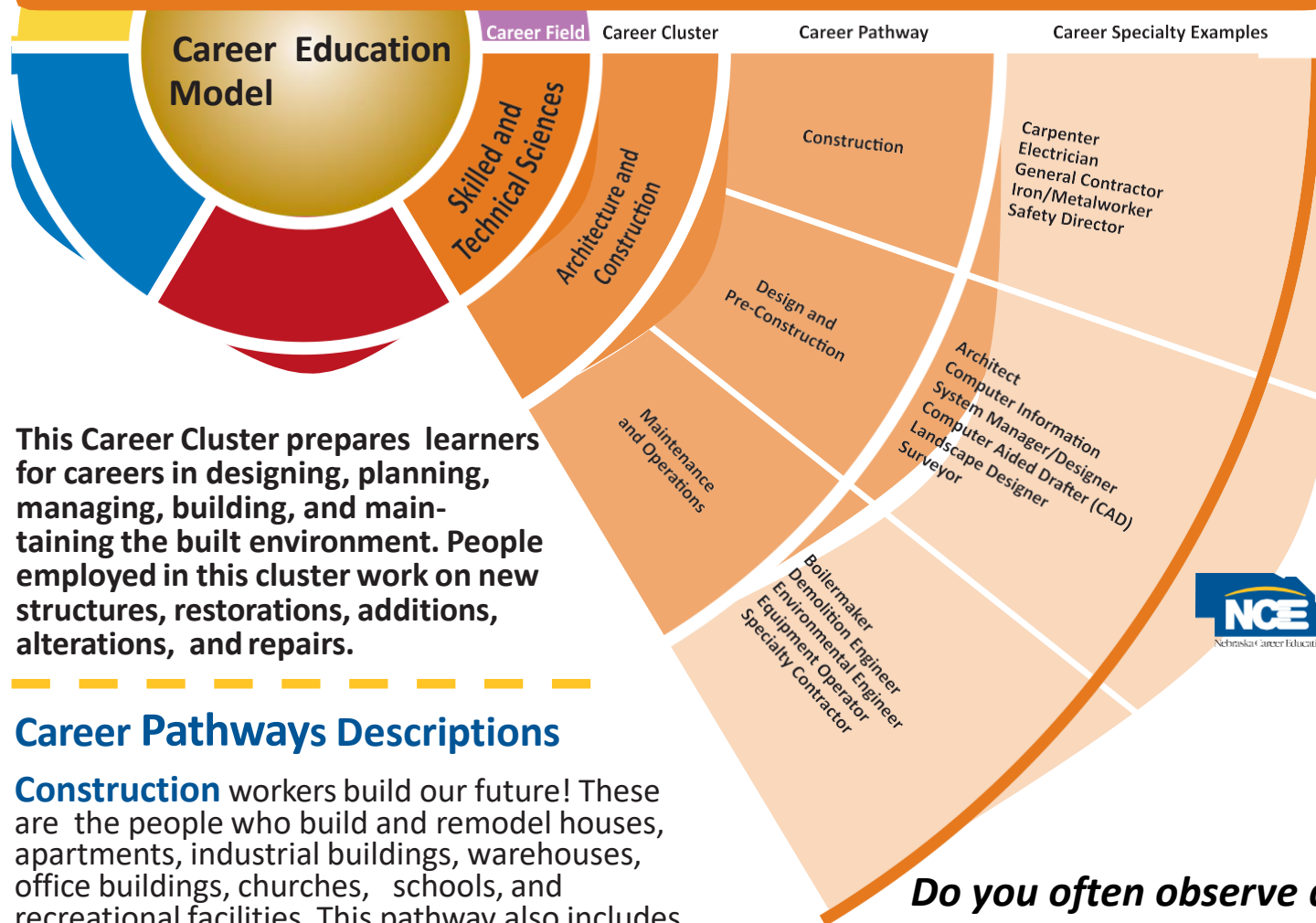


Career Cluster: Architecture and Construction



This Career Cluster prepares learners for careers in designing, planning, managing, building, and maintaining the built environment. People employed in this cluster work on new structures, restorations, additions, alterations, and repairs.

Career Pathways Descriptions

Construction workers build our future! These are the people who build and remodel houses, apartments, industrial buildings, warehouses, office buildings, churches, schools, and recreational facilities. This pathway also includes the builders of highways, streets, bridges, tunnels, and airports as well as power plants, chemical plants, refineries, and mills.

Design/Pre-Construction workers create our future. They turn a concept into a set of plans. Their plans guide other construction professionals as they continue the building process.

Maintenance Operations workers keep our future intact. These are the people who unload, inspect, and move new equipment into position. They determine the optimal placement of machines in a plant, assemble machinery, install machinery, repair machinery, and perform preventive maintenance. They detect, diagnose, and correct minor problems on machinery. They keep the structure of an establishment in good repair. They maintain the smooth operation of refineries, power plants, chemical plants, and mills. This pathway also includes the maintenance and repair of highways and roads.

- Do you often observe and note the buildings around you?*
- Do you like to work with your hands?*
- Can you visualize objects and projects in your mind?*
- Do you like to create models or make designs?*
- Do you like to work with tools, objects, and numbers?*
- Do you like to use both mental and manual skills to solve problems?*
- Do you like to work both alone and with others?*

<https://azcis.intocareers.org/VideoPlayer.aspx?VideoFileNum=00-000002>
2:41 minutes video on this career cluster (you must be logged into AZCIS to see video)

Occupations Examples

Levels of Education and Earnings*

* Data from AZCIS

	National Annual Median Wage	Arizona Annual Median Wage
Long-Term, On-the-Job Training (Over One Year)		
Bricklayers and Stonemasons	\$38,630 - \$47,950	\$29,420 - \$39,000
Carpenters	\$42,090	\$37,990
Cement Masons	\$37,740 - \$40,710	\$36,540
Drywall Installers	\$39,220	\$36,280
Electricians	\$51,880	\$46,310
Elevator Installers and Repairers	\$80,870	\$68,960
Energy Auditors	\$68,170	\$65,270
Explosives Workers	\$50,210	\$42,190
Insulation Installers	\$35,040 - \$43,610	\$29,780 - \$55,280
Line Installers and Repairers	\$52,920 - \$66,450	\$44,440 - \$81,910
Operating Engineers and Construction Equipment Operators	\$44,600	\$43,980
Painters	\$36,580	\$34,720
Plumbers and Pipefitters	\$50,620	\$46,700
Roofers	\$36,720	\$35,070
Structural Metal Workers	\$37,050 - \$50,490	\$31,850 - \$38,620
Tile Setters	\$39,400	\$35,370
Wallpaper Hangers	\$33,590	\$19,690
Postsecondary Vocational Training (Certificate or Diploma)		
Commercial Divers	\$50,470	not available
Heating and Cooling System Mechanics	\$45,110	\$41,680
Mapping Technicians	\$42,010	\$50,380
Associate Degree		
Drafters	\$50,710 - \$59,520	\$52,220 - \$58,370
Interior Designers	\$48,840	\$46,150
Bachelor's Degree		
Architects	\$76,100	\$78,440
Civil Engineers	\$82,220	\$75,320
Construction Managers	\$87,400	\$83,280
Cost Estimators	\$60,390	\$61,590
Geographic Information Systems Specialists	\$42,010	\$50,380
Landscape Architects	\$63,810	\$55,410
Work Experience Plus a Bachelor's or Higher Degree		
Surveyors	\$58,020	\$52,880
Wind Energy Project Managers	\$104,850	\$94,210



Career Plan of Study

Learner Name _____

Date _____

Learner Signature _____

Advisor Signature _____

Parent/Guardian Signature (if required) _____

This plan of study should serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9 th Grade	10 th Grade	11 th Grade	12 th Grade
High School	English I	English II	English III	English IV
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Trigonometry or Statistics	Trigonometry or Statistics
	Physical Science or Biology I	Biology I or Chemistry	Chemistry, or Physics	Physics or Environmental Science
	Geography/State History	World History	American History	Economics/Government
	Required Courses/Electives PE, Health, Art, Foreign Language, or Computer Technology	Required Courses/Electives PE, Health, Art, Foreign Language, or Computer Technology	Additional High School Electives Art Construction Technology I Construction Technology II Drafting and Design Technical Writing	Technology Center Electives AC, Heat and Refrigeration Carpentry Drafting CAD Masonry Plumbing
Career Electives TechConnect Construction Technology Education	Career Electives TechConnect Construction Technology Education			
Post-Secondary	Career and Technical College		Community College	College/University
	<ul style="list-style-type: none"> ☛ AC, Heat & Refrigeration ☛ Cabinetmaking ☛ Carpentry ☛ Construction Trades ☛ Drafting CAD ☛ Masonry ☛ Plumbing 		<ul style="list-style-type: none"> ☛ Construction Technology ☛ Drafting and CAD ☛ Engineering Technology ☛ Surveying 	<ul style="list-style-type: none"> ☛ Architecture ☛ Civil Engineering ☛ Construction Management ☛ Electrical Engineering ☛ Urban Planning
Career Enhancement Options	Work-based Learning Options		Short-Term Training Options	
	Job-Shadowing: Internship/Mentorship: On-The-Job Training: Apprenticeships:		<ul style="list-style-type: none"> ☛ Basic Residential Wiring ☛ Lockout/Tagout ☛ Safety Training ☛ Steel Framing ☛ Conversational Spanish 	