

MASTER'S DEGREE IN SUPPLY CHAIN, TRANSPORT AND MOBILITY MANAGEMENT

Joint programme taught by
Barcelona School of Civil Engineering
Barcelona School of Industrial Engineering



**UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH**

International Campus of Excellence

MASTER'S DEGREE IN SUPPLY CHAIN, TRANSPORT AND MOBILITY MANAGEMENT

The master's degree focuses on analysis, management and optimisation of transport and logistics systems. The aim is for students to acquire the skills required to make decisions that contribute to improving the productivity of the economy and people's quality of life. Students may choose between two pathways: Supply Chain Management (SC) and Transport and Mobility Management (TM).

The increasingly important role of the logistics and transport sectors in the business world, and the need to adapt them to the profound technological changes taking place —particularly in the application of ICTs to urban mobility and autonomous vehicles, and in the expansion of e-commerce—make this master's degree one of the technical fields of study with the best prospects.

70%
of students complete work placements

93%
UPC graduate employment rate
Source: sixth graduate employment survey of Catalan universities by the Catalan University Quality Assurance Agency (AQU Catalunya)

Ranked 8th
in Europe in Civil and Structural Engineering in the 2018 QS World University Rankings by Subject

The master's degree is taught jointly at the Barcelona School of Industrial Engineering (ETSEIB) and the Barcelona School of Civil Engineering (ETSECCPB), institutions that combine a long tradition of excellence with a spirit of renewal and continuous improvement —an approach that has earned them a place among the best engineering schools in Europe.

The ETSEIB's and the ETSECCPB's research groups are recognised by the Government of Catalonia in the areas of knowledge covered by the master's degree, including Barcelona Innovation in Transport (BIT) and Industrial Engineering and Logistics (EOLI). Students will have the opportunity to join these groups to complete their master's theses.

Most graduates find employment within a short time of completing the programme.

Who is it for?

This master's degree offers 40 places and is aimed mainly at:

- Graduates in industrial, civil, telecommunications, informatics, aerospace, naval, marine and nautical engineering and architecture.
- Graduates in applied sciences (physics, mathematics and statistics).

Languages

Classes are taught in Spanish and English (approximately 50/50).

Timetable and campus

Classes are held between 3 p.m. and 8 p.m. Lectures for compulsory subjects and the Supply Chain Management specialisation are held at the ETSEIB, and in the case of the Transport and Mobility Management specialisation, at the ETSECCPB.

Mobility

Students can complete semester-long stays at other universities through international mobility programmes. The options available include programmes such as Erasmus in Europe and exchanges with institutions in China, the United States and Canada —a total of 126 universities.

Visits and professional insight

Training is complemented by technical visits related to the subjects taught and enriched by the participation in teaching of professionals with extensive experience in the sector.

Work placements

The ETSEIB and the ETSECCPB develop and maintain strategic partnerships with companies to support training and research. Over the course of the programme, students have the opportunity to complete work placements, with over 300 participating companies to choose from.

In addition, the schools collaborate on unique projects, such as the activities sponsored by the Abertis and SEAT Chairs and the CARNET (Cooperative Automotive Research Network) Cluster, which offer students a valuable practical learning experience and bring them into direct contact with companies.

International recognition

The master's degree is recognised and valued both in Spain and internationally. A third of students are from Catalonia, a third from the rest of Spain, and a third from other countries around the world. Academic staff are active in research and technology transfer at the international level and participate in the most important sector forums each year.

Curriculum

120 ECTS credits

1st year

1st semester

Introduction to Supply Chains**	5
Transport and Logistics System Modelling**	5
Transport and Logistics System Operations**	5
Transport and Logistics Data Analysis**	5
Quantitative Methods in Supply Chains*	5
Transport Economics**	5

2nd semester

Economics and Legislation in Transport and Logistics*	5
Transport System Demand**	5
Optional subjects	20

2nd year

3rd semester

Optional subjects	30
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4th semester

Optional subject area (Optional subjects / work placement / master's thesis extension)	15
Master's Thesis	15

- Compulsory subjects
- Optional subjects
- Thesis

Optional subjects / Specialisations

There are two specialisations: Supply Chain Management (SC) and Transport and Mobility Management (TM). Students must choose one specialisation and take 20 ECTS credits for compulsory subjects and 20 ECTS credits for optional subjects in the chosen specialisation.

2nd semester

Process Description and Improvement*	4
Operations Management *	6
Storage and Provision*	5
Quality of Services in Supply Chains*	5
Human Resources*	5
Public Transport**	5
Transport Network Optimisation Models**	5
Traffic Simulation Models**	5
Transport System Planning and Management**	5
Railway Transport*	5
Transport Appraisal and Decision Making**	5
High-Speed Railway Management*	5

3rd semester

Operations Management II*	4
Supply Chains Design*	6
Sector Strategies in Supply Chains*	5
Information Systems and ICTs in Supply Chains**	5
Information Systems*	6
Management and Cost Control*	4.5
Packaging*	5
Business Administration and Management*	5
Freight Transport**	5
Traffic**	5
Airport Management**	5
Advanced Demand Models **	5
Vehicle Routing **	5
Smart Mobility**	5
Port Management and Maritime Transport**	5
Transport Investment Funding**	5

* In Spanish / ** In English

* In Spanish / ** In English

■ Compulsory for SC specialisation

■ Optional for SC specialisation

■ Compulsory for TM specialisation

■ Optional for TM specialisation

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You will receive
multidisciplinary training
and develop in-depth
knowledge in the field
of logistics, transport
and mobility.

Leading schools.
Training and research
at the highest
scientific and
technological level.



The engineering that moves the world



The ETSEIB, the school that opens doors
for you!

Further information:
mltm.masters.upc.edu

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