

ELECTRICAL: LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN

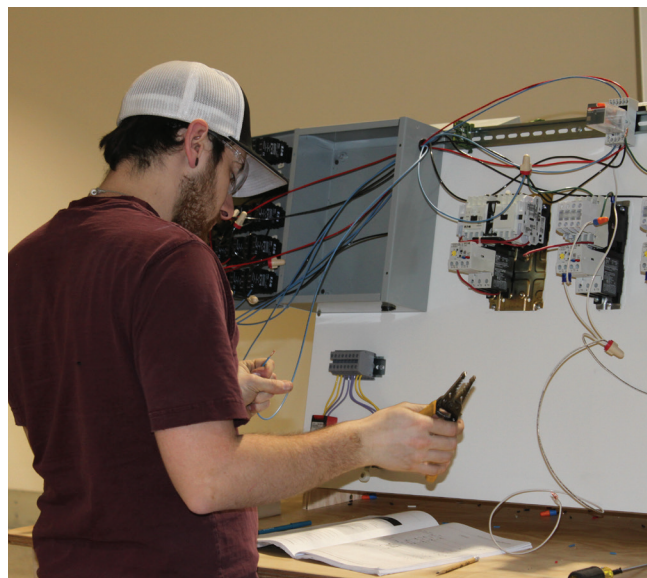
The low energy/sound and communication technician tasks include the installing, servicing and maintaining of systems for sound, audio, video, fire & burglar alarm systems, CCTV security, access control, fiber optics, telephone/data and computer systems integration.

Their work generally focuses on the distribution of low-voltage signals among microprocessor-based devices and controls. The technician's duties generally include installing, connecting, calibrating, and servicing products that move voice, video, audio, and data signals, and products that control mechanical and electrical apparatuses. CITC provides a comprehensive, three year Electrical curriculum that prepares workers for their "06" electrical journeyman exam.

Students will be required to have access to a computer or tablet device with a working camera and microphone. Additionally, all students will need to have access to a reliable internet source when classes begin in the fall. For additional information on the technical requirements for this program please contact the CITC office at (425) 454-2482.

Note: It is crucial that students have the required personal laptop or tablet computer on the 1st day of class. Students who do not have an appropriate laptop or tablet may be dismissed from class and charged with an absence.

CITC strives to offer a variety of class schedules and locations for students to select from. To ensure your place in a class of your choice CITC encourages your registration as soon as registration opens. Registration is on a first come, first serve basis. If the class you have selected is full, you will be transferred into the next available class at the CITC facility nearest your home zip code.




APPRENTICESHIP MONTHLY WORK LOGS


Apprenticeship monthly work logs can be submitted to the apprenticeship department via email: **worklogs@citcwa.org**; fax: **(425) 289-0085** (this fax number does not receive texts); mail to the CITC main office: **1930 116th Ave NE Bellevue, WA 98004**.

NCCERCONNECT 2.0 WITH PEARSON eTEXT ACCESS CARD

NCCERConnect 2.0 is an online training program that enhances student learning with a range of visual, auditory, and interactive elements. Your Pearson eText Access Card will give you access to an eBook version of the textbook included in the package.

<https://registration.mypearson.com>


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LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 1

Minimum: 201 hours per year

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 101: FALL QUARTER

Students will begin with an orientation for the electrical trade, job site safety. Students will review RCW 19.28 and WAC 29-46B; job site safety practices and standards. Course includes OSHA 10 and 1st Aid / CPR training. Students will receive an overview of the electrical trade and will learn; electrical safety; review electrical mathematics; an introduction to electrical circuits, basic electrical theory (Ohms and Kirchhoff's Law), various circuits; will be introduced to electrical drawings; electrical pathways and spaces; hand bending of conduit.

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 102: WINTER QUARTER

Students will be introduced to the 2020 NEC and Washington State rules (RCW/WAC) and will learn; low voltage cabling; DC circuits; AC circuits; and switching devices and timers. Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.

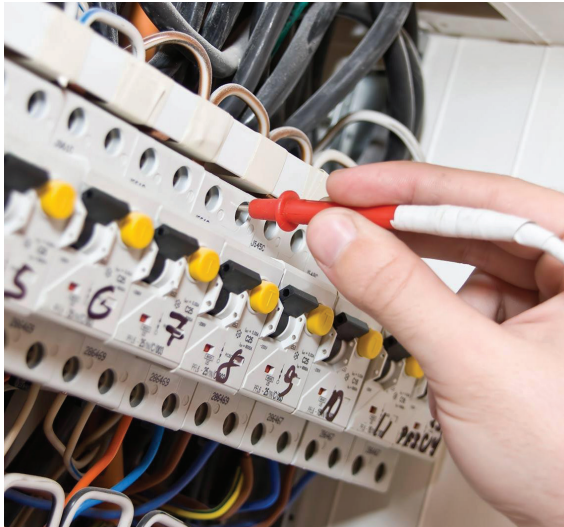
LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 103: SPRING QUARTER

Students will learn about semiconductors and integrated circuits; codes and standards and ana; wire and cable terminations; and electrical test equipment. Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.

BOOKS - LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 1

It is the student's responsibility to have the following book(s) on the first night of class:

REQUIRED TEXT	Soft Cover ISBN	Hard Cover ISBN
NCCER Electrical Level 1 Trainee Guide, 10th Edition	9780136908531	9780136908654
NCCER Electronic Systems Technician Level 3 Trainee Guide, 4th Edition	9780136844518	
2020 National Electric Code (NEC)	9781455922970	
NFPA 72: National Fire Alarm and Signaling Code Handbook	9781455920563	
Washington State Electrical RCW/WACs	Free download available through L&I	



LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 2

Minimum: 201 hours per year

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 201: FALL QUARTER

Students will learn about; power quality and grounding; buses and networks; fiber optics; and wireless communication Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 202: WINTER QUARTER

Students will learn about; rack assemblies; maintenance and repair of low voltage systems; and will begin learning about audio and video systems. Includes an introduction to green building practices. Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 203: SPRING QUARTER

Students will finish learning about audio and video systems; will learn about broadband systems; and telecommunications systems. Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.

BOOKS - LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 2

It is the student's responsibility to have the following book(s) on the first night of class:

REQUIRED TEXT	Soft Cover ISBN	Hard Cover ISBN
NCCER Electrical Level 2 Trainee Guide, 10th Edition	9780136897828	9780136897743
NCCER Electronic Systems Technician Level 4 Trainee Guide, 4th Edition	9780136844150	
2020 National Electric Code (NEC)	978-1-4559-2297-0	
NFPA 72: National Fire Alarm and Signaling Code Handbook	978-1-4559-2056-3	

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 3

Minimum: 201 hours per year

LOW ENERGY SOUND & COMMUNICATION TECHNICIAN 301: FALL QUARTER

This quarter covers the design, installation guidelines and troubleshooting of intrusion detection systems; also the design, installation and troubleshooting of residential and commercial fire alarms. Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 302: WINTER QUARTER

Students will study the system requirements, installation requirements and code specifications of nurse call and signaling systems found in health care facilities; review the installation and configuration, testing and troubleshooting of closed circuit TV systems in various sized facilities; learn about the installation practices and electrical codes related to various access control systems. Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN 303: SPRING QUARTER

Students will learn about the design and installation best practices for building networks in smart houses and businesses; participate in a comprehensive review of all related NEC code and associated Oregon and Washington state rules in preparation for licensing exams. Lab date schedule will be provided at the beginning of the quarter. Scheduled dates may be adjusted at instructor's discretion.



All first year classes include
OSHA 10 for Construction



BOOKS - LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 3

It is the student's responsibility to have the following book(s) on the first night of class:

REQUIRED TEXT	Soft Cover ISBN	Hard Cover ISBN
NCCER Electrical Level 1 Trainee Guide, 10th Edition	9780136908531	9780136908654
NCCER Electrical Level 2 Trainee Guide, 10th Edition	9780136897828	9780136897743
NCCER Electronic Systems Technician Level 3 Trainee Guide, 4th Edition	9780136844518	
NCCER Electronic Systems Technician Level 4 Trainee Guide, 4th Edition	9780136844150	
2020 National Electric Code (NEC)	978-1-4559-2297-0	
NFPA 72: National Fire Alarm and Signaling Code Handbook	978-1-4559-2056-3	

Low Energy/Sound & Communication Technician Instructors

As a part of our dedication and commitment to training, we take pride in delivering top quality instructors. CITC's instructors are highly skilled journey-level workers who bring their knowledge and years of trade experience into the classroom. All CITC instructors have been certified certification by the National Center for Construction Education and Research.

Lloyd Hawes started in the trade in 1989. Became CITC Faculty member in 2020.

Tom Brown started in the trade in 1979. Owner operator of a limited energy / sound & communication business since 1989. EL-06 Master Electrician. Joined the CITC faculty in 2019.

Mike Patterson has over 30 years in the electrical industry. Became CITC Faculty member in 2022

Low Energy/Sound & Communication Technician Schedule & Tuition

Eastern Washington Region

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 1								
Spokane	101	Fall	13 weeks	87 hours	Fri/Sat	8a-5p	September 9 – December 3 + Assignments	Tuition: \$1,325
Spokane	102	Wtr	8 weeks	63 hours	Fri/Sat	8a-5p	January 6 – March 4 + Assignments	Tuition: \$1,325
Spokane	103	Spr	9 weeks	51 hours	Fri/Sat	8a-5p	March 31 – June 3 + Assignments	Tuition: \$1,325

Western Washington Region

LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 1								
Marysville	101	Fall	13 weeks	87 hours	Fri/Sat	8a-5p	September 9 – December 3 + Assignments	Tuition: \$1,750
Marysville	102	Wtr	8 weeks	63 hours	Fri/Sat	8a-5p	January 6 – March 4 + Assignments	Tuition: \$1,750
Marysville	103	Spr	9 weeks	51 hours	Fri/Sat	8a-5p	April 7 – June 3 + Assignments	Tuition: \$1,750
LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 2								
Marysville	201	Fall	13 weeks	87 hours	Fri/Sat	8a-5p	September 9 – December 3 + Assignments	Tuition: \$1,750
Marysville	202	Wtr	8 weeks	63 hours	Fri/Sat	8a-5p	January 6 – March 4 + Assignments	Tuition: \$1,750
Marysville	203	Spr	9 weeks	51 hours	Fri/Sat	8a-5p	April 7 – June 3 + Assignments	Tuition: \$1,750
LOW ENERGY/SOUND & COMMUNICATION TECHNICIAN LEVEL 3								
Marysville	301	Fall	13 weeks	87 hours	Fri/Sat	8a-5p	September 9 – December 10 + Assignments	Tuition: \$1,750
Marysville	302	Wtr	8 weeks	63 hours	Fri/Sat	8a-5p	January 6 – March 4 + Assignments	Tuition: \$1,750
Marysville	303	Spr	9 weeks	51 hours	Fri/Sat	8a-5p	April 7 – June 3 + Assignments	Tuition: \$1,750