Miami Dade College

Course Description

EEV0165 | Low Voltage Technician 4 | 5.00 credits

This course is an overview of audio, video, broadband, media management, telecommunication systems, and residential/commercial building networks.

Course Competencies

Competency 1: The student will be able to install and configure telephone and networking devices by:

1. Setting up basic telephone devices such as handsets and intercoms in order to establish basic voice communication
2. Setting up basic data network devices such as switches and routers in order to facilitate basic data communication

Competency 2: The student will be able to install surveillance and security devices by:

1. Installing basic security and surveillance devices (e.g. cameras, sensors, central control panels, keypads, etc.) in order to provide basic monitoring of secured areas
2. Configuring basic security and surveillance devices to ensure proper working order
3. Configuring basic security and surveillance devices to include on-site storage devices and/or cloud-based platforms

Competency 3: The student will be able to install, connect, configure and test off-air/cable/satellite- related devices by:

1. Installing terrestrial antenna, cable, and satellite TV systems, distribution, and equipment to ensure signal reception
2. Configuring terrestrial antenna, cable, and satellite TV systems, distribution, and equipment in order to provide proper reception of TV signals

Competency 4: The student will be able to connect equipment related to integrated system control applications and understand basic control programming concepts by:

1. Defining control system protocols
2. Connecting common control devices such as remotes, keypads, volume controls, touch screens, relays, and control processors/communication bridging devices
3. Explaining the differences between control and automation
4. Describing the three common types of user interfaces, Tangible (TUIs), Graphic (GUIs), and Natural (NUIs).
5. Explaining the concept of a macro command

Competency 5: The student will be able to verify and test system to confirm proper operation and compliance with design specifications by:

1. Reviewing the installed system in order to confirm compliance with design specifications
2. Verifying system performance by testing device and system functionality in order to confirm proper operation
3. Troubleshooting installation and sub-station issues

Competency 6: The student will be able to explain the fundamentals of common residential sub- systems by:

1. Describing the fundamentals of automated lighting components and operation
2. Describing the fundamentals of motorized devices such as shades, lifts, mounts, etc.
3. Describing the fundamentals of energy monitoring and management

Learning Outcomes:

- Use quantitative analytical skills to evaluate and process numerical data
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively