Degree Credit [X] Non Credit [] Nondegree Credit [] Comm Service []

Riverside Community College District Integrated Course Outline of Record

Business 85

BUS-85: Warehouse Management

College: R____M___N_X_ Lecture Hours: 54 Lab Hours: 0 Units:3.00

COURSE DESCRIPTION

Prerequisite: None.

Introduction to an integrated logistics approach to warehouse management. Includes the role of warehousing within the supply chain, performance metrics, applicable leadership basics, how to interact with other logistics managers to optimize overall activity, as well as principles of warehouse location, design, layout, operating functions, and customer service. 54 hours lecture. (Letter Grade, or Pass/No Pass option.)

SHORT DESCRIPTION FOR CLASS SCHEDULE

Introduction to an integrated logistics approach to the management of warehousing within the supply chain.

ENTRY SKILLS

None.

STUDENT LEARNING OUTCOMES

Upon successful completion of the course, students should be able to:

Explain the reasons for warehousing in the supply chain.

- Application of Knowledge Maintain and transfer academic and technical skills to workplace
- Application of Knowledge Be life-long learners, with ability to acquire and employ new knowledge

• Breadth of Knowledge - Understand the basic content and modes of inquiry of the major knowledge fields

Develop performance metrics for warehouse functions, automation, and safety.

- Information Skills Locate, evaluate and use information effectively
- Breadth of Knowledge Use the symbols and vocabulary of mathematics to solve problems and communicate the results
- Critical Thinking Recognize and assess evidence from a variety of sources
- Critical Thinking Analyze and solve complex problems across a range of academic and everyday contexts
- Application of Knowledge Maintain and transfer academic and technical skills to workplace

Understand leadership basics applicable to warehousing, and tradeoffs to consider before making decisions.

- Critical Thinking Analyze and solve complex problems across a range of academic and everyday contexts
- Critical Thinking Consider and evaluate rival hypotheses
- Critical Thinking Recognize and assess evidence from a variety of sources
- Global Awareness Participate in constructive social interaction
- Global Awareness Demonstrate teamwork skills
- Global Awareness Demonstrate understanding of alternative political, historical and cultural viewpoints
- Application of Knowledge Maintain and transfer academic and technical skills to workplace
- Communication Skills Listen thoughtfully and respectfully to the ideas of others

Identify the basic principles of warehouse location, design, layout, core operating functions, and customer service.

- Application of Knowledge Be life-long learners, with ability to acquire and employ new knowledge
- Application of Knowledge Maintain and transfer academic and technical skills to workplace
- Breadth of Knowledge Understand the basic content and modes of inquiry of the major knowledge fields
- Critical Thinking Analyze and solve complex problems across a range of academic and everyday contexts
- Critical Thinking Recognize and assess evidence from a variety of sources
- Critical Thinking Consider and evaluate rival hypotheses

Explain the need to optimize over all logistics expenses, not minimize in a specific activity such as warehousing.

- Application of Knowledge Maintain and transfer academic and technical skills to workplace
- Critical Thinking Analyze and solve complex problems across a range of academic and

everyday contexts

- Breadth of Knowledge Understand the basic content and modes of inquiry of the major knowledge fields
- Critical Thinking Recognize and assess evidence from a variety of sources

Understand how warehouse and other logistics managers can interact to efficiently and effectively use their combined personnel, facilities and equipment.

- Global Awareness Demonstrate understanding of alternative political, historical and cultural viewpoints
- Global Awareness Participate in constructive social interaction
- Application of Knowledge Be life-long learners, with ability to acquire and employ new knowledge
- Communication Skills Listen thoughtfully and respectfully to the ideas of others
- Global Awareness Demonstrate teamwork skills
- Application of Knowledge Maintain and transfer academic and technical skills to workplace

COURSE CONTENT

- 1. Warehouse management fundamentals
 - a. Overall distribution and logistics basics
 - b. The role of warehousing
 - c. Basic warehouse functions
 - d. Strategic warehouse management
- 2. Distribution Network
 - a. Systems analysis
 - b. Network modeling
 - c. Implementing new networks
- 3. Inventory
 - a. Inventory fundamentals
 - i. Inventory management
 - ii. Inventory measurements
 - iii. Independent demand
 - b. Inventory control systems
 - i. Fixed order quantity
 - ii. Fixed time period
 - iii. Other systems
 - c. Inventory management in practice
 - i. ABC analysis
 - ii. Measurement
 - iii. Counting
- 4. Warehouse Activity Profiling
 - a. Item activity profiling
 - b. Inventory profiling
 - c. Other profiling

- b. Warehouse measurements
- c. Warehouse performance gap analysis
- d. Warehouse performance index
- e. Automation
- f. Warehouse practices
- 6. Management & Productivity
 - a. Warehouse management basics
 - b. Workforce management & structure
 - c. Productivity reporting
- 7. Warehouse Operations
 - a. Warehouse operations basics
 - b. Managing assets
 - c. Managing activities
 - i. Receiving
 - ii. Putaway
 - iii. Picking
 - iv. Replenishment
 - v. Shipping
 - d. Support functions
- 8. Material Handling
 - a. Material handling overview
 - b. Material handling strategies
 - c. Equipment details
 - i. Lift trucks
 - ii. Racking
 - iii. Conveyors
 - iv. Pallets
- 9. Order Picking
 - a. Importance of order picking
 - b. Issue pack optimization
 - c. Picking from storage
 - d. Pick task simplification
 - e. Order batching
 - f. Cluster picking
 - g. Serpentine flow
 - h. Zone picking
 - i. Fast/forward pick area
 - j. Selecting picking methods
 - k. SKU Slotting
 - 1. Pallet storage
 - m. Pick sequencing
 - n. Bucket brigades
- 10. Shipping
 - a. Shipping fundamentals
 - b. Container optimization
 - c. Loading principles
 - d. Dock management
 - e. Cross docking
- 11. Warehouse Design & Layout
 - a. Design & layout fundamentals

- b. Layout planning process
- c. Layout selection
- d. Layout check list
- 12. Technology & Systems for Warehouse Management
 - a. Warehouse Management System functionality
 - b. WMS software selection
- 13. Customer Service
 - a. Customer service fundamentals
 - b. Logistics customer service
 - c. Pre transaction elements
 - d. Transaction elements
 - e. Post transaction elements
- 14. Supply Chain Management
 - a. Supply chain terminology & definitions
 - b. Supply chain fundamentals
 - c. Best practices in supply chain management
- 15. The Outsourcing Decision
 - a. Third party logistics (3PL) fundamentals
 - b. Factors affecting the 3PL decision
 - c. The outsourcing process
- 16. International Warehousing
 - a. Factors impacting warehousing in world regions
 - i. Consumption levels
 - ii. Economies of scale
 - iii. Scale of distribution
 - iv. Modes of transportation
 - v. Geography

concepts learned in class to analyze real warehouse management situations.

• Develop and assign tasks/activities such as presentations in order to assess students understanding of warehouse management concepts.

METHODS OF EVALUATION

Students will be evaluated for progress in and/or mastery of learning outcomes by me(nt) 0.2-0.2 (ed.2 (by(nt5

- Individual web projects designed to illustrate issues involved in locating warehouses.
- Individual or small group projects allowing students to design demonstrate assessment of warehouse operations financial analysis.

COURSE MATERIALS

All materials used in this course will be periodically reviewed to ensure that they are appropriate for college level instruction. Possible texts include:

Ackerman, Ken. <u>Warehousing Profitability</u>. 3rd ed. Ackerman Publications, 2011. Bartholdi & Hackman. <u>Warehouse & Distribution Science</u>. Release 0.95 ed. www.warehouse-science.com, 2011. Frazelle, Edward. <u>World-Class Warehousing and Material Handling</u>. McGraw-Hill, 2002.

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