass Destruction
3	Use of Force
4	Handcuffing
5	Liability and Legal Aspects
6	Public Relations
7	Observation and Documentation
8	Communication and Its Significance
9	American Red Cross First Aid, CPR/AED
10	Access Control
11	Taser
12	Officer Safety
13	Firearms
14	Arrest, Search, and Seizure
15	Baton
16	Chemical Agent

# Satellite Technician

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## Educational Objective

This program prepares students for entry-level positions with satellite installation companies. Students will learn the theory, installation and maintenance of satellite systems, basic electricity, and standards through both class lecture and hands-on training with real-life scenarios. Graduates will receive a Certificate of Completion.

### **PROGRAM OUTLINE**

1	Introduction to Satellite Television
2	Basic System Technology
3	Coaxial Cable and Connectors
4	Site Survey
5	Antenna Installation
6	Grounding and Surge Protection
7	Primary Hookup and System Integration I
8	Primary Hookup and System Integration II
9	High Definition
10	Off Air Antennas
11	Test Equipment and Troubleshooting
12	Customer Education
13	Multiple Satellite Antenna Installation

# Satellite Technician Course Topics

## **Module 1 Introduction to Satellite Television**

Course Objectives  
Regulatory Affairs  
OTARD  
Installer Responsibilities  
Installers Code of Ethics  
Signal Piracy  
Module 1 Review

## **Module 2 Basic System Technology**

DBS Breakdown  
Providers  
Satellites  
Transponders  
Customer Premise Equipment  
LNB's  
Module 2 Review

## **Module 3 Coaxial Cable and Connectors**

Connectors  
Coaxial Cable  
Cable Properties  
Cable Preparation  
Module 3 Review

## **Module 4 Site Survey**

Determining AZ/EL  
Magnetic Azimuth  
Clear Line of Site  
Customer Involvement  
Module 4 Review

## **Module 5 Antenna Installation**

Dish Mounting Recommended Practices  
Safety  
Installation Aspects  
Customer Relations  
Mounting Choices  
Coaxial Cable  
Signal Acquisition  
IRD Connection  
Module 5 Review

## **Module 6 Grounding and Surge Protection**

Grounding/Bonding Materials  
Typical Grounding  
Copper Clad Steel as Bond  
Cable Routing Techniques  
Ground Block  
Module 26 Review

## **Module 7 Primary Hookup & System Integration I**

Objectives  
Connection  
System Integration  
Dual Receiver/Dual TV  
Single IRD/Off-Air  
Basic VCR Connection  
VCR Connection Options  
Other Connections  
Module 7 Review

## **Module 8 Primary Hookup & System Integration II**

Home Theater  
Module 8 Review

## **Module 9 High Definition**

Objectives  
What is High Definition (HD)  
Why HD is Better  
HD Broadcasts  
High Definition IRD  
Module 9 Review

## **Module 10 Off-Air Antennas**

Objectives  
Directional/Bi-Directional/Omni Directional  
Antenna Components  
Off-Air Bands  
Off-Air Broadcasts  
Antenna Web  
Sample Antenna Web Results  
Antennas  
Antennas Installation  
Diplexers  
Off-Air Antennas  
Module 10 Review

## **Module 11 Test Equipment & Troubleshooting**

Objectives  
Multi-Meter  
Troubleshooting Basics  
Troubleshooting  
Module 11 Review

## **Module 12 Customer Education**

Objectives  
Customer Education  
Module 12 Review

# Satellite Technician Course Topics

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## **Module 13 Multiple Satellite Antenna**

### **Installation**

Objectives

Clear Line-Of-Sight Mast Leveling

Multiple Satellite

Typical Elevation Lock

Signal Strength Indications

Dual Meters

Switching Between LNB's

Multi-switches

Dish Pro Plus

Medium Power KU Satellites

Dish Solutions

Module 13 Review

# Alarm and Camera Technician

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## Educational Objective

This program presents an overview of the theory, installation and maintenance of commercial and residential alarm and surveillance systems, network automation basic electricity, Cyber Security standards, SAS Big Data Analysis & application, perimeter / space detection, fire systems, control panels, communications, CCTV, job planning and false alarm prevention. Students will learn the operation, applications, installation and maintenance of commonly used equipment and components, as well as current industry standards for certification preparation and legal requirements. Graduates will receive a Certificate of Completion & may receive third party certification upon passage of independently administered examination(s).

## **PROGRAM OUTLINE**

<b>Module</b>	<b>Course Title</b>
1	Introduction to Security, Surveillance, and Alarm Technician
2	CCTV Cameras
3	CCTV Monitors
4	Video Processing Equipment
5	Analog Video Recorders
6	Digital Video
7	Transmission Media
8	Hardware Installation
9	Networking in CCTV
10	Auxiliary Equipment in CCTV
11	Locking Systems
12	Certifications



# Alarm and Camera Technician

## Course Topics

### **Module 1 Introduction to Security, Surveillance and Alarm Technician**

Introduction  
Safety and Personal Protective Equipment (PPE)  
Tools and Materials  
Customer Service and Professional Communication  
Ladder Handling & Safety

### **Module 2 CCTV cameras**

General Information About Cameras  
Tube Cameras  
CCD Cameras  
Camera Specifications and Their Meanings  
CMOS Technology

### **Module 3 CCTV monitors**

General about monitors; Monitor sizes  
Monitor adjustments; Impedance switch  
Viewing conditions; Gamma  
LCD monitors; Projectors and projection monitors  
Plasma display monitors; Field emission technology displays

### **Module 4 Video processing equipment**

Analog switching equipment  
Switching and processing equipment

### **Module 5 Analog video recorders**

A little bit of history and the basic concept  
The early VCR concepts  
The video home system (VHS) concept  
Super VHS, Y/C, and comb filtering  
Time-lapse VCRs (TL VCRs)

### **Module 6 Digital Video**

Digital video recorders (DVRs)  
The various standards  
The need for compression; Types of compressions; DCT as a basis  
The variety of compression standards in CCTV  
About Pixels and resolution

### **Module 7 Transmission media**

Coaxial cables; Twisted pair video transmission  
Microwave Links

RF wireless (open air) video transmission  
Infrared wireless (open air) video transmissions  
Transmission of images over telephone lines  
Fiber optics; Fiber optics cables  
Installation techniques, Fiber optic link analysis

### **Module 8 Hardware Installation**

Wireless Systems  
Wireless Intercom Systems  
Wireless Smoke Alarms  
Motion Detectors  
Electronics and Security Monitoring

### **Module 9 Networking in CCTV**

The Information Technology era  
Computers and networks; LAN and WAN  
Ethernet; The main Ethernet categories  
Ethernet over coax and UTP cables  
Fiber optics network cabling  
Network concepts and components; Networking Software, Networking Certification  
IP addresses; Domain Name Systems (DNS)  
Networking hardware  
Wireless LAN; Putting a network system together, SAS Big Data Analysis & application

### **Module 10 Auxiliary equipment in CCTV**

Pan and tilt heads; Pan and tilt domes  
Preset positioning P/T heads; PTZ site drivers  
Camera housings; Lighting in CCTV  
Infrared lights; Ground loop correctors  
Lighting protection  
In-line video amplifiers/equalizers  
Video distribution amplifiers (VDAs)

### **Module 11 Locking Systems**

Multipoint Locking System  
Impact Handle & Lock Set  
Smart Key Lock Set Installation  
Garage Door Locking System

### **Module 12 Certifications**

Technical Certification Preparation A+  
Security Certification training /prep

## **Educational Objective**

This program will teach students how to design, build, program, and test all types of networks. Students will learn UTP / Unshielded Twisted Pair copper cabling, including installation practices, reliability, speeds, codes, connectors, patch panels, line map, probe, phone switches, and certification testers. PBX fundamentals, VOIP, and VOIP wiring are also covered. Graduates will receive a Certificate of Completion.

### **PROGRAM OUTLINE**

1	UTP/STP Cabling and Fundamentals
2	Copper Cabling Installation

## **Structured Cabling Technician Course Topics**

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### **Module 1 UTP/STP Cabling and Fundamentals**

Introduction to UTP/STP Cabling,  
Cabling fundamentals and installation  
Understands PBX fundamentals, Identifying switch types, Knowledge of software, Quality / Speed of installations,  
Operation of Test sets  
VOIP wiring, VOIP, Customer Service Skills  
Ladder safety, Tool safety.  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Operation of cable certification equipment  
Specifications and Standards - ANSI/TIA/EIA  
Copper Color Codes, UTP Cable Design  
Cable Applications and Categories  
UTP Cable Installation Techniques  
Wiring 66/110 Blocks, Wall Plates;  
Patch Panels; Jack Orientation,  
Wiring Schemes  
Connectors; RJ 11-45

### **Module 2 Copper Cabling Installation**

Cabling fundamentals and installation  
Cable color codes  
Testing principles (NEXT, RL, Attn, PSNEXT, etc.)  
Terminate RJ-45 connectors  
Terminate 66/110 style cross-connects  
Operation of wire-map test tools  
Operation of cable certification equipment