

## **RLEST-192: UDC Construction for Inspectors**

### Course Description:

This course is designed to prepare learners for credentialing examinations in the areas of inspection of one and two family dwellings for both construction and the installation of heating, ventilating, and air conditioning equipment.

Total Credits: 3.00

### Course Competencies

- 1. Articulate the general requirements for the credentialing of those involved in the construction industry.**
- 2. Articulate the aspects of a one and two family dwelling a certified inspector may conduct inspection of.**
- 3. Acknowledge the purpose for establishment of the uniform dwelling code and the scope of what structures are covered by the code.**
- 4. Determine the jurisdiction that has authority over enforcement of the code.**
- 5. Determine the rationale for definitions included as part of the code.**
- 6. Acknowledge the approval and inspection of requirements for one and two family dwellings.**
- 7. Appreciate the justification for variances, appeals, violations, and penalties through application of the code.**
- 8. Identify the additional requirements of the code through the adoption of standards.**
- 9. Articulate the scope of structures subject to the provisions of the code.**
- 10. Appreciate the design criteria of the code and how it serves to protect the health, safety, and welfare of the public.**
- 11. Be aware an excavation on the stability of adjacent structures and the change in responsibility based on the depth.**
- 12. Anticipate the soil type influence on the structures footings.**
- 13. Analyze the conditions of soil types, lateral loads, and unbalance fill heights which influence the design requirements for foundations including steel reinforcement.**
- 14. Analyze the conditions of the size, spacing, and span of floor system structural members and select the appropriate species and grade of lumber to comply with the structural strength requirement of the conditions and to limit deflection of the floor. Also identify the requirements and methods for connection of the floor system to the foundation.**
- 15. Analyze the number of stories, wall heights, and building widths to determine the size, spacing, grade and species of studs to construct the walls. Also determine the braced wall lines and percentage and type of braced wall panels to required to resist wind loading.**
- 16. Analyze the size, spacing, and span of roof and ceiling systems and select the appropriate species and grade of lumber to comply with the structural strength requirement of the conditions and to limit deflection of the roof or ceiling system.**

Also determine the connection requirements to resist the uplift forces caused by wind.

17. Determine the clearances from combustible materials and the design requirements for masonry fireplaces and factory built fireplaces.
18. Determine the design requirements for construction in floodplains.
19. Identify the installation requirements of manufactured homes
20. Determine the scope and application of the energy performance standards as applied to one and two family dwellings.
21. Determine the rationale for definitions included as part of the code.
22. Analyze insulating materials and installation requirements.
23. Adhere to placement of insulation as related to the dwelling thermal envelope.
24. Determine the type, size and efficiency of the heating system necessary to maintain the indoor design temperature based on outdoor design conditions.
25. Confirm that the code provisions are allowing for a simulated performance alternative.
26. Determine the scope and application of the heating, ventilating, and air conditioning equipment installation standards as applied to one and two family dwellings.
27. Analyze the design requirements for heating, ventilating, and air conditioning systems.
28. Acquaint self with the various types of heating equipment.
29. Acquaint self self with the various types of delivery systems used with heating, ventilating, and air conditioning.
30. Determine the requirements for chimneys and vents used with heating systems.
31. Analyze the fuel supply systems for various equipment installations.
32. Determine the proper equipment location and operation requirements.