Transportation, Distribution and Logistics

Pathway: Transportation Systems/Infrastructure Planning, Management and Regulations

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
TRPE01.01	Transportation Systems/Infra-structure Planning, Management and Regulations	#8: Transportation Infrastructure	Plan and maintain public transportation infrastructure.	Develop plans for new, improved or discontinued public transportation infrastructure (e.g., highways, airports, train terminals, ports, intermodal facilities).	Analyze changing customer/market needs and requirements.
					Explain local, state and federal political influences and impact on requirements.
					Determine the key features and capabilities of public infrastructure to meet these requirements.
					Develop projections of the demand for and utilization of infrastructure.
					Evaluate the costs and benefits of public transportation infrastructure including environmental, economic, and social impacts.
					Develop plans for transportation infrastructure including reports and land and infrastructure maps and drawings and related design documents.
					Present and explain plans (e.g., public meeting).
				Develop plans to maintain transportation infrastructure.	Review and analyze maintenance requirements of infrastructure.
					Monitor and analyze the usage and conditions of transportation infrastructure.
					Develop maintenance plans including schedules, material and labor requirements and budgets.
					Present and explain plans (e.g., business meeting).

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TRPE01.02	Transportation Systems/Infra-structure Planning, Management and Regulations	#7: Transportation Services	Plan and manage public transportation services.	Develop plans for new, improved or discontinued transportation services including public transportation services.	Analyze changing customer/market needs and requirements.
					Determine the key features and capabilities of services to meet requirements.
					Develop projections of the demand for and utilization of services.
					Evaluate the costs and benefits of public transportation services (including economic, social, environmental).
					Develop plans for public transportation services including projected routes and schedules and related infrastructure and equipment requirements.
					Present and explain plans (e.g., public meeting).
				Monitor and report on the performance of public transportation operations.	Develop performance measures and determine data requirements for monitoring performance.
					Collect and organize performance data in database.
					Establish performance targets/standards for monitoring performance.
					Analyze performance relative to targets/standards and identify performance problems.
					Document and report system performance trends and problems using graphs/charts (e.g. reports, memos).
					Present and explain information on performance (e.g., business meetings).

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Develop strategies to improve service levels and quality and reduce costs.	Determine performance gaps and improvement opportunities (e.g., on schedule, ridership, capacity utilization, costs).
					Identify and evaluate causes of performance gaps.
					Identify and evaluate potential solutions (e.g. routing, scheduling, equipment upgrades, operator training).
					Determine most appropriate solutions.
					Document causes and recommended solutions in written reports.
					Present and explain proposed solutions (e.g., business meetings).
TRPE01.03	Transportation Systems/Infra-structure Planning, Management and Regulations	#9: Transportation Systems Management	Transportation system management.	Develop plans to improve system utilization and traffic flow.	Collect and analyze system utilization and traffic flow data.
					Determine major problem areas (e.g., delays, travel times, congestion).
					Identify and evaluate alternative solutions.
					Develop plans to improve system performance.
					Present and explain plans (e.g., public meetings).

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Develop plans to improve safety and environmental performance of carriers and safety conditions in transportation systems.	Analyze the safety and environmental performance of carriers and safety conditions in transportation systems.
					Determine major problem areas (e.g., hazardous materials, accident rates).
					Identify and evaluate alternative solutions.
					Develop plans to improve safety and environmental performance.
					Present and explain plans (e.g., public meetings).

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