

Discipline: Business

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

Riverside Community College District Integrated Course Outline of Record

Business 86

College: R___ M___ N_X

Lecture Hours: 54

Lab Hours: 0

Units:3.00

BUS-86: Transportation and Traffic Management

COURSE DESCRIPTION

Prerequisite: None.

A study of the freight transportation system including the demand for freight movement, laws, regulations, pricing, and policies, traffic management and international transportation issues. Focuses on how transportation collaborates with other supply chain functions to optimize cost and customer service. 54 hours lecture. (Letter Grade, or Pass/No Pass option.)

SHORT DESCRIPTION FOR CLASS SCHEDULE

A study of the freight transportation system, including pricing, regulation, and traffic management, and its role within integrated business supply chains.

ENTRY SKILLS

None.

STUDENT LEARNING OUTCOMES

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

Demonstrate understanding of transportation system operations.

- Breadth of Knowledge - Understand the basic content and modes of inquiry of the major knowledge fields
- Application of Knowledge - Maintain and transfer academic and technical skills to workplace

Compare operational characteristics of the major modes of transportation.

- Critical Thinking - Integrate knowledge across a range of contexts
- Critical Thinking - Generalize appropriately from specific contexts
- Application of Knowledge - Maintain and transfer academic and technical skills to workplace

Understand demand for and pricing of freight transportation.

- 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

Understand major freight transportation, laws, regulations, and policies.

- Application of Knowledge - Maintain and transfer academic and technical skills to workplace
- Communication Skills - Read college-level materials with understanding and insight
- Information Skills - Locate, evaluate and use information effectively
- Breadth of Knowledge - Understand the basic content and modes of inquiry of the major knowledge fields

Apply routing principles to simple problems.

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

Explain how the transportation of goods and exchange of information can be optimized to satisfy customer and business goals.

- 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
- Breadth of Knowledge - Understand the basic content and modes of inquiry of the major knowledge fields
- Breadth of Knowledge - Use the symbols and vocabulary of mathematics to solve problems and communicate the results
- Communication Skills - Speak with precision and clarity to express complex thought
- Critical Thinking - Construct sound arguments and evaluate arguments of others

COURSE CONTENT

1. Transportation as a critical link in the Supply Chain.
 - a. Economics of Transportation
 - b. Demand for Transportation
 - c. Transport Measurement Units
 - d. Location of Economic Activity
 - e. Supply Chain Concept
 - f. Transportation's Impact on Global Supply Chains
2. Transportation as a critical link in the economy
 - a. Transportation Infrastructure
 - b. Value of Goods
 - c. Utility of Goods
 - d. Transportation Patterns
 - e. Gross Domestic Product (GDP)
 - f. Environmental Significance
 - g. Safety
 - h. Social Significance
 - i. Political Significance
3. Transportation Regulation and Public Policy
 - a. Regulation of Transportation
 - b. Common Law
 - c. Role of the Independent Regulatory Commissions
 - d. Role of the Courts
 - e. Safety Regulations
 - f. State Regulations
 - g. Current Economic Regulations
 - h. Antitrust Laws in Transportation
 - i. Transportation Policy
 - j. Public Promotion
 - k. Public Project Planning Analysis
 - l. User Charges
 - m. Nationalization
 - n. Transportation Safety
 - o. Transportation Security
 - p. Federal Offices, Administrations and Boards
4. Costing and Pricing for Transportation
 - a. Market Considerations
 - b. Pricing
 - c. General Rates
 - d. Rate Systems Under Deregulation
 - e. Rate Structures
 - f. Pricing Decisions
 - g. Cost Structures
 - h. Operational Activities
 - i. Service Elements
 - j. TL/LTL Costing
5. Motor Carriers
 - a. Types and Numbers of Carriers
 - b. Market Structure
 - c. Competition
 - d. Operating and Service Characteristics

- e. General Service Characteristics
 - f. Equipment
 - g. Types of Vehicles
 - h. Terminals
 - i. Management Decisions
 - j. Fixed Versus Variable Cost Components
 - k. Economies of Scale
 - l. Safety
 - m. LTL Rates
 - n. How to Determine Vehicle Routes
 - o. Financial Stability
6. Railroads
- a. Number of Carriers
 - b. Competition
 - c. Operating and Service Characteristics
 - d. General Service Characteristics
 - e. Constraints and Strengths
 - f. Equipment
 - g. Service Innovations
 - h. Fixed, Semi Variable and Variable Costs
 - i. Economies of Scale
 - j. Improved Service to Customers
 - k. Alcohol and Drug Abuse
 - l. Energy
 - m. Future Role of Smaller Railroads
 - n. Drayage for Intermodal Service
7. Airlines
- a. Types of Carriers
 - b. Market Structure
 - c. Number of Carriers
 - d. Inter and Intramodal
 - e. Service Competition
 - f. Operating and Service Characteristics
 - g. Equipment
 - h. Types of Vehicles
 - i. Reduction of Aircraft Assets
 - j. Terminals
 - k. Fixed Versus Variable Cost Components
 - l. Fuel
 - m. Labor
 - n. Economies of Scale/Economies of Density
 - o. Rates/Pricing
 - p. Operating Efficiency
 - q. Safety
 - r. Security
8. Water Carriers and Pipelines
- a. Shipment Visibility
 - b. Types of Carriers
 - c. Competition
 - d. Operating and Service Characteristics

- e. Equipment
 - f. Cost Structure
 - g. Ports as an Essential Link
 - h. Types of Carriers
 - i. Ownership
 - j. Number of Carriers
 - k. Operating and Service Characteristics
 - l. Relative Advantages and Disadvantages
 - m. Competition
 - n. Equipment
 - o. Commodity Movement
 - p. Cost Structure
 - q. Global Pipelines
9. Transportation Risk Management
- a. Transportation Risk Management Process
 - b. Supply Chain Security
 - c. Maritime Transportation Security Act
 - d. Container Security Initiative
 - e. Advanced Manifest Regulations
 - f. Customs-Trade Partnership Against Terrorism
 - g. C-TPAT Membership
 - h. Free and Secure Trade
10. Global Transportation Planning
- a. Global Trade Agreements
 - b. Logistics Channel Issues in Global Transportation
 - c. Global Transportation Challenges
 - d. Transportation Issues Encourage Near-Sourcing
 - e. Export Preparation Activities
 - f. Terms of Trade
 - g. Cargo Insurance
 - h. Terms of Payment
 - i. Freight Documentation
 - j. Creating the Automated Commercial Environment
 - k. Transportation Planning
 - l. Mode Selection
 - m. Carrier Selection
 - n. Route Planning
11. Global Transportation Execution
- a. Intermodal Transportation
 - b. Preparing Freight for Movement
 - c. Policy and Regulatory Issues
 - d. 10+2 Import Requirements
 - e. Global Transportation Providers
 - f. Ocean Shipping
 - g. International Air
 - h. Global Trade Management Systems
 - i. Surface Transport
 - j. Ancillary Services
 - k. Port Operations
 - l. Seaports

- m. Airports
- n. Customs Clearance
12. Third Party Logistics
 - a. Types of 3PL Providers
 - b. Enhancing Freight Flows with TMS Capabilities
 - c. 3PL Services and Integration
 - d. 3PL User Overview
 - e. Reasons for Outsourcing
 - f. Primary Activities Outsourced
 - g. Results Achieved
 - h. Establishing and Managing 3PL Relationships
 - i. Strategic Challenges for 3PL Users
13. Private Transportation and Fleet Management
 - a. Private Transportation Definition
 - b. Private Rail Transportation
 - c. Private Air Transportation
 - d. Private Water Transportation
 - e. Private Oil Pipeline Transportation
 - f. Private Trucking
 - g. Private Trucking Cost Analysis
 - h. Taking Companies Private
 - i. Major Operating Decisions
14. Issues and Challenges of Global Supply Chains
 - a. Congestion and Transportation Infrastructure
 - b. Sustainability: The Green Supply Chain
 - c. Truck Navigation
 - d. Fuel Cost and Consumption
 - e. Carriers' Responses
 - f. Transportation Report Card
 - g. Collaboration and Visibility

METHODS OF INSTRUCTION

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

- Present lectures to describe the essentials of transportation and traffic management concepts and their applications to business.
- Develop and assign exercises to reinforce concepts and encourage students to apply them to current transportation and traffic 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 transportation and traffic management situations.
- Develop and assign tasks/activities such as presentations in order to assess

students understanding of transportation and traffic management concepts.

- Facilitate discussions regarding relevant current issues in business to encourage students to make appropriate connections to the course content.

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:

- Examination designed to provide objective evidence that students have attained the level of understanding expected in the areas detailed in the student learning outcomes.
- Individual, small group, or paired activities designed to allow students to demonstrate understanding of basic transportation and traffic 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 transportation and traffic management principles.
- Individual web projects designed to assess student proficiency in achieving the student learning outcomes.
- Individual or class projects designed to evaluate the application of transportation and traffic management principles to simulations of real business situations.

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 assessing the domestic freight transportation system.

Outside-of-Class Writing Assignments

- Quizzes/examinations designed to assess ability to compare different modes of transportation.
- Essays presenting material related to freight transportation, laws, regulations, and policies.
- Essays designed to demonstrate student mastery of freight traffic management issues.

Other Outside-of-Class Assignments

- Individual, small group, or paired activities designed to allow students to

demonstrate understanding of basic transportation and traffic management concepts.

- Individual web projects designed to assess student proficiency in achieving course learning outcomes.
- Individual or small group projects designed to evaluate the application of transportation and traffic management principles to simulated real world situations.

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:

Coyle, Bardi & Novack. Transportation. 6th ed. South-Western Publishing, 2006.

Johnson & Wood. Contemporary Transportation. 5th ed. Prentice Hall, 1996.

06/21/2011

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