Construction Pathway

ACADEMY OF DESIGN, ENGINEERING, AND TECHNICAL SCIENCES

Our MISSION
Educating all learners for tomorrow's world.

Pathway Experience

The Construction Technology Pathway investigates the design and skills in the construction industry. This program is intended to provide a pathway into the industry with fundamentals in materials, safety, building trades, and introductions to residential plumbing, electrical, HVAC, masonry, exterior, and interior finishing. Learners may earn industry certifications, prepare for college, or pre-apprenticeship options.

HIGH-WAGE, HIGH-SKILL, AND HIGH-DEMAND CAREERS	
Construction	Carpenter · Drywall Installer · Painter · Equipment and Materials Manager · Electrician · Plumber · Specialty Contractor · Project Inspector · Construction Engineer
Design/ Pre-Construction	Building Code Official · Interior Designer · Architect · Surveying and Mapping Technician · Specification Writer · Drafter · Regional and Urban Planner
Maintenance/ Operations	Code Official · Construction Engineer · Estimator · System Installer · Subcontractor · Hazardous Material Remover · Security and Fire Alarm System Manager

PROGRAM OF STUDY: EDUCATION PATHWAY				
SUBJECT	**9th Grade**	**10th Grade**	**11th Grade**	**12th Grade**
Choice Ready Planning	Freshman Experience HS 101	Choice Ready Career & Financial Literacy	Cybersecurity & College Ready	Senior Experience & Profile of a Graduate
CTE Pathway	**Construction Tech**	**Woods I/Woods II**	**Building Trades I**	**Building Trades II**
English Language Arts	**4 Credits required:** core academic, electives, and dual credit are available			
Math	**3 Credits required:** core academic, electives, and dual credit are available			
PE/Health	**1.5 Credits required:** core academic, electives, and dual credit are available			
Science	**3 Credits required:** core academic, electives, and dual credit are available			
Social Studies	**3.5 Credits required:** core academic, electives, and dual credit are available			
Other Electives	Other electives for pathway preparation: Business, Engineering, Heavy Equipment, Interior Design, Manufacturing, Marketing			

Aligned Career and Technical Student Organization(s)

Skills USA—SkillsUSA is a local, state, and national co-curricular association serving high school, college and middle school students who are preparing for careers in trade, technical and skilled service occupations, including health occupations. SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens the SkillsUSA Framework of personal, workplace and technical skills. Contact your SkillsUSA Advisor to learn more.

College & Career Experiences – Accessible to ALL Academy Program of Study Students

4-year rolling plan, Classroom Guest Speakers, Campus and Industry Tours, Career Interest Inventory, College Application, R U Ready ND exploration, Compass Tool Profiles, College & Career Research, College and industry representative visits during advisory and lunch and learn session, Job Shadow/ Professional Interview/CareerViewXR, Scholarship & Financial Aid, Senior Capstone/Profile of a Graduate Reflection

Early Postsecondary Courses – Accessible to ALL Academy Program of Study Students

Review the West Fargo Course Catalog for dual credit course and advanced placement course offerings. (link)

Professional Certification(s)

OHSA 10

Coordinated Plan of Study – ND Scholarship	
Course Name	**Credit**
Foundations of Construction	1
Building Trades I	2
Building Trades II	2
Cooperative Work Experience	.5 - 4

Is this Academy for you?

- Are you curious to read and follow instructions, and/or blueprints?
- Can you picture in your mind what a finished product could look like?
- Do you like to work with your hands?
- Are you attentive when completing work that requires patience and precise results?
- Are you interested in learning how to apply math to real projects?
- Do you work best with logical, step-by-step procedures to solve technical problems?
- Do you like to create or design projects that interest others?
- Does it interest you to use tools, technology, and/or operate machines?
- Can you see yourself working as a member of a team?

North Dakota Architecture & Construction Related Postsecondary Programs			
Pathway	**Certificate or Associate's Degree**	**Bachelor's Degree**	**Master's Degree or More**
Construction	♦ Building Construction Technology (NDSCS, TMCC) ♦ Building Trades (SBC) ♦ Carpentry (BSC, BJCC, CCCC) ♦ Concrete (SBC, TMCC) ♦ Construction Management/ Technology (CCCC, NDSCS, NHSC) ♦ Electrical Technology (NDSCS, SBC, TMCC) ♦ Framing (SBC) ♦ Heating Ventilation & Air Conditioning (BSC, CCCC, NDSCS, TMCC) ♦ Interior Construction (SBC) ♦ Land Surveying and Civil Engineering Technology (NDSCS) ♦ Plumbing (NDSCS) ♦ Sustainable Construction Technology (BSC)	♦ Construction Engineering (NDSU) ♦ Construction Management (NDSU)	♦ Construction Management (NDSU)
Design/ Pre-Construction	♦ Architectural Drafting and Estimating Technology (NDSCS) ♦ Land Surveying and Civil Engineering Technology (NDSCS)	♦ Architecture (NDSU) ♦ Civil Engineering (NDSU) ♦ Construction Engineering (NDSU) ♦ Landscape Architecture (NDSU)	♦ Architecture (NDSU) ♦ Civil Engineering (NDSU)
Maintenance/ Operations	♦ Facilities Maintenance (BJCC) ♦ Mechanical Systems (NDSCS) ♦ Mechanical Maintenance Technology (BSC)		