



Associate in Applied Science Degree

Building Construction Management

This program prepares you for advancement to field supervisor, estimator, or field superintendent. You will reinforce your experience with the technical and theoretical knowledge essential to success in the field of building construction management. Graduates may continue their education at Wentworth. Students are prepared to enter the Bachelor degree programs in Building Construction Management or Project Management.

Program Requirements: Graduates of the NE Carpenters Union Apprenticeship Training program will receive **18 credits** in the following. Students who have not completed the Carpenters Union Apprenticeship Training Program must demonstrate competency in these specific areas to earn the 18 credits. Students who are unable to demonstrate competency in any of these areas will be required to take the appropriate coursework through Wentworth at their Boston Campus.

- Contracts and Codes (4 credits)
- Construction Methods (4 credits)
- Construction Estimating* (4 credits)
- Intro to Computers* (1 credit)
- Basic Building Services (4 credits)
- Construction Surveying (4 credits)
- Labor History (2 credits)

Application Requirements:

- Online application
- Official high school or GED transcript
- Official transcript(s) from any college(s) you have attended
- Copy of Union Membership card
- Copy of Certificate of Completion of Apprenticeship Training
- Online math placement test, if applicable

Curriculum Requirements:

Major Requirements

Construction Graphics
Structural Design I
Construction Project Scheduling
Management Law
Construction Safety and Risk Management
Leadership and Management

General Education Requirements

English Composition
Literature and Composition
Math B
Math C
Physics A
Economics

Degree Total: 64 credits (18 transfer)

Note: This program is in candidate status with the American Council for Construction Education, ACCE.

* Credit for BLDG200 is awarded upon completion of Estimating through the Boston Apprenticeship Office.

Curriculum Requirements:

Contracts and Codes (4 credits):

A comprehensive study of construction contracts including conditions of agreement and modifications. Students analyze the Massachusetts State Building Code as it applies to buildings. **Prerequisites: BLDG155 Construction Methods and BLDG115 Construction Graphics.**

Construction Methods (4 credits):

A detailed study of current methods and equipment used in timber, masonry, and steel construction. Lab exercises emphasize plan reading.

Construction Estimating (3 credits):

The fundamentals of construction estimating are covered. Quantity surveys are made for various building components and prices determined for labor and materials using a current pricing handbook. Standard estimators' forms are prepared. Computer techniques and applications are also examined. **Prerequisites: BLDG155 Construction Methods, BLDG420 Construction Operations and BLDG115 Construction Graphics.**

Construction Graphics (4 credits):

The development and interpretation of civil, architectural, structural, and electrical drawings; freehand sketching of construction details and sections; computer-aided construction drafting.

Basic Building Services (4 credits):

Examines the basic building services, including heating, water, plumbing, drainage, ventilation, air-conditioning, vertical transportation, acoustical control, electrical controls, and associated building code requirements.

1 Structural Design I (4 credits):

Topics include the principles of mechanics with emphasis on the use of dimensions, weights, forces and angles, centroids, center of gravity, free body diagrams and the laws of equilibrium as applied to trusses. **Prerequisite: MATH245 College Math II; PHYS 210 College Physics.**

Construction Project Scheduling (4 credits):

Topics include project network planning, scheduling, and cost control models. Computer applications to PERT and CPM will be explored and used by the student. **Prerequisite: BLDG155 Construction Methods. Junior status or permission of the Division Head.**

Leadership and Management (4 credits):

The course presents a range of contemporary theories in management. The role of the leader and how to create leadership are stressed.

Management Law (4 credits):

To familiarize students with legal aspects of business and management, with special emphasis on torts, contracts, choice of business entity and creditor and consumer and issues that students may encounter in their careers.

Construction Surveying (4 credits):

Instruction is given in the theory and techniques of horizontal and vertical measurements using the tape, transit, and level. Laboratory exercises will focus on the application of these techniques as they relate to the building industry, including construction layout and grades. **Prerequisite: MATH225 College Mathematics A.**

Construction Safety and Risk Management

(3 credits): Topics include the knowledge and skills required to effectively manage safety compliance and risks associated with construction.