

Transportation & Logistics Management

Course Details

Course Designator & Number: BCLA 3025

Number of Credits: 3

Language of Instruction: English

Contact Hours: 45

Instructor: xxx

Course Description

Barcelona is a major international and regional hub for transportation and logistics, connecting major industries such as automotives, textiles, fashion, food, and tourism across Europe and beyond. This course offers students an opportunity to explore the essential role of transportation networks and logistics in facilitating trade and economic growth in a highly dynamic setting. With Barcelona's unique position as a gateway to the Mediterranean, the European markets and Latin America, students delve into the challenges and opportunities in optimizing transportation routes, managing logistics infrastructure, and enhancing sustainability. Leveraging Barcelona's rich logistics ecosystem as a living classroom, this course combines in-depth case studies with field-based learning experiences. Students engage in classroom sessions complemented by guest lectures from industry leaders and visits to key sites, such as the Port of Barcelona, cutting-edge manufacturing and logistics centers, and El Prat Airport. By the end of the course, students gain both theoretical knowledge and practical skills in designing and managing efficient, sustainable transportation and logistics systems. Immersed in Barcelona's forward-thinking transportation and logistics culture, students learn to tackle the challenges of global and regional transportation in one of Europe's most important logistics hubs.

Course Objectives

Through their participation in this course, students will:

- Understand the core elements of logistics and transportation systems in the global and local Barcelona/Catalonia context.
- Identify and describe the dynamics of key logistics and transportation decisions, including the design of the distribution network, choice of transportation modes and routes, location and design of distribution centres, and management of last mile logistics in the global and local Barcelona/Catalonia context.
- Assess how these decisions are made by leading companies and what influence these decisions have on the performance dimensions of flexibility, speed, reliability, accessibility, and cost in the global and local Barcelona/Catalonia context.
- Apply best practices to the challenges typical companies face in managing their logistics and transportation network, including how to innovate considering competitive pressures and external shocks in the global and local Barcelona/Catalonia context.

Methodology

Active participation is essential in this course. **All assignments must be submitted via Canvas unless otherwise noted.**

Course Prerequisites

Prior foundational coursework in Supply Chain or Operations Management is recommended.

Required Reading / Materials

Textbooks

Christopher, Martin. *Logistics & Supply Chain Management*. New York: Pearson, 2023.

Rudd, Jerry, *A Practical Guide to Logistics: An Introduction to Transport, Warehousing and Distribution*. New York: Kogan Page, 2024.

Other

USA Department of Commerce, International Trade Administration. Spain Country Commercial Guide. Distribution and Sales Channels.

<https://www.trade.gov/country-commercial-guides/spain-distribution-sales-channels>

Further reading material will be provided throughout the course.

Grading

Grading Rubric

Letter Grade	Score or Percentage	Description
A	93–100	Achievement that is outstanding relative to the level necessary to meet course requirements.
A-	90–92	Achievement that is significantly above the level necessary to meet course requirements.
B+	87–89	
B	83–86	
B-	80–82	Achievement that meets the course requirements in every respect.
C+	77–79	
C	73–76	
C-	70–72	Achievement that is worthy of credit even though it fails to fully meet the course requirements.
D+	67–69	
D	60–66	
F	0–59	Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

Summary of How Grades Are Weighted

Assignments	Percentage of Grade
Participation in class	15%
Homework	10%
Quizzes	20%
Group presentation	25%
Final paper	30%
Overall Grades	100%

Assessment Details

Grade assignments include:

- **Participation:** Students are expected to attend each class and field study course component, as outlined in the CET Attendance Policy. Students are expected to read all assigned materials before the relevant class session and come prepared to participate thoughtfully in class discussions. Reading assignments are generally 20-30 pages per class session.
- **Homework:** 2 short response papers.
- **Quizzes:** 2 short quizzes to test students' comprehension of readings.
- **Group presentation:** 15 minutes, with 5 minutes for questions, using an element of the local context to illustrate concepts discussed in an assigned reading.
- **Individual final paper:** 8-10 pages on a topic determined in consultation with the faculty member.

Course Content

Unit 1

Introduction to Transportation & Logistics in Barcelona/Catalonia

- The development of transportation in Barcelona, a historical overview
- Key concepts and terminology in transportation and logistics
- Key players in Barcelona's transportation and logistics sector (Port of Barcelona, Airport, SEAT, Mercabarna)
- Strategic location decisions in supply chain network design

Unit 2

Going To Market, The Foundation of Transportation & Logistics

- Matching supply and demand
- Distribution channels as value delivery systems
- The omni-channel revolution
- Distribution strategy: should we operate our own logistics or contract out?
- Supply chain management versus logistics
- Network design optimization

Unit 3

Modes of Transportation in Barcelona/Catalonia

- Road transportation: freight corridors
- Rail transportation: connections to Europe and Catalonia's rail network
- Maritime transport: Port of Barcelona operations and services

- Air Transport: Barcelona–El Prat Airport and its role in freight

Unit 4

Barcelona's role in International Trade, a Leader in the Mediterranean & European Supply Chains

- Incoterms and CMS Convention
- The role of the Port of Barcelona and Barcelona El Prat Airport in international trade
- Barcelona's Logistics Hubs and Freight Corridors
- Barcelona's infrastructure investments (Zona Franca)
- Customs procedures and compliance in the Mediterranean region

Unit 5

Supply Chain Management in Barcelona's Key Industries

- Automotive logistics (the case of SEAT's supply chain and exports)
- Food and agriculture supply chains (Mercabarna as a Case Study)
- Retail and E-commerce distribution in Barcelona
- Tourism supply chains in Barcelona/Catalonia

Unit 6

Sustainable & Green Logistics in Barcelona

- Environmental impact of transportation in Barcelona and Catalonia
- Barcelona's Urban Mobility Plan (UMP), Barcelona's Climate Action Plan 2018-2030, Superblock Module and Emission Reduction Strategies
- Sustainable approaches and climate strategy of the Port of Barcelona

Unit 7

Warehouse Management & Distribution Centers in Barcelona

- The physical infrastructure
- Warehouse management systems
- Barcelona's key warehousing locations (Zona Franca and Port)
- Warehouse automation and smart technologies in Barcelona

Unit 8

Last Mile Logistics: Evaluating Alternatives in Barcelona

- Innovative technologies and the future of last mile delivery (drones, autonomous vehicles, and robotics)
- Sustainable last-mile solutions (Barcelona Living Lab, HALLO project)
- Impacts and customer expectations

Unit 9

The Financial Impact of Logistics

- Breaking down logistics costs: a comprehensive analysis of fixed and variable expenses
- Cost optimization strategies in logistics: reducing expenses without compromising service
- Measuring and managing the financial impact of logistics on profit margins

Unit 10

Future Trends in Transportation and Logistics in Barcelona and Beyond

- Autonomous delivery vehicles and Barcelona's mobility labs (Urban Mobility Lab, Barcelona Innova Lab Mobility)
- Barcelona's role in Europe's high-speed rail initiatives
- Smart city planning

Policies

Attendance Policy

Students are expected to be on time and attend all classes while abroad. Many instructors assess both attendance and participation when assigning a final course grade. Attendance alone does not guarantee a positive participation grade; the student should be prepared for class and engage in class discussion. See the on-site syllabus for specific class requirements.

University of Minnesota Policies & Procedures

Academic integrity is essential to a positive teaching and learning environment. All students enrolled in University courses are expected to complete coursework responsibilities with fairness and honesty. Failure to do so by seeking unfair advantage over others or misrepresenting someone else's work as your own can result in disciplinary action. The University Student Conduct Code defines scholastic dishonesty as follows:

Scholastic Dishonesty

Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis.

Within this course, a student responsible for scholastic dishonesty can be assigned a penalty up to and including an "F" or "N" for the course. If you have any questions regarding the expectations for a specific assignment or exam, ask.

Student Conduct

The University of Minnesota has specific policies concerning student conduct. This information can be found [on the Learning Abroad Center website](#).