SBA

SMART BUILDINGS ACADEMY

ACCREDITED IACET PROVIDER

HVAC 101 Mini Course Guided Notes

Lesson 1: Terminal Units - Parts and Pieces

In this lesson, keep note of the following **Key Points:**

- What are terminal units and what do they do?
- Variable Air Volume (VAV) boxes vs Fan Coil Units

Terminal units are airside mechanical devices that are found where? They serve as a connection point between the main HVAC system and the _____.

A VAV box regulates the airflow to a particular zone or room by adjusting the _____ based on the temperature and airflow requirements.

Lesson 1: Terminal Units - Parts and Pieces

VAV boxes can be built with reheats in them. These reheats can be _____ or _____.

A fan powered VAV box is used to deliver an extra boost of CFM to building spaces, especially in situations with _____.

Fan coil units are like mini air handlers that provide zone control, and they have _____ and _____ for both heating and cooling.

BAS200: Control Sequence Fundamentals Course

BAS200: Control Sequence Fundamentals provides a comprehensive study of HVAC control sequences. This course combines theory with more than a decade's experience working on some of the world's most complex BAS projects. Students will learn the why behind BAS control strategies and will leave with a solid understanding of "how" systems work.

- Length: 19h16m
- CEUs: 1.9

BAS200: Control Sequence Fundamentals

Course Objectives:

- Master how HVAC systems function and how to control them
- Demonstrate knowledge of BAS controls theory in HVAC systems
- Develop the ability to make design and programming decisions based on system requirements

Some Key Topics:

- Learn what control sequences are and how control sequences are structured.
- Master the step-by-step process of interpreting control sequences.
- Create the foundational system knowledge that allows the student to understand the relationship between space control and upstream systems.
- Discover the different ways of controlling and conditioning the air stream along with the interrelationships between air systems and water systems.
- Learn what hot water systems are, how they are controlled, and how other systems interact with and influence hot water systems.
- Gain an awareness of how and why chilled water systems are used, the methods and processes that control chilled water systems, and the limitations of chilled water systems.
- Learn what the different strategies for pumping and piping are and how these strategies effect the control and efficiency of water based heating and cooling.
- Learn how unitary systems are controlled and how the effect existing building systems.
- Learn what a 2-pipe system is and how to properly control building systems that are supplied by 2-pipe systems.

https://www.smartbuildingsacademy.com/control-sequence-fundamentals