

## Logistics and Transportation Management



### I. General Information

- Course number: SCM 640
- Title: Logistic and Transportation Management
- Units: 3
- Prerequisites: Graduate Standing
- SCO Prepared by: Dr. Seiji Steimetz
- Date prepared: January 18, 2013

### II. Catalog Description

Economic analysis of freight transportation, demand and cost factors, market structures, public policy and regulation, social and environmental impacts. Introduction to the logistics and economics of goods movement via ocean, surface, air, and intermodal strategies. Letter grade only (A-F).

### III. Curriculum Justifications

Graduate students studying supply-chain management and logistics require an understanding of the economic mechanisms and public policies that affect goods-movement markets and modes. They must also understand the related logistical challenges faced by global-scale firms. This course combines the disciplines of Transportation Economics and Logistics to provide a necessary understanding of logistical strategies for moving goods, how goods can be moved in a cost-effective manner, and how economic factors and public policies can affect goods-movement markets and logistical decisions. The course's specific subject matter will coincide with the following CBA Graduate Learning Goals:

- Critical Thinking
- Quantitative & Technical Skills

### IV. Course Objectives

The course objectives directly coincide with the CBA Graduate Learning Goals referenced in Section III. Specifically those objectives are for students to

# Standard Course Outline

---

- Understand the demand and supply of freight transportation, and how they are forecasted
- Interpret transportation data and basic statistical output, with the ability to use them in logistics and supply-chain management decision making
- Use economic models of transportation markets to explain and predict the impact of economics factors on pricing and output decisions
- Understand the various types of transportation market structures and how those structures impact pricing and output decisions
- Understand how public policies and the regulatory environment affect transportation output and pricing decisions
- Analyze the impact of public policies and the regulations on the economic efficiency of transportation systems
- Understand social impacts of goods movement such as air pollution, highway congestion, and highway accidents
- Use economic models to describe methods for ameliorating the social impacts of goods movement
- Understand the scope and elements of the national freight transportation system
- Gain familiarity with maritime port operations and containerized shipping
- Understand various shipping modes and the role of warehousing facilities
- Understand the opportunities and challenges associated with intermodal and multimodal transportation strategies
- Understand the roles of various players involved in logistics decisions, such as freight-forwarders, brokers, shipping agents, and third-party logistics firms

## **V. Outline of Subject Matter**

Specific topics for this course will include:

- Statistical Concepts used in Transportation Analysis
- Demand and Supply of Goods-Movement Services
- Economic Models of Transportation Markets
- Transportation Modes and Market Structures
- Transportation Regulation and Public Policies
- Environmental Impacts of Goods-Movement Activity
- Highway Safety and Level of Service Impacts Goods-Movement Activity
- Logistics as a Component of Supply Chain Management
- Modal Shipping Strategies and Performance
- Maritime Operations and Containerization
- Factors Affecting Carrier and Shipper Decisions

# Standard Course Outline

---

- Impact of Transportation on the Global and Domestic Environment
- The role of International Trade and Finance in Transportation and Logistics

## VI. Methods of Instruction

Instructors should use appropriate instruction methods consistent with graduate-level presentation of the topics listed in Section V and with regard to the course objectives and learning goals outlined in Sections III and IV. Possible instruction methods include:

- Classroom Lecture and Discussion
- Problem Sets assigned as Homework
- Policy Briefs on Current Freight Transportation Topics
- Case Analysis
- Individual and/or Group Term Projects

There are no specific textbooks that must be used for this course. Assigned textbooks and supplemental reading material must, however, cover most or all of the topics outlined in Section V. Most reading assignments are likely to be in handout form. The following, however, is one example of an appropriate, supplementary textbook:

- Button, Kenneth. Transport Economics. Edward Elgar Publishing

## VII. Instructional Policies Requirements

- a) Instructional policies should be consistent with the course description stated in Section II, and should serve the course objectives listed in Section IV of this Standard Course Outline.
- b) Instructors should enforce policies regarding to plagiarism, withdrawal, absences, etc., that are consistent with the University policies published in the CSULB Catalog. It is expected that every course will follow University policies on Attendance, Course Syllabi, Final Course Grades, Grading Procedures, Final Assessments, and Withdrawals. If some or all sections of the course are to be taught, in part or entirely, by distance learning in the future, the course must follow the provisions of PS 03-11, Academic Technology and the Mode of Instruction.
- c) All sections of the course will have a syllabus that includes the information required by the syllabus policy adopted by the Academic Senate. Instructors will include information on how students may make up work for excused absences. When class participation is a required part of the course, syllabi will include information on how participation is assessed.
- d) **Students with Disabilities.** Students with disabilities are responsible for notifying their instructor as early as possible of their needs for an accommodation of a verified disability. A student with a disability is urged to consult with Disabled Student Services as soon as possible in order to identify possible accommodations to enhance academic success.