



Maintenance/Operations

Career Goal (O*NET Code): Construction Manager (11-9021), Independent Specialty Contractor (47-2000), Mechanic (49-9021), Cost Estimator (13-1051), Civil Engineer (17-2051), Environmental Engineer (17-2081), Administrative Services Manager (11-3011).

Cluster Overview: The Architecture & Construction Cluster focuses on careers in designing, planning, managing, building and maintaining the built environment.

SUGGESTED COURSEWORK

EXTENDED LEARNING EXPERIENCES

High School	9th	Core Courses:	English I Algebra I Biology	World Geography Languages other than English I Health/PE or Equivalent	Curricular Experiences: SkillsUSA TSA	Extracurricular Experiences: Association of General Contractor Conferences Architecture/Engineering Summer Camps Home Tours Historic Building Tours Student Council
		Career-Related Electives:	Construction Systems or Introduction to Construction Careers			
	10th	Core Courses:	English II Geometry Chemistry	World History Languages other than English II Technology Applications		
		Career-Related Electives:	Architectural Drafting I or Architectural Graphics or Home Maintenance & Improvement or Building Maintenance I* or Drafting I or Technology Systems **			
	11th	Core Courses:	English III Algebra II Physics	United States History Communication Applications PE or Equivalent		
Career-Related Electives:		Building Trades I* or Architectural Drafting II* or Career Preparation* or Building Maintenance II*				
12th	Core Courses:	English IV Precalculus Environmental Systems	Government/Economics Fine Arts			
	Career-Related Electives:	Building Trades II* or Career Preparation*				
On-the-Job Training		Heating, Ventilation, Air Conditioning Cabinetmaking/Millworking Carpentry Construction Trades	Drafting/CAD Electrical Trades Floor Sanding/Finishing Glazing Security Systems	Masonry Painting Plumbing Roofing Welding/Metal Trades		Professional Associations: American Institute of Architects American Institute of Contractors Associated Builders and Contractors Associated General Contractors Design Build Institute of America Mechanical Electrical Contractors of America National Association of Homebuilders Society of Women in Construction Texas Society of Architects
	Certificates	Carpenter Apprenticeship National Center for Construction Education and Research- Construction Trades	OSHA CareerSafe National Occupational Competency Testing Institute-Construction Trades			
Postsecondary	Associate's Degrees	15 hours Core Curriculum Commercial/Industrial Blueprint Reading (CNBT 2X10) Industrial Mathematics (TECM 1X01) Mechanical, Plumbing & Electrical Systems in Construction I (CNBT 1X02) Mechanical, Plumbing & Electrical Systems in Construction II (CNBT 2X40) Cooperative Education-Business/Commerce, General (BUSG 1X80) Air Conditioning Control Principles (HART 1X03)		Electrical Testing and Maintenance (ELPT 2X47) Integrated Software Applications I (ITSC 1X09)	Career Options: Brickmason Carpenter Electrician Maintenance Scheduler/Clerk	Engineering Technician HVAC Mechanic Plumber Refrigeration Mechanic Security Controls Manager
	Bachelor's Degrees	Architectural Engineering Architecture Engineering Construction Science/Management			Career Options: Administrative Service Manager Building Inspector Construction Manager	Cost Estimator Environmental Engineer
	Graduate Degrees	Engineering Construction Science/Management Management			Career Options: Civil Engineer Instructor/Professor Environmental Engineer	
					Licenses, Certifications & Credentials- None identified.	

*May substitute for the required credit for Physical Education
**Satisfies the required credit for Technology Applications
***May substitute for the required credit for Health Education

Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated courses, if possible.

This plan of study serves as a guide, along with other career planning materials, for pursuing a career path and is based on the most recent information as of 2007. All plans should meet high school graduation requirements as well as college entrance requirements. Students may select other elective courses for personal enrichment purposes.