



## Pathway: Construction and Business Education

**Plan of Study: Industrial related Technologies and Business Education**

**Career Goal (O\*Net Code):** ) Carpenter ( 47-2031.01) , Electrician ( 47-2111.00) , Plumber ( 47-2152.02) , Architect ( 17-3011.01) Construction Manager (11-9021), Cost Estimator (13-1051), Civil Engineer (17-2051), Construction/Building Inspector (47-4011)

### Suggested High School Courses

High School * Default includes CDHE Higher Education Admission Requirements	9 <sup>th</sup>	Core Academic Courses*:	English I, Algebra I, Earth or Environmental Science, State History/Civics	Suggested Electives: Construction Math, Spanish
		Career Path Courses:	Architecture, CAD, introduction to woodworking	
	10 <sup>th</sup>	Core Academic Courses*:	English II, Geometry, Biology, US History, Foreign Language I	Suggested Electives: CAD, Introduction to building trades, and Architecture
		Career Path Courses:	Geometry, English 11	
	11 <sup>th</sup>	Core Academic Courses*:	English III, Algebra II/ or other, Chemistry	Suggested Electives: Introduction to building trades, CAD
		Career Path Courses:	AutoCAD, Advanced architecture, Introduction to building trades	
	12 <sup>th</sup>	Core Academic Courses*:	English IV, Trigonometry or other Math, Botany or other lab based science	Suggested Electives: Building Trades, School to work in a specific trade.
		Career Path Courses:	CAD, Building trades, School to work in specific trade	

### Secondary to Postsecondary Linkages & Certifications

Recognition for Advanced Learning	<b>Postsecondary Credit Options:</b> Insert Options Here: ACP, Dual Credit, PSEO, Fast College-Fast Jobs, Articulated Credit, Apprenticeship programs, trades programs, University credits towards Associate, Bachelor, and Masters programs in Engineering (Electrical, Structural, Environmental Etc.), Architecture, Business Management and other Construction related degree programs.
	<b>Industry Recognized Certificate(s) or License(s):</b> Apprenticeship certification, CNCC credits, hours, towards a journeyman trade, contractor, and/or Subcontractor licenses, and degrees in any Construction related field.

		Colorado Postsecondary Programs Available	Colorado Institutions	Entrance Exams/ Requirements
Postsecondary Education Opportunities	Certificate	Finish Carpentry, Framing, Plumbing, Welding, Blueprint reading, Architecture, Landscaping, Deck building, CAD	<a href="http://www.collegeincolorado.org">www.collegeincolorado.org</a> Mesa Stat, and Colorado Northwestern Community Colleges and several other CC's	High interest, HS, in progress or completion
	Associate Degree	Carpentry, Woodworking, Construction Technology, Plumbing, Welding Technology, Heating, Vent, Air Conditioning, Industrial Electrician, Electrical Technology, Computer Aided Drafting & Design (CAD), Facilities Maintenance Technology, Energy Maintenance Technology, Civil Engineering Technology	<a href="http://www.collegeincolorado.org">www.collegeincolorado.org</a> San Juan basin Technical College, IBEW Electrician Apprenticeship programs, and other Tech schools and trades programs	High interest, experience preferred
	Bachelor Degree	Degrees in Architecture, Electrical Engineering, Structural Engineering, Environmental Engineering, Business, and numerous other construction and/or business related degrees.	<a href="http://www.collegeincolorado.org">www.collegeincolorado.org</a> Colorado School of Mines, CSU, UC, all other colleges and Universities	College entrance exams, High GPA
	Graduate Degree	Electrical engineering, Structural Engineering, Architectural Design, and most of the other Bachelor programs listed above.	<a href="http://www.collegeincolorado.org">www.collegeincolorado.org</a> CSM, CSU, CU, and other Graduate programs	BS or BA

**Cluster Overview:** The **Architecture and Construction Career Cluster** prepares students for careers in designing, planning, managing, building and maintaining the built environment.

Extended Learning Experiences		
<b>Curricular Experiences:</b>  Skills USA, Job Corps, Jobs, School to work jobs, Habitat for humanities homes,	<b>Extracurricular Experiences:</b>  Job fairs, Workshops, summer camps, jobs	
<b>Work-Based Learning Experiences:</b>  Career Preparation – Paid and Unpaid, Job Shadowing, Internships, jobs, career workshops	<b>Program Accreditation and/or Professional Association(s):</b>  Association of Builders and Contractors, National Center for Construction, Education, and Research, International Brotherhood of Electrical Workers Apprenticeship programs	
<b>Service Learning Experiences:</b>  Local Habitat for Humanities building projects, jobs in construction, Work study with local contractors		
Career Options:		Salary Range:
<b>Certificate</b>	<b>Carpenters, Concrete Finishers, Floor Sander/Finishers Landscapers, Glaziers, Iron/Metal Workers, Painters, Roofers, Brickmasons, Welders</b>	<b>\$15K+ per year</b>
<b>Associate Degree</b>	<b>Independent Specialty Contractors, Mechanic Cost Estimators, Carpenters, Electricians, Maintenance Schedulers/Clerks, Engineering Technicians, HVAC Mechanics, Plumbers, Refrigeration Mechanics, Security Controls Managers</b>	<b>\$\$25K +per year</b>
<b>Bachelor Degree</b>	<b>Bs or BA in a career fields where there is a need for a structural Administrative Services Managers, Building Inspectors, Cost Estimators, Construction Managers, Environmental Engineers</b>	<b>\$\$\$55K + per year</b>
<b>Graduate Degree</b>	<b>Environmental Engineers, Civil Engineers, Urban &amp; Regional Planners, Instructors/Professors of Engineering</b>	<b>\$\$\$\$90K+ per year</b>

\* \$ = \$15-25,000; \$\$ = \$25-55,000; \$\$\$ = \$55-90,000; \$\$\$\$ = Above \$90,000

Ouray School District R-1 reference # 1098 There will be no discrimination on the basis of race, color, national origin, sex, disability or age in its programs or activities. Please direct inquiries to: SUPERINTENDENT/TITLE IX SANDRA J KERN P O BOX N OURAY 81427-0694 970/325-4505