



Transportation Systems/Infrastructure Planning, Management & Regulations

Career Goal (O*NET Code): Urban and Regional Planner (19-3051), Civil Engineer (17-2051), Surveying and Mapping Technician (17-3031), Inspector (Rail, Water, Motor vehicle, Public transit, Environmental compliance) (53-6051), Air Traffic Controller (53-2021).

Cluster Overview : The Transportation, Distribution, and Logistics Cluster focuses on careers in the planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

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	<p>Curricular Experiences: Business Professionals of America DECA Future Business Leaders of America SkillsUSA TSA</p> <p>Career Learning Experiences: Career Preparation (Paid/Unpaid) Internships Job Shadowing</p>	<p>Extracurricular Experiences: UIL Student Council Engineering Summer Camps</p> <p>Service Learning Experiences: Habitat for Humanity Volunteer Centers Community Organizations Tutoring/Mentoring Programs</p>	
		Career-Related Electives:	Introduction to Transportation Service Careers				
	10th	Core Courses:	English II Geometry Chemistry	World History Languages other than English II Technology Applications			
		Career-Related Electives:	Technology Systems (Modular Based Lab)** or Principles of Marketing or Introduction to Business				
	11th	Core Courses:	English III Algebra II Physics	U.S. History Communication Applications PE or Equivalent			
		Career-Related Electives:	Business Communications or International Business or Accounting I or Career Preparation*				
	12th	Core Courses:	English IV Precalculus Environmental Systems	Government/Economics Fine Arts			
		Career-Related Electives:	Career Preparation* or Accounting II or Business Management or Business Ownership or Business Law or Banking and Finance				
	On-the-Job Training						
		Certificates	OSHA CareerSafe				<p>Career Options: Engineering Technician Geotechnical Assistant</p>
NOTE: Students may earn some of these certificates as part of the high school experience.							
Postsecondary	Associate's Degrees	15 hours General Education Core			<p>Career Options: Surveying/Mapping Technician Environmental Compliance Motor Vehicle Inspector</p> <p>Certifications, Licenses & Credentials Certification in Transportation and Logistics (CTL) Custom Broker License</p>	<p>Professional Associations: American Society of Civil Engineers American Society of Transportation & Logistics, Inc. APICS - The Educational Society for Resource Management Council of Supply Chain Management Professionals Institute of Industrial Engineers Institute of Transportation Engineers Material Handling Equipment Distributors Association Material Handling Industry of America National Association of Wholesaler-Distributors SOLE - The International Society of Logistics Southwest Warehouse and Transfer Association</p>	
		Cluster Foundation					
		Business Computer Applications (BCIS 1X05) OR Micro-Computer Applications (COSC 1X01) OR Introduction to Computers (ITSC 1X01)					
		OSHA Regulations General Industry (OSHT 2X01) OR Introduction to Safety and Health (OSHT 1X01)					
		Principles of Management (BMGT 1X03) OR Supervision (BMGT 1X01) OR Problem Solving and Decision-Making (BMGT 1X03)					
		Human Relations (HRPO 1X11) OR Communication Skills for Managers (BMGT 1X45) OR Customer Relations (MRKG 1X01)					
		Introduction to Business Logistics (LMGT 1X19) OR Logistics (INMT 1X36)					
		Introduction to Materials Handling (LMGT 1X21) Business Ethics (BMGT 1X41)					
		Warehouse and Distribution Management (LMGT 1X25)					
		Practicum OR Internship (BMGT OR LMGT)					
Information and Project Management (BMGT 1X09)							
Quality Assurance and Quality Control (EPCT 1X51)							
POS Specific Courses							
Federal Motor Carrier Safety Regulations (CVOP 2X01) DOT Regulations- HAZMAT (EPCT 2X00)							
Domestic and International Transportation Management (LMGT 1X23) Purchasing (BMGT 1X23)							
Principles of Traffic Management (LMGT 2X34) Import Custom Regulations (IBUS 2X45)							
Economics of Transportation and Distribution (LMGT 1X45) Introduction to GIS (GISC 1X11)							
Environmental Regulation and Interpretation and Application (EPCT 1X49)							
Fundamentals of Logistics with Geographic Information Systems (GISC 2X03)							
Bachelor's Degrees	Accounting	Mechanical Engineering		<p>Career Options: Air Traffic Controller Aviation Inspector Civil Drafter</p>	<p>Marine Cargo Inspector Public Transportation Inspector Traffic Technician</p>		
	Business Management	Environmental Design					
	Business Statistics	International Business					
Graduate Degrees	Accounting	Environmental Design		<p>Career Options: Civil Engineer Marine Cargo Inspector Professional Engineer</p>	<p>Urban/Regional Planner Urban/Regional Planning Consultant</p>		
	Business Management	International Business					
	Business Statistics	Urban/Regional Planning					
	Mechanical Engineering						

*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.