

Trades Trainee Program

Trades Trainee Program

- Objectives

- Provide a pathway into the trades
 - Current employees
 - Community members
- Recruit and retain employees who become contributing members to the Northeastern University
- Increase the diversity of the trades
- Develop the next generation of trades people who will maintain the built environment at Northeastern
- Support the University's mission, vision and values
- Level I → Level II → Level III



Common Skillsets I, II, III

- A high school diploma or equivalent, or the math and language skill set equivalent to that of a high school graduate.
- Ability to work effectively, either independently or in a team environment in both routine and emergency situations.
- Possess trade-related math skills appropriate for this level of work; be able to read, write, and understand written and spoken English.
- Able to communicate with all levels of University staff as well as external vendors and inspectors.



Trades Trainee I

- Completion of or enrollment in formal trade school training in at least one of the following: HVAC/R, Stationary Engineering, Electric, Plumbing, Electronics Technician or related discipline; or have at least two years of relevant on-the-job experience in the trade or a combination of both.
- Possess trade-related math skills appropriate for this level of work; be able to read, write, and understand written and spoken English.
- Focus on the candidate's attitude and ability to learn.
- Paired with mentor (Trades Level III)



Trades Trainee II

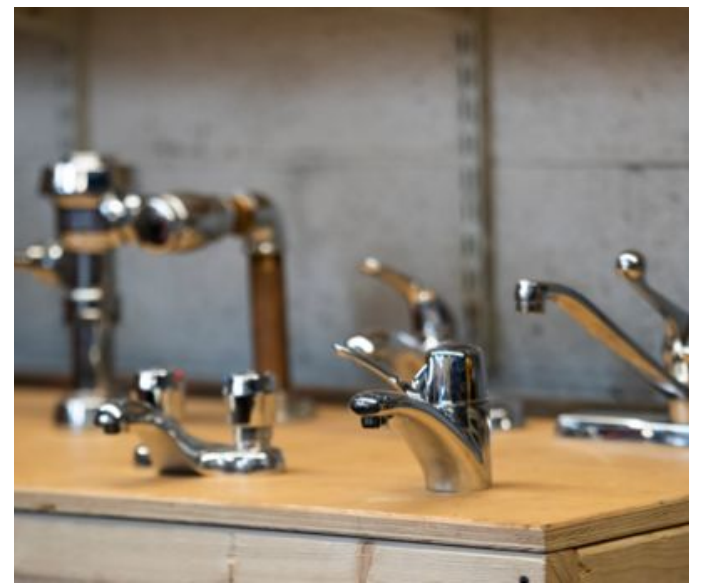
- Candidates must have skills and knowledge normally associated with completion of a formal on-the-job training program and/or at least four years of experience in the trade or related.
- Working knowledge of computer and microcomputer hardware and software used in the applicable trade or formal training and experience.
- Use of trade tools and testing and measuring devices to troubleshoot a wide range of mechanical and controls problems
- Typically achieved in two to three years after starting as Level I



Trades Level III

- Skills and knowledge normally associated with completion of a formal on-the-job training program and/or at least five years of experience in the trade or related discipline.
- Massachusetts Technician License appropriate for trade.
- Use of trade tools and testing and measuring devices to troubleshoot a wide range of problems.
- Ability to read blueprints, sketches, O&M Manuals, and diagrams; interpret oral instructions to install and troubleshoot required work.





Producer of “State of the Art” BAS Technicians

ASSOCIATED DEGREE PROGRAM

- Curriculum inserted into existing Assoc. Degree Engineering program
- Submitted to Nov. CC Meeting
- First class approved by CC in March
- Remainder of classes Curriculum Committee mandated that classes be transferrable to a 4 year MASS State degree program
- Chicken or the Egg problem
- Only 2, 4-year BAS programs in the country (Ferris State, PCT)
- Working with Administration to resolve

STAND ALONE CERTIFICATION PROGRAM

1. Certified Building Automation Technician Associate

Building Automation Fundamentals	30 hrs	3 hrs/wk
Intro BAS Controllers/Software (LAB)	21 hrs	3 full days
BAS Control Devices & Applications	30 hrs	3 hrs/wk
BAS Networking	30 hrs	3 hrs/wk
Total	111 hrs	

2. Certified Building Automation Technician Practitioner

BAS Electrical	30 hrs	3 hrs/wk
BAS HVAC/R and Controls	30 hrs	3 hrs/wk
BAS Logic and Programming (LAB)	21 hrs	3 full days
BAS Systems Design and Installation	30 hrs	3 hrs/wk
Total	111 hrs	

3. Certified Building Automation Technician (1+2+3)

BAS Integration	75 hrs	8 full days
BAS Internship		3 months

PHASE 1

Cross platform compatibility

DESIGN LOGIC [meta certification]



LINKED to "BEST IN CLASS" Industry Standards

Modular, stackable, aligned with industry and connected to Assoc. Degree Program

State-of-the-art LAB

Purpose

Provide Engineering Curriculum students with the ability to learn to Variable Refrigerant (VR) systems. Based on the 2008 ASHRAE 90.1-2008, this series of Variable Refrigerant (VR) Mini Split Type Heat Pump that compare why VR and other techniques to provide the heat and air conditioning and cooling.

Description

The H-VRST-1 Variable Refrigerant System Trainer consists of a VR heat pump with multiple indoor units (1 cooling, 1 heating, 1 self-heating unit and 1 fan-heating unit). The system is built on a 17" x 19" x 43" platform and includes all the components, controls, and safety to provide maximum accessibility to the student. All equipment and hardware is of commercial quality and is typical of that encountered in the field by the service technician.



H-VRST-1
Variable Refrigerant System Trainer

H-RST-21

Mini Split-Type Heat Pump Trainer



MODEL H-RST-21
Mini Split-Type Heat Pump Trainer



- ELEC. DIST. & ENERGY MONITORING TRAINER
- VAV AIR-HANDLING UNIT TRAINER
- PARALLEL-FAN TERMINAL TRAINER
- VAV TERMINAL TRAINER
- TRANSFORMER
- ECONOMIZER UNIT TRAINER
- DC POWER & CIRCUIT TRAINER
- BUILDING CONTROLLER TRAINER
- SB CONTROLLERS & SEQUENCES TRAINER
- GRAPHICAL-USER TRAINER
- AIR DISTRIBUTION/HEAT TRANSFER TRAINER
- ALARM TRAINER
- HYDRONICS TRAINER



Partnership with Madison Park and Roxbury CC Results

- Internships
 - Auto Shop – 2
 - BAS - 1
 - Electric Shop-2
 - HVAC Shop - 1
- Building Operator Certificate Graduates
 - BAS - 1

