

Discipline: Business

Degree Credit
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 overall 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
5. Measuring & Benchmarking
 - a. Benchmarking fundamentals

- 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
 - l. 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
 - vi. Labor costs
 - vii. Land costs
 - viii. Infrastructure
 - ix. Automation
 - x. Workforce flexibility

METHODS OF INSTRUCTION

Methods of instruction used to achieve student learning outcomes may include, but are not limited to:

- Facilitate discussions regarding relevant current issues in business to encourage students to make appropriate connections to the course content.
- Present lectures to describe the essentials of warehouse management concepts and their applications to business.
- Develop and assign exercises to reinforce concepts and encourage students to apply them to current warehouse management trends and events.
- Create and have students participate in cooperative learning tasks such as small group exercises to identify issues that relate to course content and utilize the content to offer opinions, solutions and analysis with respect to those issues.
- Present case studies to provide students with the opportunity to utilize

- 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 methods of evaluation which may include, but are not limited to:

- Individual or class projects designed to evaluate the application of warehouse management principles to simulations of business situations.
- Examination designed to provide objective evidence that students have attained the level of understanding expected in areas detailed in the student learning outcomes.
- Individual, small group, or paired activities designed to allow students to demonstrate understanding of basic warehouse management concepts.
- Quizzes and in-class participation demonstrating proficiency in the subject matter.
- Quizzes designed to assess the student learning outcomes.
- Written reports designed to assess the application of warehouse management principles.
- Individual web projects designed to assess student proficiency in achieving the student learning outcomes.

SAMPLE ASSIGNMENTS

Outside-of-Class Reading Assignments

- Students are expected to read all assigned chapters from the textbook and other course material in advance of the class covering that material.
- Other outside reading requirements may be assigned as appropriate and may include specific journal articles relating to warehouse operating and service procedures.

Outside-of-Class Writing Assignments

- Quizzes/examinations designed to determine student ability to assess financial analysis of warehouse operations.
- Written reports designed to assess ability to resolve warehouse security issues.
- Essays presenting detailed material on cargo handling procedures.
- Final projects designed to demonstrate student mastery of warehouse utilization metrics and productivity.

Other Outside-of-Class Assignments

- Individual, small group, or paired activities designed to allow students to demonstrate understanding of warehouse operating and service procedures.

- 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. Warehousing Profitability. 3rd ed. Ackerman Publications, 2011.

Bartholdi & Hackman. Warehouse & Distribution Science. Release 0.95 ed. www.warehouse-science.com, 2011.

Frazelle, Edward. World-Class Warehousing and Material Handling. McGraw-Hill, 2002.

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