

HIGH SCHOOL PLANNER




ARCHITECTURE & CONSTRUCTION

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

HIGH SCHOOL	9th	10th	11th	12th	
	Core Requirements		Core Requirements		
	English 9 Secondary Math 1 Science World Geography	English 10 Secondary Math 2 Science World Civilizations	English 11 Secondary Math 3 (PreCalculus) Science U.S. History	English 12 Calculus or Statistics American Gov. & Citizenship	
	Required Electives				
	PE, The Arts, CTE, Computer Tech., Health, Financial Literacy				
	Career Electives (Choose Three Credits)				
	9th	10th	11th	12th	
	Intro to Engineering Design Principals of Engineering Design Technology (Drafting) Wood Working Construction Trades Foundation Construction Technology	Intro to Engineering Design Principals of Engineering Design Technology (Drafting) Wood Working Electrical Trades Home Building/Carpentry Plumbing	Design Technology (Drafting), Interior Design, Cabinet Making, Home Building/Carpentry, Electrical, Plumbing, Wood Working		
Career Enhancement Options	GTI	STATE CTE CAREER PATHWAYS		Work Based Learning	CTSO Participation
	Principles of Engineering Intro to Engineering Design Engineering Design and Development Computer Integrated Manufacturing Electrical Trades Plumbing Home Building/Carpentry	The state CTE Skilled & Technical Sciences pathway has the following study plans to consider: BUILDING TRADES: Carpentry, Electrician, Heating, Air Conditioning, Refrigeration, Plumbing; PRECISION TRADES: Cabinet Making/Millwork, Design Technology (formerly drafting) For more information see: http://www.schools.utah.gov/cte/sts/		See your Career Center Coordinator for information about Job-Shadowing Internship Apprenticeships especially in plumbing and electrician Seminars	You are strongly advised to actively participate in Career and Technical Student Organizations. The CTSO for Architecture and Construction is Skills USA
Post Secondary	Slcc School of Applied Technology		TECH TRAINING/ASSOC. DEGREE (SLCC)		College/University
	Graphic Designer Air Conditioning/ Heating/ Refrigeration see: www.slcc.edu/sat		Architectural Technology, Building Construction, Construction Management, Structural/Civil Design, Design Technology, Surveying, AC, Heat & Refrigeration. For information: www.slcc.edu		Architecture, Civil Engineering, Construction Management, Electrical Engineering, Landscape Architecture, Urban Planning. Find schools offering programs of study in UtahFutures.



Careers in designing, planning, managing, building and maintaining the built environment.

Sample Career Specialties / Occupations	<p>Architect • Architectural and Civil Drafter • Drafter • Regional and Urban Planner/Designer • Industrial Engineer • Materials Engineer • Mechanical Drafter • Environmental Designer • Civil Engineer (structural, geotechnical, transportation, etc.) • Programmer • Mechanical Engineer (HVAC, plumbing, fire protection, etc.) • Electrical Engineer (electronics, security, telecommunications) • Preservationist • Environmental Engineer (hydro engineering, acoustical, etc.) • Landscape Architect • Surveyor • Fire Prevention and Protection Engineer • Cost Estimator • Electrical and Electronic Engineering Technician • Civil Engineering Technician • Environmental Engineering Technician • Surveying and Mapping Technician • Interior Designer • Landscape Designer • Specifications Writer • Building Code Official • Computer Aided Drafter (CAD) • Renderer (traditional and computer) • Modeler (traditional and computer)</p>	<p>General Contractor/Builder • Specialty Contractor • Construction Engineer • Construction Manager • Superintendent • Project Manager • Construction Foreman • Estimator • Project Inspector • Manufacturer's Representative • Sales and Marketing Manager • Equipment and Material Manager • Scheduler • Education and Training Director/Coordinator • Safety Director • Construction Inspector • Subcontractor • Preservationist • Service Contractor • Field Supervisor • Specialty Trades Subcontractor • Mason • Construction Craft Laborer • Iron/Metalworker (structural and reinforcing) • Carpenter • System Installer • Electrician • Boilermaker • Electronic Systems Technician • Sheetmetal Worker • Security and Fire Alarm Systems Installer • Concrete Finisher • Glazier • Tile and Marble Setter • Landscaper/Groundskeeper • Elevator Installer • Roofer • Painter • Explosives Worker • Plasterer/Drywall • Paperhanger • Insulation Worker • Drywall Installer • Plumber • Pipe Fitter • Millwright • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Carpet Installer • Electrician • Steamfitter • Terrazo Worker and Finisher</p>	<p>General Maintenance Contractor • Specialty Contractor • Construction Engineer • Construction Manager • Superintendent • Project Manager • Construction Foreman • Estimator • Facilities Engineer • Reliability Engineer • Environmental Engineer • Demolition Engineer • Project Inspector • Operating Engineer • Manufacturer's Representative • Sales and Marketing Manager • Equipment and Material Manager • Scheduler • Maintenance Planner/Scheduler • Maintenance Estimator • Security Controls Manager • Preservationist • Remodeler • Safety Director • Construction Inspector • Subcontractor • Service Contractor • Field Supervisor • Specialty Trades Subcontractor • Mason • Iron/Metalworker (structural and reinforcing) • Carpenter • System Installer • Electrician • Boilermaker • Cost Estimator • Sheetmetal Worker • Security and Fire Alarm System Installer • Concrete Finisher • Glazier • Tile and Marble Setter • Hazardous Materials Remover • Landscaper/Groundskeeper • Elevator Installer • Paperhanger • Insulation Worker • Drywall Installer • Insulation Worker • Plumber • Pipe Fitter • Millwright • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Carpet Installer • Electrician • Steamfitter • Terrazo Worker and Finisher • Refractory Technician • Hydro Testing Technician • Thermal Control Technician • Restoration Technician • Wastewater Maintenance Technician • Highway Maintenance Worker</p>
Pathways	<p>Design/Pre-Construction</p> 	<p>Construction</p> 	<p>Maintenance/Operations</p> 
Cluster K&S	<p>Cluster Knowledge and Skills</p> <ul style="list-style-type: none"> ◆ Academics ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills 		