

18TH BUILT ENVIRONMENT CONFERENCE

INDUSTRY ROUNDTABLE EVENT - 16 JULY 2024
NELSON MANDELA UNIVERSITY, GQEBERHA, SOUTH AFRICA

CONSTRUCTION AT THE CROSSROADS: PAST, PRESENT & FUTURE







UNIVERSITY
OF WYOMING

College of
Engineering and
Applied Science

NELSON MANDELA
UNIVERSITY



Cheyenne Frontier Days



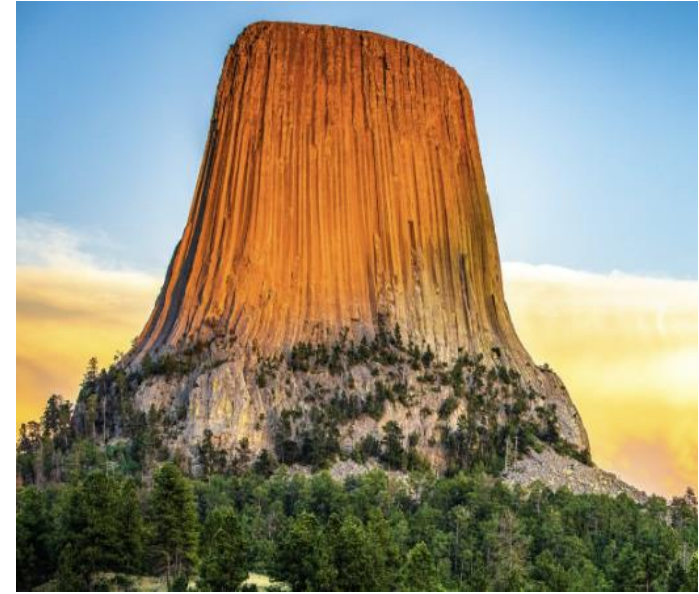
Cheyenne Frontier Days bills itself as the "World's Largest Outdoor Rodeo and Western Celebration", that draws nearly 200,000 annually.



Yellowstone National Park



Great Teton National Park



Devils Tower National Monument



Prof Theo C Haupt



Prof Jason Eggemeyer



Robert Hill



Dr Jon Elliot

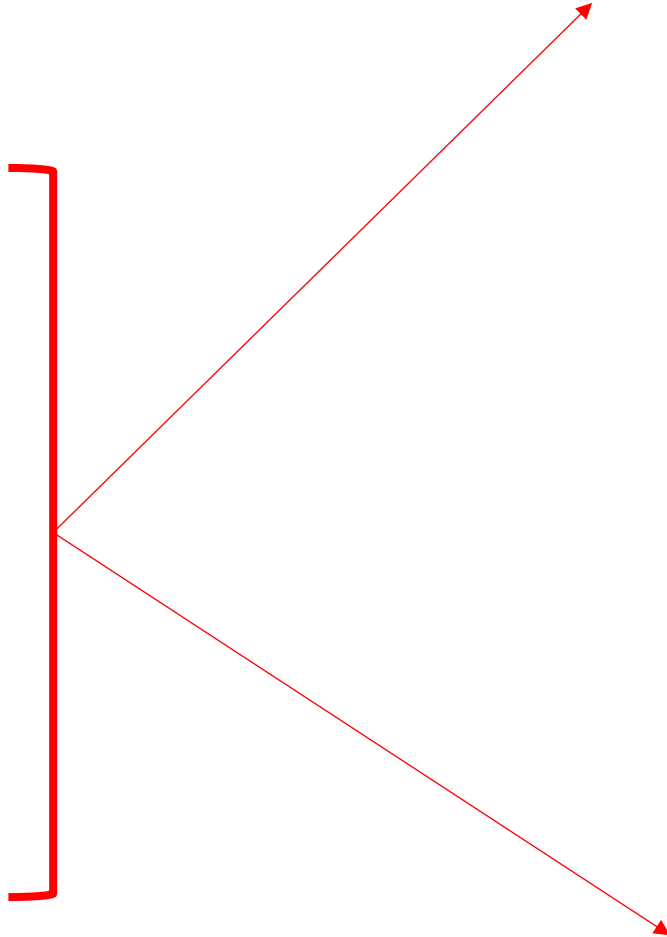




Dear reader,

How responsive is the construction industry locally and globally and capable of responding to the following challenges:

- An ageing workforce?
- Unnecessarily poor image to attract younger workers including more women and ethnic minorities?
- Raising skills levels to include the use of digital technologies and new materials
- Improving productivity and innovation?
- Improving workforce retention?
- Adapting to an increasing culture of self-employment?
- Stabilizing a 'boom and bust' business model with low profit margins?
- Addressing the mismatch between skill demand and training supply?
- Improving access to training for both young people and adults?
- Increase career-advancement opportunities?
- Reducing fraud and corruption?
- Lack of promotion of the industry?
- Using persistently the traditional procurement system that fosters low quality inputs resulting in poor quality outputs?
- Finding tradespeople in the short term?



Ageing Workforce

Attract Young Workers

Raising Skill Levels

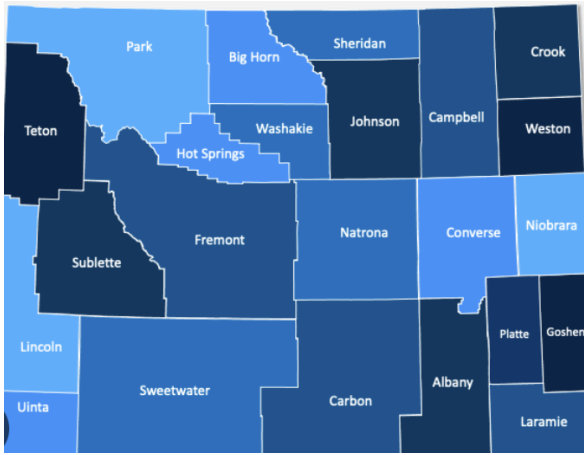
Workforce Retention

Skill Demand and Training Supply

Training Across all Career Levels

Career Advancement Opportunities

Finding Trades People in the Short Term



WY Population = 581,000

WY Unemployment 2.8 %

WY Construction to GDP = 2.8%



SA Population 60 mil

SA Unemployment 45.5 % (15-34)

SA Construction to GDP = 5.8 %

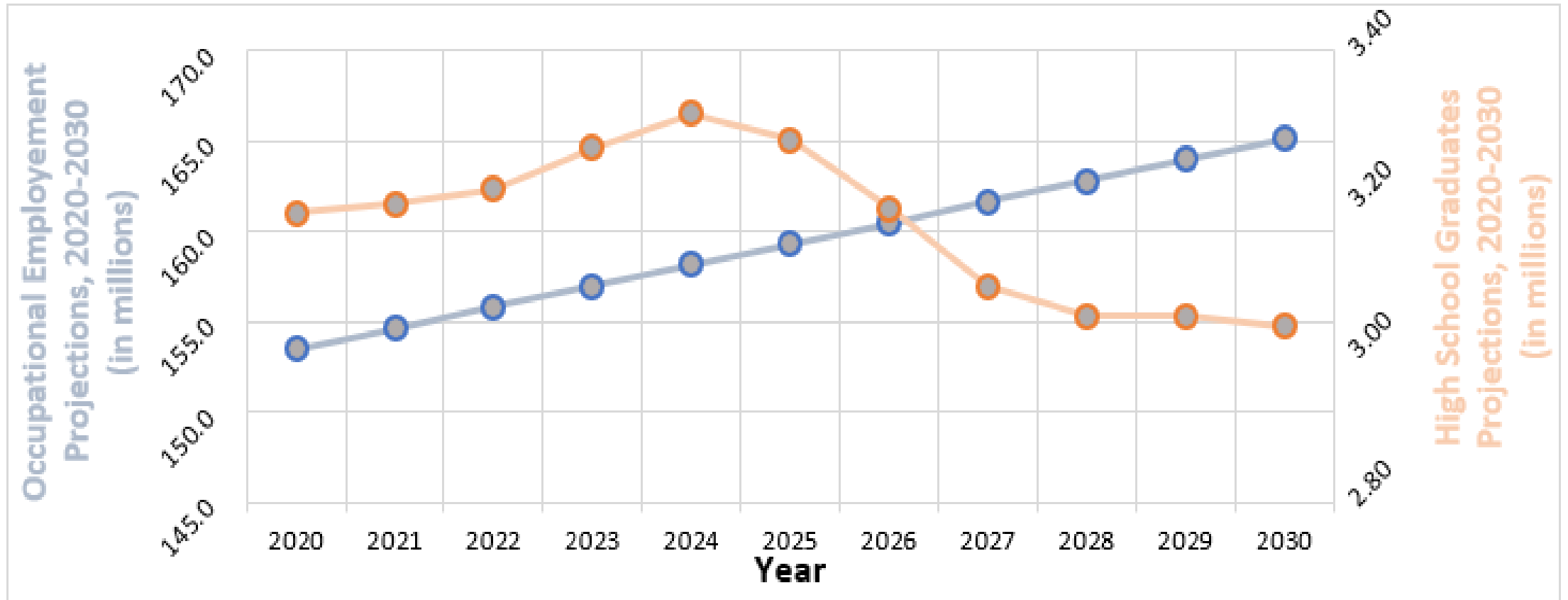


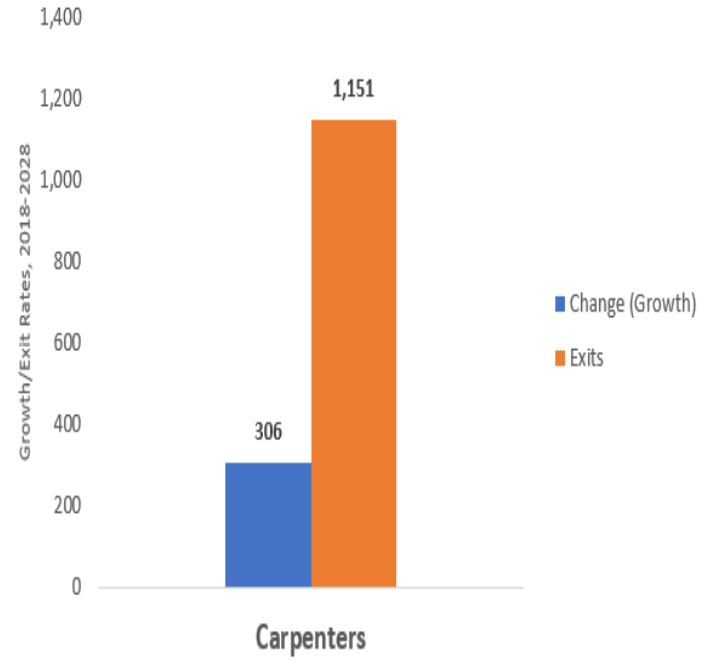
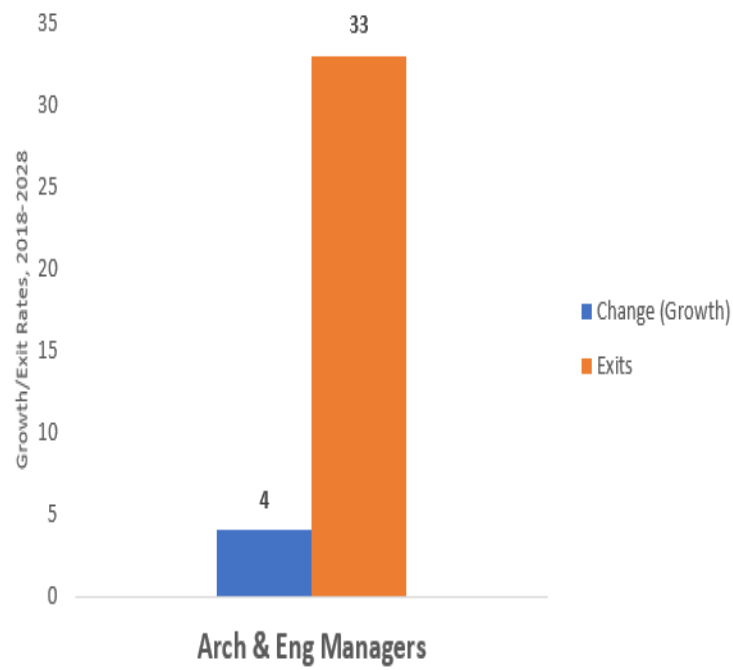
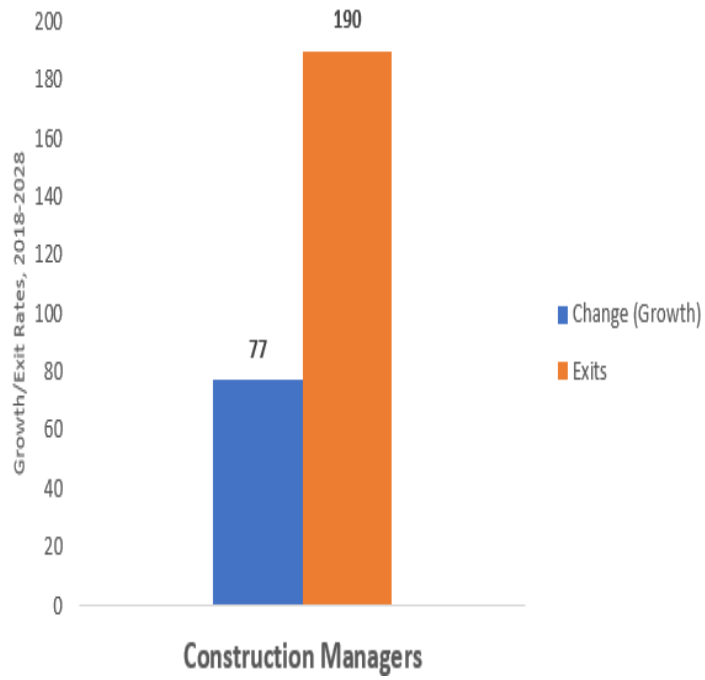


It's becoming easier to get a corporate job [without a college degree](#): 1 in 3 companies say they no longer list educational requirements on their salaried job postings. The move could benefit the roughly [62% of U.S. workers](#) who don't have a degree, according to the U.S. Census Bureau.



US Future Construction Workforce Reality

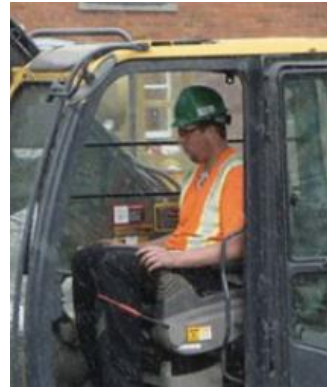






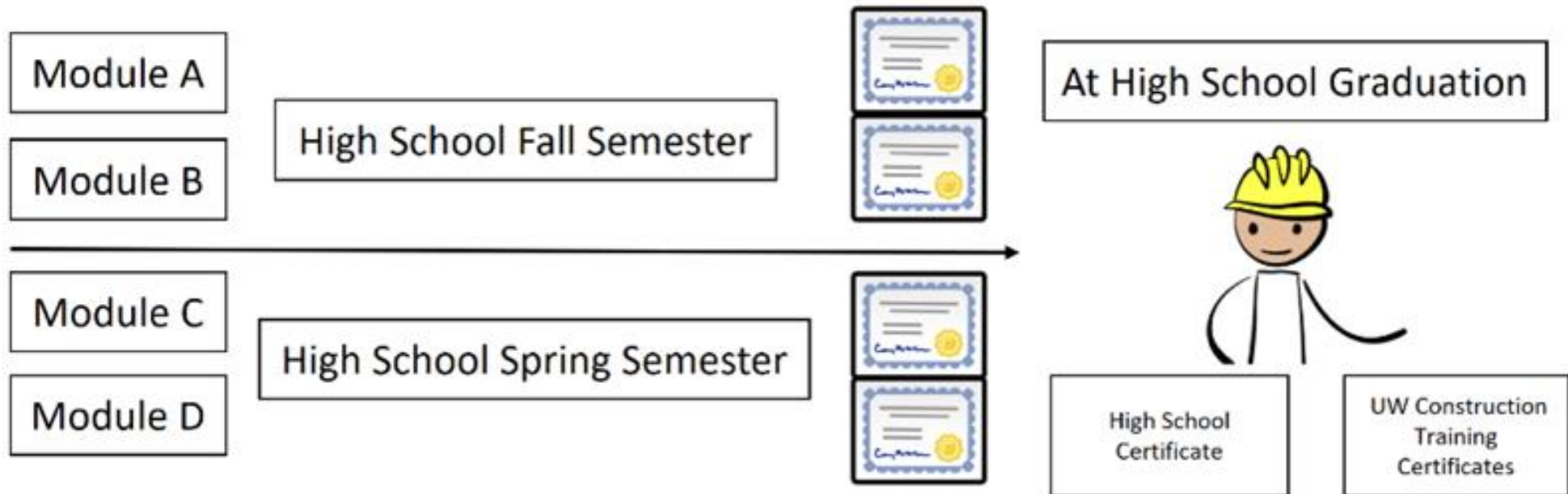
Industry Operating Platform

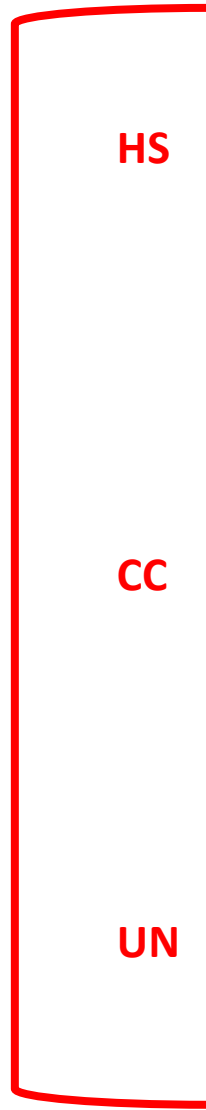






Construction High School Apprenticeship Training with Stackable Credentials and Transferable Academic Credits.



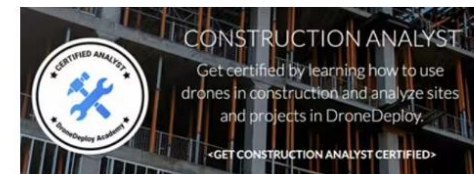


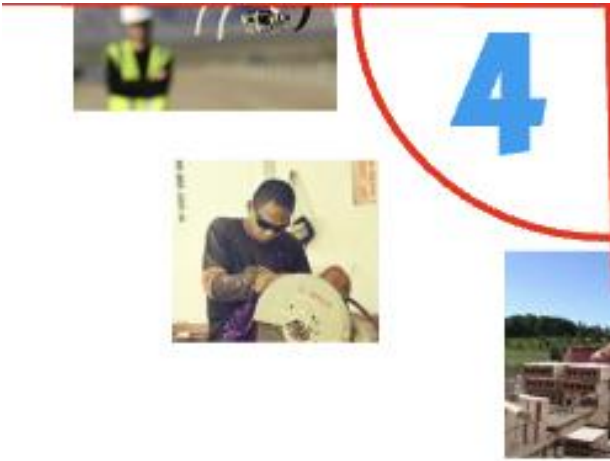
Construction Co-Teaching Training between University, Community College and High Schools with **integrated industry certificates** and **transferable academic credits**





Construction Degree Training, accredited by the American Council of Construction Education (ACCE), supported by **internship credits** and **7 industry recognized certificates**.





CONSTRUCTION WORKFORCE TRAINING


SPRING 2024






College of Engineering and Physical Sciences
Civil and Architectural Engineering
and Construction Management





Spring 2021

Construction Workforce Training

These classes are made available in part by a Workforce Development Training Fund Pre-Hire Grant through the Department of Workforce Services.
*Delivered Online via Zoom

Spring Course Schedule

Module 1 (8 hrs)
Construction Site Management

- Step 1: FEB 3 | 1-5 pm mandatory zoom attendance
- Step 2: FEB 10 | assignments & evaluation due

Module 2 (8 hrs)
Construction Plan Reading

- Step 1: FEB 17 | 1-5 pm mandatory zoom attendance
- Step 2: FEB 24 | assignments & evaluation due

Module 3 (8 hrs)
Estimating, Bidding, & Contracts

- Step 1: MARCH 3 | 1-5 pm mandatory zoom attendance
- Step 2: MARCH 10 | assignments & evaluation due

Module 4 (8 hrs)
Facility Management

- Step 1: MARCH 17 | 1-5 pm mandatory zoom attendance
- Step 2: MARCH 24 | assignments & evaluation due

Module 5 (8 hrs)
Construction Scheduling

- Step 1: MARCH 31 | 1-5 pm mandatory zoom attendance
- Step 2: APRIL 7 | assignments & evaluation due

Who Will Benefit?

- Wyoming Construction Companies and their workers
- Wyoming residents, who would like to obtain training for a future career in the Construction Sector


What Will You Earn?

- Certificate of Completion after the successful completion of steps 1 & 2 of each module
- Certificate of Accomplishment after the completion of all five modules

Awarded by the Civil, Architectural, and Construction Management Department at UW.

Register for one or all five course modules!
For more information, visit:
<https://www.uwyo.edu/civil/construction-training/index.html>

Questions?
Contact Francois Jacobs
fjacobs@uwyo.edu (307)766-2392



Spring 2022

Construction Workforce Training

These classes are made available in part by a Workforce Development Training Fund Pre-Hire Grant through the Department of Workforce Services.
*Delivered Online via Zoom

Spring Course Schedule

Module 1 (8 hrs)
Construction Site Management

- JAN 19 | 1-5 pm Mandatory Zoom Attendance
- JAN 26 | 1-5 pm Mandatory Zoom Attendance

Module 2 (8 hrs)
Integrating Construction Site Technology and Beyond

- FEB 2 | 1-5 pm Mandatory Zoom Attendance
- FEB 9 | 1-5 pm Mandatory Zoom Attendance

Module 3 (8hrs)
Construction Plan Reading

- FEB 16 | 1-5 pm Mandatory Zoom Attendance
- FEB 23 | 1-5 pm Mandatory Zoom Attendance

Module 4 (8hrs)
Construction Documents and Contracts

- MAR 2 | 1-5 pm Mandatory Zoom Attendance
- MAR 9 | 1-5 pm Mandatory Zoom Attendance

Module 5 (8 hrs)
Construction Scheduling

- MAR 23 | 1-5 pm Mandatory Zoom Attendance
- MAR 30 | 1-5 pm Mandatory Zoom Attendance

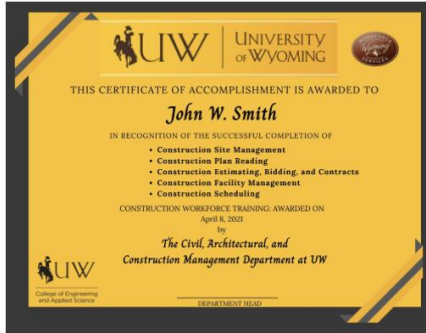
Training Requirments

- Learners should register for the training through their current company of employment or future company that will hire them upon the completion of their training, in support of post training employment tracking.

What Will You Earn?

- Certificate of Completion after the successful completion of each module
- Certificate of Accomplishment after the completion of all five modules

Awarded by the Civil, Architectural, and Construction Management Department at UW.



Construction High School Training Program



Construction High School apprentice training with stackable credentials and transferable academic credits.

University/ Community College/ High School Co-Teaching Initiative



Construction Co-Teaching training between University, Community College, and High Schools with integrated industry certificates and transferable academic credits.

Construction Workforce Training Program

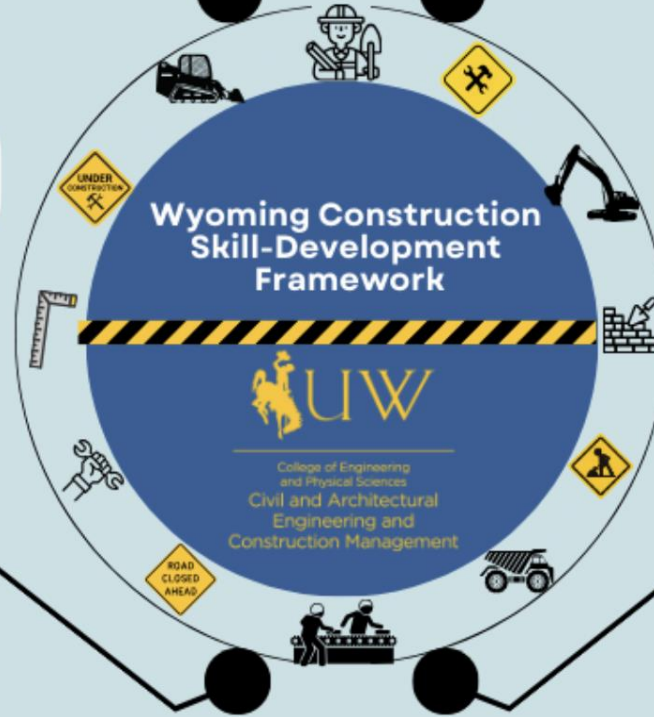


Construction Workforce Training across all career stages with University endorsed stackable certificate credentials.

Construction Management Degree Program



Construction degree training, accredited by the American Council of Construction Education (ACCE), supported by internship credits and 7 industry recognized certificates.



Construction 5.0: towards a collaborative and people-centered industry.

Ageing Workforce



Attract Young Workers



Raising Skill Levels



Workforce Retention



Skill Demand and Training Supply



Training Across All Career Levels



Career Advancement Opportunities



Finding Trades People in the Short Term



Thank you, for the privilege of this opportunity.

