



Maintenance/Operations

Cluster Overview: Focuses on careers in designing, planning, managing, building and maintaining the built environment.

Career Goal (O*NET Code): Maintenance and Repair Workers (49-9042), Independent Specialty Contractor (47-2000), Administrative Services Manager (11-3011), Janitors and Cleaners (37-2011), General and Operations Manager (Facilities 11-1021).

Student Name: _____

Grade: _____

School: _____

SUGGESTED COURSEWORK

EXTENDED LEARNING EXPERIENCES

Middle School	8th	HS Courses:	Exploring Construction Technology
	9th	Core Courses:	English I Algebra I or Geometry Biology
		Career-Related Electives:	World Geography Languages other than English I Physical Education
High School	10th	Core Courses:	Principles of Architecture and Construction
		Career-Related Electives:	English II Geometry or Alg II Chemistry
	11th	Core Courses:	World History Languages other than English II
		Career-Related Electives:	English III Algebra II or Pre-Cal Physics or Princ of Technology
12th	Core Courses:	United States History Professional Communications	
	Career-Related Electives:	Advanced Construction Technology	
	12th	Core Courses:	English IV Alg III, Pre-Calculus, or AP Calculus Science Elective
		Career-Related Electives:	Government/Economics Fine Arts Practicum in Construction Management
On-the-Job Training		Heating, Ventilation, Air Conditioning Cabinetmaking/Millworking Carpentry	Drafting/CAD Electrical Trades Floor Sanding/Finishing Glazing
			Masonry Painting Plumbing Roofing
Certificates		NOTE: These experiences may be started and/or completed as part of the high school experience.	
		Carpenter Apprenticeship Construction Trades	National Occupational Competency Testing Institute-Construction Trades OSHA CareerSafe
Postsecondary	Associate Degrees	Construction Technology Construction Management Drafting and CAD	Engineering Technology Plumbing/HVAC Surveying Welding
	Bachelor Degrees	Architectural Engineering Architecture	Construction Engineering Science/Management
	Graduate Degrees	Construction Engineering	Management Science/Management

<p>Curricular Experiences:</p> <p>SkillsUSA</p>	<p>Extracurricular Experiences:</p> <p>Architecture/Engineering Summer Camps Historic Building Tours Home Tours Language Immersion Programs Student Government UIL Academic Competitions Yearbook</p>
<p>Career Learning Experiences:</p> <p>Apprenticeship Career Preparation Job Shadowing Internship</p>	<p>Service Learning Experiences:</p> <p>Campus Service Organizations Community Service Volunteer Habitat for Humanity Peer Mentoring / Peer Tutoring</p>

COLLEGE CREDIT OPPORTUNITIES -- High School

Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated courses (Tech Prep), if possible. List those courses that count for college credit on your campus.

<p>Professional Associations:</p> <p>American Institute of Architects American Institute of Contractors American Society of Heating, Refrigerating, and Air-Conditioning Engineers American Subcontractors Associations Associated Builders and Contractors Associated General Contractors of America Design Build Institute of America Mechanical Contractors of America National Association of Homebuilders National Association of Women in Construction Texas Association of Builders Texas Society of Architects</p>
<p>Career Options:</p> <p>Carpenter/Painter Concrete Finisher</p> <p>Grounds Keeper/Landscaper Glazier Iron/Metal Worker</p>
<p>Career Options:</p> <p>Brickmason/Carpenter/Electrician Maintenance Scheduler/Clerk</p> <p>Engineering Technician Plumber Refrigeration Mechanic</p>
<p>Career Options:</p> <p>Administrative Service Manager Cost Estimator</p> <p>Construction & Building Inspector Environmental Engineer</p>
<p>Career Options:</p> <p>Civil Engineer Instructor/Professor</p> <p>Environmental Engineer</p>

Students may select other elective courses for personal enrichment purposes.

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 2009. All plans meet high school graduation requirements as well as college entrance requirements.