

AUDIO VISUAL/INSTRUCTIONAL TECHNOLOGY INTEGRATION TECHNICIAN - LEAD**DEFINITION**

Under direction, leads and/or performs advanced specialized technical duties pertaining to the installation, configuration, and troubleshooting of audio-visual (AV) and instructional equipment, systems, and related cabling, performs diagnostic tests to verify function and/or troubleshoot problems. Provides guidance and training to subordinates and end users regarding system operation; and performs related work as assigned.

DISTINGUISHING CHARACTERISTICS

This is the most advanced technical level class in the AV/Instructional Technology Integration Series within the Yosemite Community College District (YCCD). Incumbents in this class perform the most advanced technical duties related to the installation, configuration, and troubleshooting of AV and instructional equipment, systems, and related cabling. Incumbents work with outside contractors, YCCD IT and Facilities staff to complete installations. Incumbents utilize specialized knowledge of AV, local area network (LAN), and instructional technology to make decisions and complete assignments. This class may be distinguished from the lower-level class of Audio Visual-Instructional Technology Integration Technician because incumbents in that class perform complex duties related to the installation, configuration, and troubleshooting of AV and instructional equipment, systems, and related cabling, but have minimal responsibilities related to system planning, coordinating the work of outside contractors and YCCD IT and Facilities staff, and do not serve as leads.

SUPERVISION RECEIVED AND EXERCISED

Incumbents in this class work under the direction of a manager or senior manager, receiving occasional supervision while working toward a definite objective that requires use of a wide range of procedures. Incumbents plan and/or determine specific procedures or equipment required to meet assigned objectives and solve non-routine problems, referring only unusual matters to a supervisor. An incumbent in this class does not directly supervise other full-time employees, but serves as project management lead; assesses needs; evaluates design documents and bills of materials; performs project execution, monitoring and control, and project closure; assigns, directs and/or monitors the work of subordinate full time, part time, and/or student employees on a regular, project or assignment basis.

ESSENTIAL DUTIES

- Provides lead direction, schedules, trains, and monitors the work of Audio Visual-Instructional Technology Integration Technicians, Multimedia Specialists, Multimedia Technicians, and short-term contract employees; determines day-to-day priorities.
- Evaluate multimedia and networking conditions and provide consultation on the purchasing and installation of computer lab systems, telecommunications, closed-circuit video distribution, teleconferencing systems, operating systems, software applications, broadcast and computer hardware, and networking devices.
- Conduct in-service trainings for instructors, students, and employees on the operation and use of equipment and system functions in addition to troubleshooting and diagnosing equipment and network problems involving District multimedia, and telecommunications systems which coincides with configuring, aligning, testing, and calibrating multimedia equipment using signal generators and test devices.

- Advanced troubleshooting and resolution of issues with audio, video, and Extron switching and control devices and systems.
- Advanced troubleshooting and resolution of issues with audio, video, and Extron switching and control devices and systems.
- Provide lead direction employees for colleagues and contract employees on installation of configuration of wireless and wired networked devices.
- Repair and maintain projectors, speakers, microphones, mixers, amplifiers, wireless transmitters, and other multimedia devices using hand tools, meters, soldering irons and signal generators.
- Provide consultation on cyber security protection to prevent intruders from tapping into online campus meetings and video sessions which can take command of system components, including cameras, microphones, and speakers which can breach confidential District information.
- Provide lead direction for colleagues and contract employees on installation, termination, and testing of cabling forms related to AV and instructional technology, including shielded twisted-pair cable, in accordance with industry best practices.
- Provide lead direction for colleagues and contract on installation and configuration of digital and IP cameras connected to the local area network.
- Providing lead direction and scheduling for colleagues and contract employees on installation of projectors, projection screens, flat panel displays, speakers, microphones, cameras, and other AV and instructional technology.
- Solicit quotes from off-campus vendors to provide recommendations on selection and coordinate the repair of equipment and consult with manufactures to resolve equipment malfunctions.
- Installs, terminates, and tests all forms of cabling related to AV and instructional technology, including shielded twisted-pair cable, in accordance with industry best practices
- Installs projectors, projection screens, flat panel displays, speakers, microphones, cameras, and other AV and instructional technology
- Installs and assists with configuration of wireless and wired networked devices.
- Installs and assists with configuration of digital and IP cameras.
- Installs and assists with configuration of telepresence, lecture capture and video systems and endpoints.
- Reads and interprets single-line and schematic drawings and architectural blueprints
- Performs and interprets point-to-point and end-to-end functionality tests of systems
- Resolves problems with communication between AV devices on the LAN
- Installs equipment racks
- Installs equipment within racks
- Performs cable management within and between racks, workstations, IDFs, etc.
- Fabricates mounting and support hardware
- Troubleshoots and resolves issues with audio, video, switching and control devices and systems
- Coordinates work with other District departments as necessary

TYPICAL WORKING CONDITIONS

- Work is generally performed indoors, but may require working in confined, unconditioned spaces such as attics and crawlspaces. Some exposure to varied weather conditions may be required.

MINIMUM QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The Education/Experience, Knowledge and Ability requirements are representative of essential duties. Reasonable accommodation may be made to enable individuals with disabilities to perform the essential functions of the position.

Education and Experience:

Pattern I

- Experience: One-year equivalent to an Audio-Visual Instructional Technology Integration Technician at YCCD.

OR Pattern II

- Education: Possession of an associate's degree from an accredited college or university, with major course work in computer electronics or closely related field.
- Experience: Two years performing technical level AV installation work.

Knowledge of:

- Principles and practices of supervision and leadership.
- Advanced methods, procedures, and techniques necessary for the installation, configuration, troubleshooting, and repair of AV and instructional technology equipment, systems, and related cabling
- Advanced methods, procedures, and techniques necessary for the installation, configuration, troubleshooting and repair of RS-232, IR, and IP-based control systems. *(The District currently uses Extron control systems)*
- Operational characteristics of current and legacy AV, instructional, computer, and control systems
- Potential operational impacts of EDID and HDCP and methods of mitigating those impacts
- Advanced methods, procedures, and techniques necessary for distributing HDMI, USB, and other signal types
- Concrete, steel, and wood construction methods and materials
- Slotted channel and accessories (i.e Unistrut)
- Equipment power requirements
- Equipment cooling requirements

Ability to:

- Lead and direct the work of subordinate staff.
- Lead, direct and perform the most difficult audio-visual or multi-media equipment installations and repairs
- Establish priorities and follow up on work assignments in a timely manner.
- Read and interpret blueprints, single-line, and schematic drawings
- Effectively communicate with employees, end-users, students and colleagues
- Use hand and power tools in a safe and efficient manner
- Work and think independently to meet deadlines
- Maintain a safe on-site work environment
- Applying knowledge of basic signal flow for audio, video and control signals

Licenses and Certificates:

- Depending on assignment, a valid license to drive in California may be required.

Desirable Certifications:

- AVIXA CTS and CTS-I certifications
- AVIXA Microcredentials in Pulling cable, Terminating cables, and Mounting equipment
- OSHA 10-hour Construction Course
- Extron AV Associate Certification
- Comp TIA A+
- Comp TIA Network+
- Comp TIA Security+

Physical and Mental Standards:

- **Mobility:** ability to ascend and descend ladders, stairs, scaffolding and ramps; walk or stand for extended periods; stand and reach with arms, sit, stoop, kneel, and crouch.
- **Dexterity:** must have manual dexterity to use and operate hand and power tools
- **Lifting:** frequently lift, carry, push, pull or otherwise move objects up to 25 pounds; occasionally lift objects up to 50 pounds
- **Visual requirements:** close vision sufficient to read nomenclature on extremely small components; color vision sufficient to identify color-coded conductors and components; ability to read files, documents, and computer screens; distance vision sufficient to adjust projector fine focus; ability to adjust focus frequently
- **Hearing/Talking:** ability to hear normal speech, speak and hear in person and on the telephone; ability to identify noise, distortion, and frequency response deficiencies in sound systems
- **Emotional/Psychological Factors:** ability to make decisions and concentrate; frequent contact with others; frequent deadlines and time-limited assignments.

Class Adopted: August 2023

Class Amended: