Master in

Design of Spaces for Urban Mobility

LCI Barcelona

The World is Your Classroom

MASTER IN

DESIGN OF SPACES FOR URBAN MOBILITY

· Degree: Master in Design of Spaces for Urban Mobility
· Credits: 60 ECTS
· Duration: 1 academic year
· Start date: October
· Language: English
· Modality: On-campus

Cities are transforming their public spaces, driven by the crises of economic, environmental, and social models that once prioritized vehicles. The improvement of public transport and growing environmental awareness have led to a rethinking of urban spaces, promoting models such as the “15-minute city” or Barcelona’s “superblocks”.

Governments are reclaiming space for citizens through sustainable initiatives, redefining mobility, and fostering more efficient systems. In this digitalized and hyper-connected era, the “smart” concept adds complexity but also presents opportunities to enhance urban strategies.

Mobility, essential to urban life, requires the analysis of infrastructure, vehicles, intermodal connections, and logistics to ensure harmony between systems and users. User experience is key, and design plays a critical role in optimizing every touchpoint with transportation.

New solutions are emerging, ranging from improvements in infrastructure (bicycle parking, transport interchanges, etc.) to innovations in vehicles (trains, drones, autonomous vehicles, etc.). From our perspective, design is an essential discipline for balancing the requirements, needs, and expectations of new ways of understanding and experiencing mobility.

This master’s program will equip you to design interior spaces linked to mobility, covering both static elements and the vehicles that make it possible.

Who is it for?

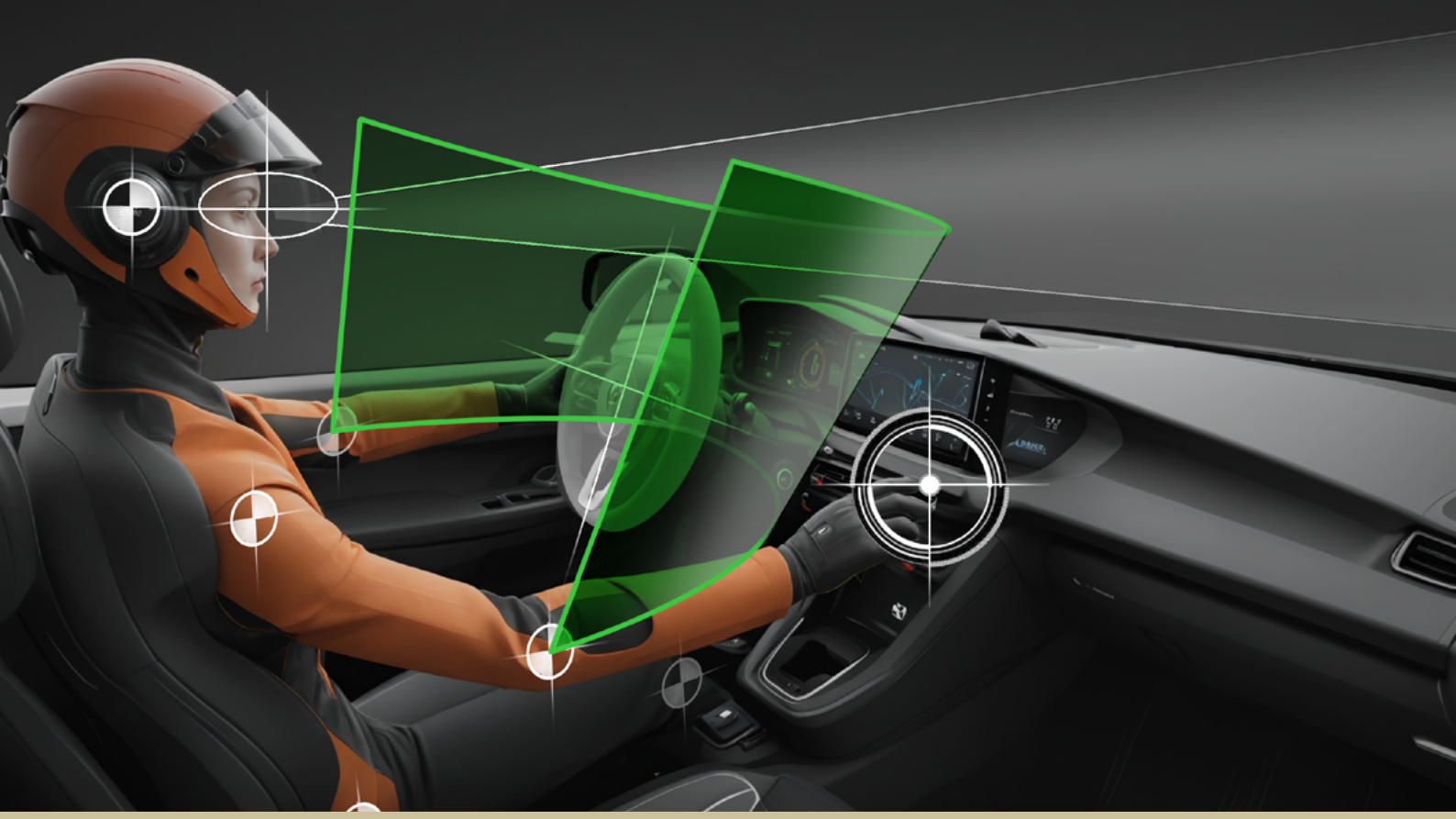
This master’s degree is aimed at product designers and interior designers who want to specialize in designing spaces for mobility and transport environments. Graduates will be prepared to play a key role in multidisciplinary teams within transport design studios, OEM (Original Equipment Manufacturer) studios, and the auxiliary industry.

This program focuses on the professionalization of a versatile profile that operates wholly or partially in the development of mobility-related products. It is particularly suited for designers or engineers with a creative vision.

Candidates should be familiar with design processes and methodologies. Knowledge of digital modeling, drawing, and illustration tools is also recommended.

Career Opportunities

- **Multidisciplinary designer in studios or brands within the automotive, boating, rail, and aviation industries**
- **Component design**
- **Interior design**
- **CMF (Color, Materials, and Finishes) design**
- **Architectural space design for mobility**
- **Street furniture design, etc.**



Objectives

The Master in Design of Spaces for Urban Mobility will provide you with hands-on knowledge in interior space design, covering both infrastructure and vehicles. You will learn how to adapt these spaces to evolving user needs and create fully functional environments for future activities.

This program is designed to train you as a versatile professional, capable of working in design, engineering, or architecture studios within the mobility sector. You will develop the ability to navigate both static and mobile spaces, understanding their interaction and creating innovative solutions for the industry.

Methodology

This program is structured with a practical approach that combines various learning methodologies. Through master classes, workshops, labs, tutorials, and visits to industry leaders, you will gain an in-depth understanding of the different aspects of designing spaces for mobility.

The training is based on three key pillars:

• **Instrumental:** you will acquire essential hard and soft skills to navigate this field with confidence, focusing on:
  · expression and representation (project communication techniques, verbal expression, drawing, prototyping, etc.),
  · new digital technologies (software),
  · production and prototyping systems (digital manufacturing),
  · transport project management (workflow vision, key stakeholders, business dynamics, etc.).

• **Conceptual:** the master aims to develop professionals with a critical perspective on transportation and its integration into physical, cultural, and human environments.

• **Contextual:** the mobility sector operates under specific principles that vary across transport modes, means, and services. To understand and design within this system, we will analyze different scenarios, materials, technologies, and economic models, providing a comprehensive and applied vision of the industry.

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SYLLABUS

*The syllabus is subject to change

TRANSVERSAL MODULE (12 ECTS)
INTRODUCTION TO TRANSPORT

This module is integrated throughout the master's program, offering knowledge capsules aligned with the topics covered in each phase. Conferences and activities will focus on understanding industry fundamentals and equipping you with key tools to navigate the sector.

•Modes and systems of transport.
- **· The different types of transport and their infrastructures.**
- **· History, trends, and emerging challenges in transport spaces.**
- **· The current paradigm of urban mobility, sustainability, etc.**

• Color and volume (basic theory).
• Technology and materials in different transport modes.
• Representation techniques (presentation tools: sketch-video).
• Blender + Photoshop (rapid modeling tools).
• Public speaking (presentation skills).

PROJECT 1 (14 ECTS)
AUTOMOBILE

In this project, you will develop a car interior as a team, exploring the value chain and the fundamentals of automotive design. You will have the opportunity to envision the future of this mode of transport and analyze its impact on mobility. A top-tier partner company will guide you, providing industry-aligned training.

• History of the automobile (brief contextual introduction to the automotive industry).
• Automotive system architecture (overview of different vehicle types).
• Research (discussion and analysis of existing solutions).
• Project (development of an interior space for the automotive industry).

PROJECT 2 (14 ECTS)
RAILWAY

For this project, you will design the interior of a train as a team, analyzing the public transport value chain and developing innovative solutions. You will also study infrastructure as a crucial component of railway systems. Experts and an industry partner will act as your mentors and clients, ensuring a real-world learning experience.

• History of rail transport (brief contextual introduction to the railway industry).
• Railway architectures (overview of different vehicle types).
• Research (discussion and analysis of existing solutions).
• Project (development of an interior space for railway transport).

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SYLLABUS

MASTER'S FINAL THESIS (20 ECTS)

For this final project, you will work in a small team to develop a disruptive concept in transport, applying all the knowledge acquired during the program. You will select an innovative idea focused on Barcelona and design a solution that integrates your expertise. The final proposal will be presented to a jury of expert designers in the sector.

- **Research (study and analysis of a solution suggested by the client).**
- **Proposal - draft (project title and motivation).**
- **Preliminary project (project framework: timeline and milestones).**
- **Project development (design of an urban mobility space/system commissioned by a company or institution and applied to the city of Barcelona).**
- **Final presentation (individual presentations based on project roles).**

WORK PLACEMENTS (OPTIONAL)

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MASTER'S DIRECTOR

Fernando Tellechea

Industrial designer, currently serving as Railway Industry Coordinator at EDAG Spain. For more than 30 years, he was Chief Designer, Innovation Manager, and Board Member at Integral Design and Development. He combines his professional career with the management of this program and teaching at other universities such as ESADE and Elisava. Fernando sees industrial design as a way of life. His approach is based on constant observation, hands-on learning, and the pursuit of creative and innovative solutions to new challenges.

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FACULTY

Eduardo Lana

Interior designer at Renault Group and UX/UI designer at Geely Design Milano. His expertise lies in designing innovative interior spaces while integrating user-centered digital solutions, transforming the interaction between people and vehicles.

Xavier Carreras

Industrial designer with a strong background in the automotive industry. Currently, he is Product Owner – Current Platform at Scania Trucks, where he contributes to the development of innovative vehicles. His approach combines functionality and robustness, adapting to the demands of the heavy transport sector.

Joan Ripoll Femenia

Industrial designer with an extensive career in the automotive industry. Currently, he works at Volvo Car Corporation and Geely Design Barcelona, contributing to the development of innovative projects that combine creativity, functionality, and sustainability.

Among others.

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