

# BUILDING THE FUTURE

A K-12 CONSTRUCTION EDUCATION INITIATIVE OF JE DUNN



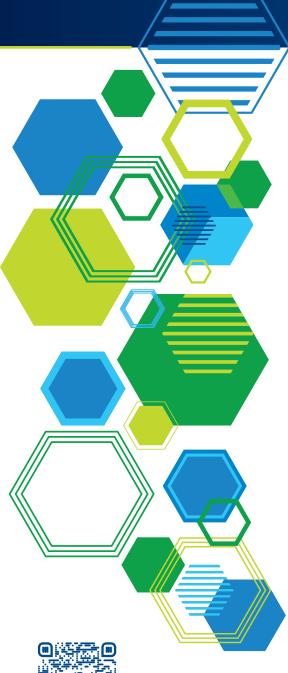




#### INTRODUCING

## **BUILDING THE FUTURE!**

A K-12 CONSTRUCTION EDUCATION INITIATIVE OF JE DUNN



Building the Future introduces construction careers and supports students looking to enter the construction industry – with or without a college degree! Students can build awareness of careers, experience hands-on engagement, connect with JE Dunn employees and mentors, and discover opportunities to prepare for entry into the workforce. Building the Future is also a place to support parents and educators.

This binder is designed to support conversations with students and their parents about careers in the construction industry. You will find detailed information regarding various skilled trades and who to contact, college pathways for construction management, and a path for career growth at JE Dunn. Scan the QR codes to learn more.

In addition, you'll find a menu of engagement opportunities for students. JE Dunn is committed to building connections with you and your students.



#### **MEET THE EDUCATOR**

#### CHERA HISHAW

Community Impact Education Manager chera.hishaw@jedunn.com

Scan the QR code to learn more

BUILDINGTHEFUTURE.JEDUNN.COM #JEDUNNBUILDINGTHEFUTURE Chera is an experienced educator, Kansas City native, and daughter of a former construction company owner. She has her bachelor's in education from Rockhurst University and is completing her master's in D&I Leadership at KU. Her energy and passion for K-12 and construction careers is undeniable.





# STUDENT ENGAGEMENT OPPORTUNITIES IN KANSAS CITY

What?	Which Grade Level?	How Long?	Where?
Intro to Careers/Interactive Activity – Presentation of construction careers by JE Dunn professionals. Provide students with materials for in-class interactive activity and guide student reflection.	Elementary Middle School High School	2 hours	Classroom
Career Story – Students learn about building through a read-aloud and drawing activity where they learn foundational roles and envision themselves in them.	Elementary	1 hour	Classroom
Construction Introduction – Students visit JE Dunn headquarters to learn about career paths in construction management and skilled trades in an expo-style event, led by JE Dunn and trade partner volunteers.	Elementary Middle School High School	4 hours w/ lunch	JE Dunn Headquarters
Roundtable Career Lunch – Brief overview of construction careers and group discussion about entering construction industry/careers.	Middle School High School	4 hours w/ lunch	JE Dunn Headquarters Classroom
Construction Technology – Brief introduction to construction careers that utilize construction technology. Students explore Building Information Modeling and Virtual Design & Construction through virtual reality, augmented reality, and visual models.	Middle School High School	1 hour	Classroom
Career Showcase – JE Dunn volunteers visit local schools or educational nonprofits and engage with students in career fair, career day, or expo events being hosted by the requesting organization.	Elementary Middle School High School	1-4 hours	Classroom



## CONSTRUCTION MANAGEMENT CAREER PATH

Guides individual projects and team \$\$\$\$

Manage partnerships and materials \$\$\$

Reads drawings and identifies materials \$\$

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SENIOR LEADERSHIP

PROJECT EXECUTIVE

PROJECT MANAGER

PROJECT ENGINEER GENERAL SUPERINTENDENT

SUPERINTENDENT ....

FIELD ENGINEER

**COLLEGE** 

COLLEGE INTERN
OPPORTUNITIES

HIGH SCHOOL DIPLOMA/GED

Drives company strategy and staff \$\$\$\$\$

Oversees all aspects of construction projects \$\$\$\$

 Manages materials, skilled trades, and documentation onsite \$\$\$

Complete and support building projects \$\$

Earns degree in
Construction Management or
related discipline

 Completes supervised work to learn construction fundamentals (recommended)

\$



#### **BUILDING THE FUTURE**

# CONSTRUCTION RELATED DEGREES

CONSTRUCTION IS AN EXCITING AND DYNAMIC FIELD THAT REQUIRES PEOPLE WITH DIFFERENT EDUCATION BACKGROUNDS TO ACHIEVE SUCCESS. BELOW ARE SOME OFTHE CONSTRUCTION-RELATED DEGREES AT KANSAS CITY AREA JE DUNN UNIVERSITY PARTNERS.



The degree programs below provide students with a strong foundation for a successful construction career.

#### KANSAS STATE UNIVERSITY

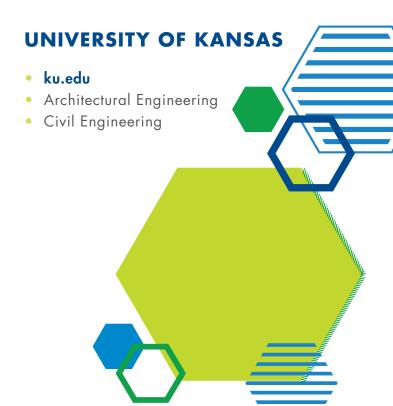
- k-state.edu
- Architectural Engineering
- Civil Engineering (available as Bachelors and Concurrent Bachelors/Masters)
- Construction Management

#### MISSOURI S&T

- mst.edu
- Architectural Engineering
  - Emphasis Area Options
    - Construction Engineering
    - Construction Materials
    - Project Management
    - Structural Engineering
- Civil Engineering
  - Emphasis Area Options
    - Construction Engineering
    - Construction Materials
    - Project Management
    - Structural Engineering

# UNIVERSITY OF CENTRAL MISSOURI

- ucmo.edu
- Construction Management
- Engineering Technology:
   Civil Engineering Technology





# SKILLED TRADES

CAREER PATH

#### **EXAMPLES OF SKILLED TRADES**

**CARPENTER** – Measure, shape, cut, and assemble materials to match plans accurately.

LABORER – Complete various tasks on the job site such as demolition, cleanup, and machine use.

**CEMENT MASON** – Prepare and create surfaces made of concrete to match plans.

**OPERATOR** – Safely and effectively operate specialized construction machinery such as cranes, bulldozers, drilling machines, and pavers.

### BUILDING THE FUTURE

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SENIOR LEADERSHIP

GENERAL SUPERINTENDENT

SUPERINTENDENT

FOREMAN / FOREWOMAN

JOURNEYPERSON ....

APPRENTICE

HIGH SCHOOL DIPLOMA/GED

Drives company strategy and staff \$\$\$\$\$

Oversees all aspects of construction projects \$\$\$\$

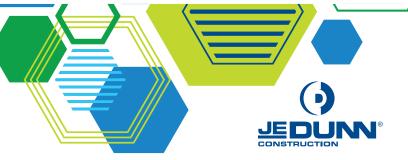
Manages materials, skilled trades, and documentation onsite \$\$\$

Manages skilled tradespeople \$\$

Completes unsupervised skilled trades work \$\$

Completes supervised skilled trades work





Carpenters are employed in almost every type of construction activity. These skilled trade professionals create concrete forms, interior systems, sheet rock, metal studs, and acoustical ceilings on "rough" and "finish" type projects. This field requires interpreting blueprints, drilling, welding, and bolting to precise instructions - sometimes within a thousandth of an inch!

#### Get started with an apprenticeship!

Free program

3-4 years on-site work with quarterly classes

Hourly Pay + benefits

#### Here's how to get started:

Complete an application

Obtain a letter of intent

 $(3) \longrightarrow Pay $24 \text{ permit fee}$ 

\*Source: The Builders' Association Education and Training Center Apprenticeship Guide

#### **READY TO LEARN MORE?**

**#JEDUNNBUILDINGTHEFUTURE** 

Contact Bob Hale Mid-America Carpenters Regional Council 816.471.0883 or website@carpdc.org



Scan the QR code to learn more

#### **BASIC REQUIREMENTS FOR** A CAREER IN THE SKILLED TRADES

**18+** Minimum 18 years of age









Reliable transportation



Background Check



Drug free



Ready to learn and work hard!









Laborers work closely with other craft workers relying on cross-functional job skills. These skilled trade professionals install pipes, use LASER equipment, assemble scaffold systems, and perform safety hazard analysis, traffic control, and environmental worker duties.

#### Get started with an apprenticeship!

Free program

3-4 years on-site work with quarterly classes

Hourly Pay + benefits

#### Here's how to get started:

Complete an application

Obtain a letter of intent

\*Source: Western MO and KS Laborers' Training Fund

#### BASIC REQUIREMENTS FOR A CAREER IN THE SKILLED TRADES

18+ Minimum 18 years of age

U.S. work authorization document

High school diploma or GED

✓ Valid driver's license



Reliable transportation



Background Check



Drug free



Ready to learn and work hard!



#### **READY TO LEARN MORE?**

Contact Donald Slack Construction Craft Laborers 816.331.6862 or director@gkcltc.org



Scan the QR code to learn more

Ironworkers are trained in all aspects of commercial steel construction including welding, structural steel erection, reinforcing steel installation, architectural, and ornamental construction, precast concrete erection, and pre-engineered metal buildings. Daily job tasks include raising, placing, and joining steel girders and columns to form structural frameworks.

#### Get started with an apprenticeship!

Free program

3-4 years on-site work with quarterly classes

Hourly Pay + benefits

#### Here's how to get started:

Complete an application

Contact union rep

(3) -> Interview required

#### BASIC REQUIREMENTS FOR A CAREER IN THE SKILLED TRADES

18+ Minimum 18 years of age

U.S. work authorization document

High school diploma or GED

Valid driver's license



Reliable transportation



Background Check



Drug free



Ready to learn and work hard!



#### **READY TO LEARN MORE?**

Contact Bob Kanatzar Ironworkers Local 10 816.595.4110 or bob@mokanironworkers.com



Scan the QR code to learn more

<sup>\*</sup>Source: The Builders' Association Education and Training Center Apprenticeship Guide





Operators receive training in areas such as safety, fuels, rigging and signaling, coolants, and grade stakes. These skilled trade professionals operate cranes, bulldozers, backhoes, graders, loaders, pavers, drilling machines, and other specialized construction machinery.

#### Get started with an apprenticeship!

Free Program

3-4 years on-site work with quarterly classes

Hourly Pay + benefits

#### Here's how to get started:

Complete an application

> Obtain a letter of intent

\*Source: International Union of Operating Engineers

#### BASIC REQUIREMENTS FOR A CAREER IN THE SKILLED TRADES

18+ Minimum 18 years of age

U.S. work authorization document

High school diploma or GED

✓ Valid driver's license



Reliable transportation



Background Check



Drug free



Ready to learn and work hard!



#### **READY TO LEARN MORE?**

Contact Stoney Cox International Union of Operating Engineers 816.640.2336 or resume@iuoelocal101.org



Scan the QR code to learn more





Cement Masons are responsible for all concrete construction, including pouring and finishing of slabs. These skilled trade professionals use artistry and craftsmanship to ensure that structures are both strong and beautiful.

#### Get started with an apprenticeship!

Free Program

3-4 years on-site work with quarterly classes

Hourly Pay + benefits

#### Here's how to get started:

Complete an application



\*Source: The Builders' Association Education and Training Center Apprenticeship Guide

#### **READY TO LEARN MORE?**

Contact Tina Read Operative Plasterers & Cement Masons 816.471.0880 x 1332 or tread@opcmia518.org



Scan the QR code to learn more

#### **BASIC REQUIREMENTS FOR** A CAREER IN THE SKILLED TRADES

18+ Minimum 18 years of age



U.S. work authorization document



High school diploma or GED



✓ Valid driver's license



Reliable transportation



题 Background Check



Drug free



Ready to learn and work hard!







Bricklayers construct walls, partitions, fireplaces, chimneys, and other structures from brick, using various masonry materials. These skilled trade professionals also install the brick linings of kilns and furnaces. Their basic job duties include use of trowels and other special finishing tools.

#### Get started with an apprenticeship!

Free Program

3-4 years on-site work with quarterly classes

Hourly Pay + benefits

#### Here's how to get started:

Complete an application



\*Source: Bricklayers & Allied Craftworkers' Union

#### BASIC REQUIREMENTS FOR A CAREER IN THE SKILLED TRADES

18+ Minimum 18 years of age

U.S. work authorization document

High school diploma or GED

Valid driver's license



Reliable transportation



Background Check



Drug free



Ready to learn and work hard!



#### **READY TO LEARN MORE?**

Contact RJ Heinse Bricklayers & Allied Craftworkers 816.471.0880 x 1348 or rheinse@wetrainbac15.org



Scan the QR code to learn more

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