

ITSC 127: CATV/DAS

Foothill College Course Outline of Record

Heading	Value
Units:	0.5
Hours:	7 lecture, 5 laboratory per quarter (12 total per quarter)
Prerequisite:	Completion of recognized sound and communication apprenticeship or equivalent and recent employment as an installer/technician in the sound and communication industry.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	None
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Description

Covers the basic structure, cabling, tools, connectors and terminations, hardware, headend equipment and testing of a Closed Antenna Television and Distributed Antenna Systems (CATV/DAS) system.

Course Objectives

The student will be able to:

- Identify coaxial cable types
- Describe the effects of attenuation over coaxial cable
- Identify tools used in CATV/DAS
- Identify types of connectors
- Describe the installation steps to install a RG6 compression connector
- Describe the installation steps to install a Helix connector
- Identify CATV/DAS headend equipment

Course Content

- CATV - Introduction (Lec)
- CATV - History (Lec)
 - CRT
 - Antennas
- CATV - Basic Structure (Lec)
 - Provider
 - Backbone
 - Distribution
- CATV - Cabling (Lec and Lab)
 - Series 59
 - Series 6
 - Series 11
 - Hardline
 - Impedance
 - Attenuation
- CATV - Tools (Lec and Lab)
 - Lopper cutter
 - Crimpers
 - Compression crimpers
 - Coax strippers

- Coring tool
- CATV - Connectors and Termination (Lab)
 - Screw-on
 - Crimp
 - Compression
- CATV - Distribution Hardware (Lec)
 - Amplifiers
 - Splitters
 - Directional taps
 - Antennas
- CATV - Headend Equipment (Lec)
 - Demodulators
 - Modulators
 - Combiners
- CATV - Testing (Lec and Lab)
 - Loop testing
 - Balancing
 - Field strength meter
 - TV
- CATV - Hands-on Lab (Lab)
 - Install RF connector
 - Install cabling to TVs
 - Test and commission
- DAS - History (Lec)
 - Relation to CATV
 - Coaxial systems
- DAS - Types and Signal Sources (Lec)
 - Signal source
 - Distributed system
- DAS - Installation (Lec and Lab)
 - Cable types
 - Connectors
- DAS - Commissioning and Testing (Lec and Lab)
 - Testing equipment
 - Certification

Lab Content

- Work individually and in teams with basic tools of the trade, test instruments and tool safety.
- Included will be the installation of sound and/or communication devices/coaxial cable.
- Equipment safety and safe handling practices are reviewed and applied.

Special Facilities and/or Equipment

- CATV/DAS cabling, connectors, special installation tools, and testing equipment.
- When taught via Foothill Global Access, on-going access to email software and hardware; email address.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

- Results of assessments
- Results of quizzes and tests
- Discussion participation

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

- A. Lecture
- B. Group discussion
- C. Demonstration
- D. Lab

Representative Text(s) and Other Materials

None

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

A. Reading assignments:

1. Read discussion titled "CATV - Antennas"; follow directions and complete discussion

B. Writing assignments:

1. Complete the discussion topic "CATV - Antennas" by writing down your results and include and whether you would install an antenna or not and why

Discipline(s)

Telecommunication Technology