Career Cluster: Architecture and Construction

Postsecondary Education Partnerships

Existing Postsecondary Education Partners:

- **MTI**
- https://www.mitchelltech.edu/academics/programs-we-offer/on-campus/construction-manufacturing-technologies/architectural-design-and-building-construction
- https://www.mitchelltech.edu/academics/programs-we-offer/on-campus/construction-manufacturing-technologies/electrical-construction-maintenance
- https://www.mitchelltech.edu/academics/programs-we-offer/on-campus/construction-manufacturing-technologies/electrical-construction-maintenance
- **Dakota Western Tech**
- https://www.wdt.edu/degree-programs/hvac-refrigeration-technology
- https://www.wdt.edu/degree-programs/electrical-trades

- Mount Marty
- **STI**
- http://www.southeasttech.edu/academics/degrees/industrial_technology/plumbing_mechanical_systems_technology/
- http://www.southeasttech.edu/academics/degrees/industrial_technology/residential_heating__air_conditioning_technology/
- LATI
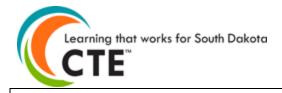- https://www.lakeareatech.edu/academics/building-trades-technology/

Potential Postsecondary Education Partners:

- USD
- SDSU
- Northern, Black Hill State
- SDSU's Construction Management Program

Dual Credit Opportunities:

Please Refer to:
http://apps.sd.gov/de68dual/DualCreditDashBoard.aspx

MTI: (Mitchell Technical Institute
 Architectural Drafting
Heating Fundamentals
Air Condition Refrigeration Fund

STI: (Southeast Technical Institute)
Computer Assisted Design I
Engineering Drawing
Blueprint Reading for Plumbers
Basic Refrigeration
Plumbing Theory and Processes
Basic Heating Systems
Print Reading for Construction
WDT: (Western Dakota Tech)
Electrical Fundamentals

Work-Based Learning

Career Exploration:

- **Construction awareness days**
  AGC Construction Awareness Days Link: http://www.sdagc.org/workforce-development/construction-awareness-days/
- **Guest Speakers**
- **Career Fairs**

Intermediate Experiences:

- Job shadowing at Industry Trade Shows
- Interview a professional and post/publish the interview
- Industry professionals mentor students on a project or competition entry
- Industry professionals act as a virtual coach for creative product such as a website or CAD design

Capstone Experiences:

- Entrepreneurship Senior Project
- Internship programs available at for-profit, non-profit, and academic institutions
- Grant funded internship programs

Experiential Learning

Career and Technical Student Organizations and Key Activities (competitions, events, etc.):	Course and CTE Standards Supported:

• Skills USA
  http://www.skillsusa.org
Trades Skills Contest
Additive Manufacturing (Design for 3D Printing, Scanning and Digital Manufacturing)
Architectural Drafting
Cabinetmaking
Carpentry
Customer Service
Electrical Construction Wiring
Heating, Ventilation, Air Conditioning and Refrigeration
Job Skill Demonstration A
Job Skill Demonstration Open
Masonry
Plumbing
Principles of Engineering
Related Technical Math (Test Only)
Residential Systems Installation and Maintenance
Sheet Metal
T-Shirt Design
Teamwork's - Team of 4
Technical Drafting
 	
Action Skills (Students with Disabilities ONLY)
Building Maintenance (Students with Disabilities ONLY)
 	
Leadership Contests
 	
American Spirit
Career Pathways Showcase Team of 3
    Industrial and Engineering Technology
 	
Chapter Business Procedure Team of 6
Chapter Display	

Community Action Project (Team of 2) (Demonstration) Community Service Team of 3 Customer Service Employment Application Process Entrepreneurship Team of 4 Extemporaneous Speaking Job Interview Job Skill Demonstration A Job Skill Demonstration Open Opening and Closing Ceremonies Team of 7 Occupational Health and Safety (1-3 Individual and/or Team) Outstanding Chapter Prepared Speech Promotional Bulletin Board Quiz Bowl (Team of 5) • National Science Competition • ACE Mentoring Program for Architecture and Construction **http://www.acementor.org**	
Service Learning Opportunities/Organizations: Community service based in your area. • Habitat for Humanity • SD My Life activities	**Course and CTE Standards Supported:**
Additional Experiential Learning Opportunities: • Construction Awareness Camps • Employability Youth Internships • World of Work	**Course and CTE Standards Supported:**

Certification and Credentials

Certification/Credential	Recommended Prerequisite Courses	Pertinent Details (location of assessment, cost, test prep, etc.)

NCCER	General High School Courses	Check local resources
OSHA 10		Check local resources
ADDA	Intro to Drafting Design, Architectural Drafting	Check local resources
Solid Works	Intro to Drafting, Mechanical Drafting	Check local resources
CPR/First Aid		Check local resources

Additional Resources: List any key resources that teachers, administrators, and program coordinators would find useful as they plan to implement this career cluster.