

Course Title

RV-11544 - 2020 NEC® Changes: Conductors, Wiring Methods, and Enclosures

Contact Hours: 1

This interactive online course covers the changes in Articles 300, 310, 311, 312, and 314 of the National Electrical Code®. Article 300 contains general requirements for wiring methods. Article 310 covers conductors rated 2,000V and less. New Article 311 covers conductors rated more than 2,000V. Article 312 covers cabinets, cutout boxes, and meter socket enclosures. Article 314 covers outlet, device, pull, and junction boxes; conduit bodies; fittings; and handhole enclosures. Notable changes include clarifying which fittings may be concealed, harmonizing building code and electrical code rules for stair enclosures, a complete rewrite of Article 310, a new article 311, specific rules for cable trays and enclosures used together, and major changes for boxes in the ceilings of dwelling units.

Course Objectives:

By the end of this course, you will be able to:

- Recall the rules for tapping parallel conductors
- Identify which fittings are allowed for protecting conductors
- Recall the rules for sealing raceways exposed to different temperatures
- Identify which raceway fittings are allowed, and which types can be concealed
- State the requirements for penetrating a stair enclosure
- Explain why Article 310 was rewritten and explain the new requirements for Article 311
- List the requirements for conductors entering enclosures from a cable tray
- Discuss the rules for equipment in panelboard cabinets
- Identify the new rules for box fill
- Explain the rules for conduit pendants
- Determine when ceiling fan boxes are required in dwelling units

Content Outline

Introduction Course Overview	(2 minutes)
Article 300 General Requirements for Wiring Methods	(20 minutes)
Article 310 Conductors for General Wiring	(17 minutes)
Article 311 Medium Voltage Conductors and Cables	(1 minute)
Article 312 Cabinets, Cutout Boxes, and meter Socket Enclosures	(6 minutes)
Article 314 Outlet, Device, Pull, and Junction Boxes	(11 minutes)

Conduit Bodies
Fittings
Handhole Enclosures

Conclusion

(3 minutes)

Summary and Implications

1. List of reference and source materials/bibliography

All material necessary to complete the course is included in the course. A subject matter expert using his or her own personal knowledge writes the course. Students are not directed to additional material as a requirement for course completion, only as added information for personal interest.

2. Instructor Information

Ryan Jackson – Resume Attached

3. Totals hours of Instruction

1 Hour(s) – this course is online and available 365/24/7 to anyone with internet access

4. Certificate of completion

sample is attached

5. Proof of compliance with interactive distance learning requirements

- a. Courses are being developed with interactivity as a key component in its development. RedVector's 'rule of thumb' is to insert an activity every 3 to 5 minutes or 500 to 800 words of text. We offer a variety of activities through the coursework to keep the user involved and requiring knowledge of the course materials being reviewed in order to move forwards.
- b. Users sign into an account with a unique User Name and Password. We request that a user agree to an affidavit stating that they are the owner of the account before proceeding to the exam. Course completion is measured by passing the exam with a minimum score of 75%.
- c. FL Contractors are notified at the beginning of the course that they are required to spend 50 minutes per credit hour in the course in order to receive an accreditation certificate. The LMS will not allow a certificate to be issued or reflect course completion until the time requirement is not by the user.
- d. By one click of the button on each screen of the coursework, the user is given the option to obtain information in several ways. We have a FAQ page, direct email request to Client Support or they may call through a Toll Free number. Our Client Support Team is available from 8 am to

6 pm, Monday thru Friday. If there is a general question, RedVector consults with several Subject Matter Experts that respond to questions in a timely manner. If the question is more specific requiring a direct response from the course author, communication is made with the author to provide the user a response.

- e. There is a statement required to be agreed upon by the User confirming their identity before and after taking the test.
- f. Each account is established with a unique user name and password in order to access. If a user is taking a longer than normal time to review a section, they will receive a pop-up and have 90 seconds to respond or their session will time out requiring the user to sign into the site again if they wish to continue the coursework.