Distribution and Logistics

Course Description

Distribution and Logistics is a study of the acquisition, storage, use, packaging, transportation and distribution of materials and products. Topics covered include: product receiving and storage, order processing, packaging, shipping, inventory control, quality control, tracking operations, and material handling safety.

Course Code:

Program(s) of Study to which This Course Applies

- Logistics Planning and Management

Course Framework	Reference Standards	Academic Crosswalk
Standard 1. Students will explain product receiving and storage operations.	KS (TRPB01.01.01) KS (TRPB01.01.06) KS (TRPB01.01.08)	
Benchmark 1.1 The student will explain essential receiving activities and procedures for handling inbound trucks. <u>Sample performance indicators:</u> • Produce a list of sequential product receiving steps. • Explain correct load and security condition s before loading.	KS (TRPB01.01.01)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 1.2 The student will identify standard product deliver documents. <u>Sample performance indicators:</u> • Compare and contrast the different deliver documents. • Identify the three primary purposes of a bill of lading. • Identify what is included on an air waybill.	KS (TRPB01.01.08)	MA12.1.3 (1) CCSS: MA(N-CN) (1) LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 1.3 The student will identify destination, direction, and storage options of	KS (TRPB01.01.06)	MA12.2.4 (1)

unloaded products. Sample performance indicators: • Identify key issues affecting how products are stored. • Identify forms in which products are stored. • Compare and contrast storage options.		CCSS: MA(G-MG) LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Standard 2. Students will explain order processing, packaging and shipping.	KS (TRPB01.01.01) KS (TRPB01.01.06) KS (TRPB01.02.01) KS (BAPE05.01.07)	
Benchmark 2.1 The student will explain order cycle practices. <u>Sample performance indicators:</u> • Explain order processing. • Compare and contrast area, zone, and multi-order systems.	KS (TRPB01.01.01) KS (BAPE05.01.07)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 2.2 The student will identify process for improving accuracy and efficiency. <u>Sample performance indicators:</u> • Compare and contrast order-picking processes in relation to accuracy and efficiency. • Explain issue pack optimization. • Explain bar codes.	KS (TRPB01.02.01)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 2.3 The student will demonstrate staging techniques for pulled products for shipping. <u>Sample performance indicators:</u> • Demonstrate preparations for dispatch. • Explain marshaling. • Explain the importance of inbound-outbound staging.	KS (TRPB01.01.06)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 2.4 The student will identify proper packaging and labeling. <u>Sample performance indicators:</u> • Explain the different levels of packaging. • Identify the different factors to be considered when choosing packaging. • Describe basic label information.	KS (RPB01.01.07)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 2.5 Demonstrate accuracy when verifying orders and shipments.	KS (TRPB01.01.01)	LA12.1.5.b (1)

Sample performance indicators: • Demonstrate correct verification processes. • Identify the correct packaging verification criteria.		LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Standard 3. Students will explain inventory control and quality control principles.	KS (TRPB01.02.01) KS (APE05.01.04) KS (BAPE05.01.06)	
Benchmark 3.1 The student will explain the fundamentals of inventory control systems. Sample performance indicators: • Identify the different types of inventory. • Explain Just-in-Time Inventory Control. • Explain what a Warehouse Management System does. • Explain reverse inventory control (returns.)	KS (TRPB01.02.01) KS (BAPE05.01.04)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 3.2 The student will explain the fundamentals of quality controls systems. Sample performance indicators: • Explain Total Quality Management. • Explain the Six Sigma/Lean Management strategies.	KS (TRPB01.02.01) KS (BAPE05.01.06)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Standard 4. Students will explain safety principles and safe material handling and equipment operations.	KS (TRPB01.01.07) KS (BAPE01.01.02)	
Benchmark 4.1. The student will identify principal federal safety organizations and requirements. Sample performance indicators: • Explain OSHA's role in distribution. • Explain FAA's role in transportation. • Compare and contrast the other federal agencies that have responsibilities related to the safe handling and movement of materials.	KS (TRPB01.01.07 KS (BAPE01.01.02	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 4.2 The student will identify and demonstrate basic safe material handling practices. Sample performance indicators: • Identify safety issues related to manual material handling.	KS (TRPB01.01.07)	SC12.1.1.d (1) LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)

• Demonstrate safe lifting practices. • Identify and demonstrate proper use of PPE. • Create and demonstrate a safe and orderly work environment.		
Benchmark 4. 3 The student will identify and demonstrate safe handling of hazardous materials. <u>Sample performance indicators:</u> • Identify and explain hazmat classification classes. • Identify and demonstrate proper loading and unloading procedures for each hazmat classification class.	KS (TRPB01.01.07) KS (BAPE01.01.02)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Standard 5. Students will explain dispatch and tracking operations.	KS (TRPB01.01.08 KS (TRPB01.01.02) KS (BAPE04.01.01)	
Benchmark 5.1. The student will identify and explain different types of shipping documentation. <u>Sample performance indicators:</u> • Identify and explain the different types of shipping manifests. • Explain dispatching.	KS (TRPB01.01.08)	LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)
Benchmark 5.2. The student will identify and explain different cargo tracking systems. <u>Sample performance indicators:</u> • Explain the function of a yard management system. • Explain and identify the different tracking systems used today. • Explain how a RFID system works.	KS (TRPB01.01.02) KS (BAPE04.01.01)	
Benchmark 5.3 The student will explain intermodal transportation. <u>Sample performance indicators:</u> • Explain the purpose of ISO containers are used. • Identify and explain the different intermodal vehicles. • Explain the difference between duties and tariffs.	KS (TRPB01.01.02)	MA12.2.5 (1) LA12.1.5.b (1) LA12.1.6.d (1) LA12.1.6.f (1) LA12.2.2.c (1)

Reference Standards Sources

- KS = Career Clusters Knowledge and Skills Statements. Revised 2008. National Career and Technical Education Foundation, Silver Spring, MD. www.careerclusters.org.

Creation date: July 23, 2010

Approval date:

Revision date *(if changes made after final draft)*:

Other Information

Suggestions for innovative teaching and learning strategies:	
Related assessments:	
Extended learning opportunities:	