

CONSTRUCTION TECHNOLOGY

ENGINEERING, MANUFACTURING AND INDUSTRIAL TECHNOLOGY



Course Description

This program provides an overview of the construction industry by presenting information in several related areas. Students will begin the program in construction safety. Following this introduction, structural framing will be taught. Students will learn to frame residential buildings using accepted framing techniques such as framing floor systems, interior and exterior walls, ceilings, roofs, and stairs. Various types of foundations and the advantages and disadvantages of each are covered. Students will also learn how to install different roofing and siding materials, plus learn to finish the interior of a residential building. This includes the materials, installation practices and material takeoff to do the finish carpentry for a house, including windows, doors, base, chair rail, wood floors, stairs, and simple built-ins. If college-level work is attained, students may earn up to 14 Lansing Community College (LCC) college credits.

Student Leadership Opportunities

Students have the opportunity for leadership, competition and community service through membership in SkillsUSA.

Success Indicators

- Safety-conscious, attentive and focused
- Strong eye/hand coordination
- Willing to follow directions
- Enthusiastic and motivated with a good attitude, work ethic and desire to learn

Available Certifications:

- OSHA-10
- CPR
- Home Builders Association of Michigan

FOR MORE INFO:
CONTACT YOUR COUNSELOR,
CALL 517.483.1596, OR
VISIT EATONRESA.ORG/CPC



Course Overview:

Program Location: Lansing Community College (LCC) West Campus

Sessions Offered: AM

Average Lecture Days/Week: 1-2 Days

Average Lab Days/Week: 3-4 Days

Academic Rigor: 3 out of 5

Homework: Weekly

Required Reading: College-level textbooks and workbooks, less than 10 pages per week

Learning outcomes include, but are not limited to:

- Describe OSHA Regulations as they apply to construction worksites
- Describe the importance and use of personal protective equipment and practices
- Explain and demonstrate material handling and safe use of hand tools and small power tools
- Demonstrate knowledge of basic first aid
- Analyze various products, components, and building materials and determine where they will be used
- Read blueprints using standard symbols and abbreviations, plan, schedule and estimate costs for multiple components of construction
- Identify and describe the various types of foundations
- Identify and install various types of floor and roofing systems, insulation, and interior doors
- Layout and assemble exterior and interior wall systems; design and construct exterior decks
- Identify and install various exterior finish materials - vinyl siding, composite board and asphalt shingles
- Identify, install and finish drywall to walls and ceilings
- Identify and install millwork

College Credits (14)

- TECH 100 - Construction Safety
- BLDT 120 - Structural Framing
- BLDT 130 - Building Exterior Construction
- TECH 100 - Construction Safety
- DCTM 101 - Intro to Drafting/CAD
- BLDT 140 - Building Interior Construction

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CONSTRUCTION TECHNOLOGY



PROFESSIONAL CAREERS

- Architect
- Carpenter Foreman
- Construction Owner/Business Manager
- Design & Build Manager
- General Contractor
- Job Superintendent
- Project Engineer
- Project Manager

TECHNICAL CAREERS

- Brick/Block/Stone Mason
- Bricklayer, Poured Wall, or Finish Concrete Mason
- Cabinetmaker/Woodworker
- Carpenter
- Finish/Trim Carpenter
- Insulation Worker
- Residential Contractor
- Roofing Contractor

ENTRY-LEVEL CAREERS

- Concrete Laborer
- Construction General Laborer
- Drywall Installer
- Painter & Drywall Installer
- Residential Bricklayer
- Siding Installer
- Siding/Door/Window Installer
- Site Laborer

ACADEMICS

EXPERIENCES

PROFESSIONAL SKILLS

PASSION

Education with Purpose.

CAREER TREE®

Explore Your Future with Career Trees

Career Trees shows how what you learn today can grow into a future career. Each branch represents real jobs and opportunities connected to a specific field, from entry-level roles to advanced professions.

Use the Career Tree to explore your interests, learn what education or training is needed, and plan your next steps after high school. The more you explore, the more you'll see how skills learned now can lead to a strong, rewarding future.

Scan the QR code below to learn more and watch the program video.

**SCAN
ME!**



Capital Region Technical Early College (CRTEC)

Students enrolled in this program may choose to participate in the Capital Region Technical Early College (CRTEC) program. This is a high school-to-college program where students start in grade 11 and end their 13th year with a degree or certification. This program gives students relevant career related experiences.



**EXPLORE THE POSSIBILITIES.
FAST TRACK YOUR FUTURE.**