

Electrical Level 3

Load Calculations — Branch and Feeder Circuits (Module ID 26301-20)

Explains how to calculate branch circuit and feeder loads for residential and commercial applications. Covers various derating factors.

Conductor Selection and Calculations (Module ID 26302-20)

Explains how to make conductor calculations. Covers other factors involved in conductor selection, including insulation types, current-carrying capacity, temperature ratings, and voltage drop.

Practical Applications of Lighting (Module ID 26303-20)

Describes various luminaires and the types of luminaires suited for various applications. Covers dimming, lighting controls, and energy management systems.

Hazardous Locations (Module ID 26304-20)

Presents the NEC® requirements for equipment installed in hazardous locations.

Overcurrent Protection (Module ID 26305-20)

Explains how to size and select circuit breakers and fuses for various applications. Covers short circuit calculations and troubleshooting.

Distribution Equipment (Module ID 26306-20)

Discusses switchboards and switchgear, including installation, grounding, and maintenance requirements. Covers ground fault relay testing.

Transformers (Module ID 26307-20)

Describes the construction, operation, and applications of various transformers. Covers transformer connections and grounding requirements.

Commercial Electrical Services (Module ID 26308-20)

Covers the components, installation considerations, and NEC® requirements for commercial services.

Motor Calculations (Module ID 26309-20)

Covers the calculations required to size the conductors and overcurrent protection required for motor applications.

Voice, Data, & Video (Module ID 26310-20)

Covers the installation, termination, and testing of these systems.

Motor Controls (Module ID 26311-20)

Provides information on selecting, sizing, and installing motor controllers, as well as control circuit pilot devices and basic relay logic.