



Architecture & Construction Career Cluster

Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Construction	Carpenter • Drywall Installer • Painter • Equipment and Materials Manager • Electrician • Plumber • Specialty Contractor • Project Inspector • Construction Engineer
Design/Pre-Construction	Building Code Official • Architect • Cost Estimator • Specification Writer • Architectural and Civil Drafting Technician • Regional and Urban Planner
Maintenance/Operations	Maintenance Scheduler • Construction Engineer • Estimator • System Installer • Subcontractor • Hazardous Material Remover • Security and Fire Alarm System Manager

HIGH SCHOOL COURSE REQUIREMENTS				
English	Math	Science	Social Studies	Physical Education
Four units required to graduate; including literature, composition, and speech.	Three units required to graduate	Three units required to graduate.	Three units required to graduate.	One unit required to graduate.
Choices may include:	Choices may include:	Required Units:	Required Units:	Required Units:
<input type="checkbox"/> English 9 05071	<input type="checkbox"/> Algebra I 11031	<input type="checkbox"/> Physical Science 13030	<input type="checkbox"/> U.S. History 15085	<input type="checkbox"/> Physical Education 1 unit 08030
<input type="checkbox"/> English 10 05072	<input type="checkbox"/> Geometry 11120	<input type="checkbox"/> Biology 13020	<input type="checkbox"/> American Government ½ unit AND 15111	OR
<input type="checkbox"/> English 11 05073	<input type="checkbox"/> Advanced Algebra 11032	<input type="checkbox"/> One additional unit of Science	<input type="checkbox"/> Economics ½ unit 15060	<input type="checkbox"/> Physical Education ½ unit AND 08030
<input type="checkbox"/> English 12 05074		OR	OR	<input type="checkbox"/> Health ½ unit 18010
		<input type="checkbox"/> Biology 13020	<input type="checkbox"/> Problems of Democracy 1 unit 15201	
		<input type="checkbox"/> Chemistry 13031		
		<input type="checkbox"/> Physics 13042	Additional units may include:	
			<input type="checkbox"/> Civics	
			<input type="checkbox"/> Geography	
			<input type="checkbox"/> Psychology	
			<input type="checkbox"/> World History	

Career & Technical Education Electives		Extended Learning Opportunities	
Three units of foreign or Native American language, fine arts, or career and technical education are required to graduate.			
Trades, Industry and Technical Education	Family & Consumer Sciences Education	School-Based:	Community Based:
<input type="checkbox"/> Building Trades I 17100	<input type="checkbox"/> Housing/Living Environments 09133	<input type="checkbox"/> Skills USA	<input type="checkbox"/> Mentorship
<input type="checkbox"/> Building Trades II 17117		<input type="checkbox"/> TSA	<input type="checkbox"/> Volunteer
<input type="checkbox"/> Residential Plumbing 17120	Technology & Engineering Education	<input type="checkbox"/> FFA	<input type="checkbox"/> Part-time Employment
<input type="checkbox"/> Electrical Technology 17125	<input type="checkbox"/> Construction Technology 10111	<input type="checkbox"/> FCCLA	<input type="checkbox"/> Service-Learning Project
<input type="checkbox"/> Facilities Maintenance I 17110	<input type="checkbox"/> Design/Drafting 10259	<input type="checkbox"/> FBLA	<input type="checkbox"/> Job Shadow
<input type="checkbox"/> Facilities Maintenance II 17118	<input type="checkbox"/> Engineering Design 10415	<input type="checkbox"/> DECA	<input type="checkbox"/> Internship
<input type="checkbox"/> Heating, Ventilating and Air Conditioning 17112	<input type="checkbox"/> PLTW Introduction to Engineering Design 10511	<input type="checkbox"/> Career Research	
<input type="checkbox"/> Sheet Metal Technology 17115	<input type="checkbox"/> PLTW Civil Engineering and Architecture 10514	<input type="checkbox"/> Cooperative Work Experience	
<input type="checkbox"/> Drafting Technology I 17130	<input type="checkbox"/> Advanced Design Applications 10338		
<input type="checkbox"/> Drafting Technology II 17131			
<input type="checkbox"/> PLTW – Introduction to Engineering Design 10511			
<input type="checkbox"/> Architecture & Construction Cluster 37020			

North Dakota Architecture & Construction Related Postsecondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Construction	<input type="checkbox"/> Building Construction Technology (BJCC, NDSCS, TMCC) <input type="checkbox"/> Building Trades (SBC) <input type="checkbox"/> Carpentry (BSC, BJCC, CCCC) <input type="checkbox"/> Concrete Technology (TMCC) <input type="checkbox"/> Construction Management/Technology (NDSCS) <input type="checkbox"/> Electric Power Technology (BSC) <input type="checkbox"/> Electrical Technology (NDSCS, SBC, TMCC) <input type="checkbox"/> Heating, Ventilation & Air Conditioning (BSC, NDSCS, TMCC) <input type="checkbox"/> Lineworker-Electrical (BSC) <input type="checkbox"/> Plumbing (NDSCS, TMCC)	<input type="checkbox"/> Construction Engineering (NDSU) <input type="checkbox"/> Construction Management (NDSU, UM)	<input type="checkbox"/> Construction Management (NDSU)
Design/Pre-Construction	<input type="checkbox"/> Architectural Drafting and Estimating Technology (NDSCS) <input type="checkbox"/> CDL/Heavy Equipment (CCCC, SBC, TMCC, UTTC) <input type="checkbox"/> Land Surveying and Civil Engineering Technology (NDSCS) <input type="checkbox"/> Pre-Engineering transfer (CCCC, NHSC)	<input type="checkbox"/> Architecture (NDSU) <input type="checkbox"/> Civil Engineering (NDSU, UM, UND) <input type="checkbox"/> Construction Engineering (NDSU) <input type="checkbox"/> Landscape Architecture (NDSU)	<input type="checkbox"/> Architecture (NDSU) <input type="checkbox"/> Civil Engineering (NDSU)
Maintenance/Operations	<input type="checkbox"/> Electrical Transmission Systems Technology (BSC) <input type="checkbox"/> Mechanical Systems (NDSCS) <input type="checkbox"/> Mechanical Maintenance Technology (BSC)		

North Dakota Postsecondary Institutions Offering Architecture & Construction Related Programs

BSC	Bismarck State College	www.bismarckstate.edu	NHSC	Nueta Hidatsa Sahnish College	http://nhsc.edu
BJCC	Burdick Job Corps Center	http://quentinnburdick.jobcorps.gov	SBC	Sitting Bull College	www.sittingbull.edu
CCCC	Cankdeska Cikana Community College	www.littlehoop.edu	TMCC	Turtle Mountain Community College	www.tm.edu
NDSCS	ND State College of Science	www.ndscs.edu	UTTC	United Tribes Technical College	www.uttc.edu
NDSU	ND State University	www.ndsu.edu	UM	University of Mary	www.umary.edu
			UND	University of North Dakota	www.und.edu