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## SECTION HEADING

### CRPT 1155: Building Science

#### Description

Building Science will teach students about the house as a system and will include advanced topics in building shell components, air sealing, insulation, air quality and health and safety.

#### Credits

2

#### Prerequisite

None

#### Corequisite

None

#### Topics to be Covered

1. House as a system
2. Building shell components
3. Thermal envelope
4. Health and safety
5. Testing the building shell
6. Air sealing and insulation
7. Total building performance
8. Evaluating energy performance, comfort, safety and structural integrity of homes
9. Conducting a blower door test

#### Learning Outcomes

1. Demonstrate an understanding of the principles of energy and building science.
2. Demonstrate an understanding of industry terminology.
3. Identify building construction types.
4. Identify building shell weak points.
5. Perform a blower door test.
6. Identify cost effective energy retrofits.
7. Conduct a residential home energy audit.
8. Identify possible health and safety issues during an energy audit.

#### Credit Details

Lecture: 1

Lab: 1

OJT: 0

MnTC Goal Area(s): None