

Innovating Workforce Supply

Converting Rigid Pipelines to Mix & Match Training



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W o r k f o r c e C h a l l e n g e s : H o w I n n o v a t i o n C a n H e l p



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Seven Strong Decades

- 40 degree programs
- Business partnerships
- Non-credit training
- High volume, direct flow through pipelines

Rust, Leaks, Plugs

- Pipelines trickle during boom!?!
- Short-term deals unsustainable
- Giggled training-giggled economy
- Beyond degrees, semesters, credits:
Mix & match

Innovation

- ~~Program to industry pipelines~~
- Unprecedented flexibility
- Stackable training & credentials
- Soft / essential skills
- Puzzle pieces fit together later

Construction Technology A.A.S.

Construction Technology

Associate in Applied Science (A.A.S.) Degree & Certificate



About Our Program

The Construction Technology program provides technical and hands-on experience in residential construction, preparing its graduates for a rewarding career in the construction industry.

The construction field involves constantly changing technology in today's continuing search for more energy-efficient structures. Technically trained professionals with innovative ideas and the skills to apply these ideas and knowledge are needed to meet the challenges of today's building industry. Related subjects such as print reading, framing, interior finishes and building science along with English composition and math provide students with a well-rounded education, allowing them to obtain employment in a variety of positions within the construction industry or its related fields.

All students participate in framing and interior finishing projects in a lab setting that provide them with the knowledge and skills to succeed in the construction industry. All classes are conducted in an environment that prepares students for the expectations of future employers. Students will use a blower door, IR camera, moisture meter, and other energy tools to perform, evaluate and prepare a single-family home energy audit and report.

What skills will I have as a graduate of this program?

- Interpret a basic set of house plans
- Use a variety of measuring tools to lay out a structure
- Set a builder's level level or transit and analyze readings
- Lay out and assemble a floor, wall and roof system
- Straighten and square framing
- Lay out, cut and erect rafters for a variety of roof styles
- Calculate framing, sheathing and roof coverings needed for a given structure
- Identify different types of cornice detail
- Identify different types of ventilation needed for a roof system
- Have an understanding of building science, energy movement within a building, building ventilation requirements as prescribed by the International Residential Code
- Produce measurements using a blower door, manometer and infrared imaging camera
- Install and properly flash windows and doors
- Install various types of exterior finishes including clapboard, wood shingles, vinyl siding and shere goods
- Install interior trim in a structure
- Lay out, frame and finish a set of interior stairs
- Lay out and build a timber-frame structure
- Design place and test concrete
- Lay out and place concrete in an insulated concrete form (ICF)
- Lay out and erect a wall using concrete blocks and bricks



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Southern Maine Community College is an equal opportunity and affirmative action institution and employer. For more information please call 207-741-5798. 7/17

W o r k f o r c e C h a l l e n g e s : H o w I n n o v a t i o n C a n H e l p



Beginner Workforce & Certificate of Readiness

CONSTRUCTION INSTITUTE 

Building Concepts & Leveling
(30 hours/2 credits)

Construction & Tool Safety
(OSHA 30) (30 hours/2 credit)

Print Reading
(30 hours/2 credits)

Framing Methods
(30 hours/2 credits)



Intermediate Workforce & College Certificate

CONSTRUCTION CERTIFICATE 

Construction Institute Courses
(120 hours/8 credits)

Roof Framing
(30 hours/2 credits)

Exterior Finishes
(30 hours/2 credits)

Interior Finishes
(30 hours/2 credits)

Building Science & Energy Auditing (45 hours/3 credits)


FIG
(15 hours/1 credit)

English Composition
(45 hours/3 credits)

Math Elective
(45 hours/3 credits)



Advanced Workforce & College Degree

CONSTRUCTION DEGREE 

Construction Institute Courses
(120 hours/8 credits)

Construction Certificate Courses (240 hours/16 credits)

Construction Electives
(180 hours/12 credits)

Open Electives
(135 hours/9 credits)

General Education Courses
(240 hours/16 credits)

W o r k f o r c e C h a l l e n g e s : H o w I n n o v a t i o n C a n H e l p

Partners

- Contractors and trade orgs
- Maine Quality Centers
- High schools, CTEs
- Career Centers/DoL
- Immigrant Services/ESOL

Results!

- ❑ New students quadrupled
- ❑ 20 graduated from 1st C.I.
- ❑ Reverse job fair; Now using new skills on the job
- ❑ 9 pursuing degrees
 - ❑ 7 C.T.; 1 HVAC; 1 Elect. Tech.