



Pathway - Construction

Plan of Study - Construction

Career Goal (O*Net Code): Examples: Construction Manager (11-9021), Cost Estimator (13-1051), Civil Engineer (17-2051), Construction/Building Inspector (47-4011).

Credits required for graduation – 24

Suggested High School Courses				
High School * Default includes CDHE Higher Education Admission Requirements	9 th	Core Academic Courses*:	English 9 (1), Math: Suggested-Algebra (1), Earth Science (1), Civics (1), Fitness (.5), Health (.5) = 5	Suggested Electives: Foreign Lang. I Principles of Economics
		Career Path Courses:	Introduction to Business (.5), Invention & Design (.5) = 1	
	10 th	Core Academic Courses*:	English 10 (1), Math: Suggested-Geometry (1), Biology (1), Modern America (1), Fine Arts Elective: Suggested-Drawing (.5) = 4.5	Suggested Electives: Foreign Lang. II
		Career Path Courses:	Management (.5), Construction I (.5), Construction 2 (.5) = 1.5	
	11 th	Core Academic Courses*:	English 11 (.5), Speech/English Elec. (.5), Economics, (.5), Applied Arts: Suggested-Life Management (.5) = 2	Suggested Electives: Math Foreign Lang. III Principles of Tech I Technical Writing Environment Science
		Career Path Courses:	Business Technical Communications (.5), Technical Drawing (1) = 1.5	
	12 th	Core Academic Courses*:	English Elective/Speech (.5) = .5	Suggested Electives: Math Foreign Lang. IV Principles of Tech. II
		Career Path Courses:	Architectural Drawing (1), Housing & Interior Design I (.5), Housing & Interior Design II (.5), Manufacturing I (.5), Manufacturing II (.5) = 3	
			Total suggested high school courses = 19 credits Total suggested electives to meet 24 credit requirement = 5	

Secondary to Postsecondary Linkages & Certifications

Recognition for Advanced Learning	Postsecondary Credit Options: Invention & Design (Aims CC-CAD 100, 151), Technical Drawing (Aims CC-CAD 101,102), Architectural Drawing, (Aims CC-CAD 121, 122)
	Industry Recognized Certificate(s) or License(s): Contractor License required in some states Contractor Certifications include: American Institute of Contractors (AIC), Construction Specifications Institute (CIS)

	Postsecondary Programs Available in Colorado	Colorado Institutions	Entrance Exams/ Requirements
Postsecondary Education Opportunities	Certificate Carpentry, Fine Woodworking, Construction Technology, Plumbing, Welding, Heating, Vent, Air Conditioning, Refrigeration and Air Conditioning, Electrician Occupations, Electronics Technology, Property Maintenance Technician, Cabinet Making / Millwork, Electric Lines Worker, Computer Aided Drafting & Design (CAD), Glazier Apprenticeship, Painting Apprenticeship, Brick Layer Apprenticeship, Sheet metal Apprenticeship, Inside Electrician, Industrial Maintenance Technology, Facilities Maintenance Technology	AVS: Emily Griffith Opportunity School, Pickens Technical College, San Juan Basin Technical College Community Colleges/ Colleges: Aims CC, Arapahoe CC, Red Rocks CC, Morgan CC, Front Range CC, Mesa State, CC of Denver, Pueblo CC, Western Colorado CC, Pikes Peak CC, Colorado Northwestern CC, Trinidad State Jr. College	High School diploma/GED
	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	AVS: Emily Griffith Opportunity School, Pickens Technical College, San Juan Basin Technical College Community Colleges/Colleges: Aims CC, Arapahoe CC, Red Rocks CC, Morgan CC, Front Range CC, Mesa State, CC of Denver, Pueblo CC, Western Colorado CC, Pikes Peak CC, Colorado Northwestern CC, Trinidad State Jr. College	High School diploma/GED

Bachelor Degree	Geography - Urban Studies & Planning, Construction Management, Architectural Engineering, Architecture, Entrepreneurship and Small Business Management, Engineering Management, Civil, Electrical, Environmental & Mechanical Engineering	For more information about colleges that have these programs go to www.CollegeinColorado.org	See each school's Admissions website.
Graduate Degree	Urban & Regional Planner, MURP, Urban Design, MUD, Architecture, M. Arch., Construction Management, MS, Civil, environmental, architectural engineering, MS, ME, PhD, Engineering Management, MS, PhD, Engineering Management	For more information about colleges that have these programs go to www.CollegeinColorado.org	See each school's Admissions website.

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

<p>Curricular Experiences: Examples: SkillsUSA Technology Student Association Project Design Team</p> <p>Work-Based Learning Experiences: Career Preparation – Paid and Unpaid, Job Shadowing, Internships</p> <p>Service Learning Experiences: Example: Habitat for Humanity</p> <p>Extracurricular Experiences: Examples: Association of General Contractor Conferences Architectural/Engineering Summer Camps Home Tours Historic Building Tours Student Council National Center for Craftsmanship – Deconstruct Project</p>	<p>Program Accreditation and/or Professional Association(s): Examples: American Institute of Contractors, American Welding Society, Associated Builders and Contractors, Associated General Contractors, Construction Management Association, Design Build Institute of America, Mechanical Electrical Contractors of America, National Association of Homebuilders, National Electrical Manufacturers Association, Society of Women in Construction, National Center for Craftsmanship</p>
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Career Options:

Salary Range:

Certificate	Carpenters, Concrete Finishers, Floor Sander/Finishers Landscapers, Glaziers, Iron/Metal Workers, Painters, Roofers, Brickmasons, Welders	\$\$
Associate Degree	Independent Specialty Contractors, Mechanic Cost Estimators, Carpenters, Electricians, Maintenance Schedulers/Clerks, Engineering Technicians, HVAC Mechanics, Plumbers, Refrigeration Mechanics, Security Controls Managers	\$\$
Bachelor Degree	Administrative Services Managers, Building Inspectors, Cost Estimators, Construction Managers, Environmental Engineers	\$\$\$
Graduate Degree	Environmental Engineers, Civil Engineers, Urban & Regional Planners, Instructors/Professors of Engineering	\$\$\$ - \$\$\$\$
		\$\$\$

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

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