

Name	Smart Mobility 2.: Individual Project
Codes	M-FR-205-INDIVIDUAL-PROJECT
Host	Future School
Location	Classroom/ <u>Studio</u> or workshop/ External venue/ Online

Course info			Subject info			
Course Type	Contact hours	Home study hours	Comprehensive Subject	Subject type	Semester	Subject credit value
Practice	24	36	Smart Mobility Project 2	Compulsory	2026 Spring	10

Recommendation
The course is for students interested in transportation design, mobility systems, public transport innovation, micromobility and sustainable urban mobility. It provides a structured framework for developing a high-quality concept aligned with systemic mobility challenges.

Short description
Students explore a self-directed mobility topic related to public transport, mobility systems or micromobility. They carry out research, define user needs, analyse mobility ecosystems and design near-future transportation concepts. The course emphasises systemic design, ergonomics, user flows, digital modelling, VR visualisation and communication of a full-scale design concept.

Teachers				
Name	Contact information	Teaching hours	Short BIO	Open hours
Daniel Ruppert	ruppert.daniel@mome.hu	24	Industrial designer, founder of Ustory Mobility	

Course scheduling			
Course format		Weekly class appointments	
Course Format: Weekly studio classes, individual consultations, individual mentoring, interim reviews.		Individual consultations. Wednesdays (16:40-18:00)	
Details of each session's type and schedule, showing the teacher's role			
Week	Date	Weekly educational content	Studio/workshop
1		(Course week)	
2		Kickoff, introduction, topic selection	Mobility lab

3		Public transport & mobility systems research	
4		Public transport & mobility systems research	
5		Future forecasting	
6		Trend analysis, building up scenarios	
7		Conceptualisation & ideation	
8		<i>System mapping & user flow refinement</i>	
9		<i>System mapping & user flow refinement</i>	
10		Data modeling	
11		VR Integration	
12		Visualisation & animation	
13		Interim presentations	
14		Final Presentation	
15			

Course completion requirements, prerequisites, and evaluation

Students' duties

Requirements, assignments	Form of evaluation	Evaluation criteria	Deadline	% in evaluation
Active participation and consultation attendance	Final presentation	• Topic relevance & justification	Final presentations' week	20
Completion of the full design process	Final presentation	• Systemic understanding of mobility/public transport context		30
Research documentation, sketches, 3D models	Final presentation	• Research depth: social, ergonomic, technical, anthropological aspects • Methodological quality • Sketch, model and 3D development depth • VR presentation quality • Visual and verbal clarity"		10
Visualisation materials (renders, animations)	Final presentation			25
1:4 mirrored clay model depending on project	Final presentation			15

General requirements

- Active participation (max. 3 absences)
- Research documentation (system analysis, trends, user needs)
- Concept development posters
- Data model / VR presentation
- Simple animations
- Ergonomic mock-ups
- Final digital presentation

Course materials and literature

Mandatory literature

Stuart Macey & Geoff Wardle: H-Point — The Fundamentals of Car Design & Packaging

Course notes and presentations

Recommended literature
Urban Mobility research papers, UITP publications, ITDP resources

Learning outcomes	
Knowledge	<ol style="list-style-type: none"> 1. Have a general knowledge of the processes and concepts underlying their own design work. 2. have a high level of knowledge of the most important materials, techniques and methods underlying design activities in the field of design and design making. 3. Knowledge of the main basic presentation tools, styles and channels used in the profession. 4. Understands the role and importance of analytical and critical thinking within the discipline. 5. Has a high level of understanding of the importance and role of creativity in design. 6. Understands the basic content and general principles of other fields related to design (e.g. economics, culture, futurology, ecology, technology). 7. Understands the role and potential of design in the context of the economy and society and the environment. 8. is familiar with a range of different research methods to identify the needs of stakeholders. 9. understands the fields in which the design toolbox can be applied and that design processes can have a wide range of outcomes.
Skills	<ol style="list-style-type: none"> 1. adapt and develop design skills, techniques and technologies in response to current and future social, cultural and economic challenges to new types of problems 2. identify and analyse problems that design can solve. 3. Develops and evaluates design concepts. Links design concepts to similar tools in other (related) disciplines. 5. is able to make creative use of the technical, material and information resources on which his/her design work is based. 6. Analyses and develops his/her own design and design processes, constantly adapting to new technologies. 7. Communicates his/her ideas and processes to clients and the general public. 8. Is able to collaborate with his/her professional community. 9. Able to communicate effectively when working collaboratively. 10. Ability to absorb and integrate diverse knowledge into his/her thinking. 11. Ability to work effectively and proactively in a team. 12. Identifies the needs of stakeholders in the planning process, involving them in the planning process where appropriate.
Attitude	<ol style="list-style-type: none"> 1. Focuses on the creative aspects of design. 2. An open, inclusive and empathetic approach to design. 3. Strives to build and cultivate national and international professional relationships. 4. Consciously manages the interactions that arise during the design process (presentation, teamwork, brainstorming, workshop, etc.). 5. Approaches design tasks with a future-oriented and strategic mindset.
Autonomy and Responsibility	<ol style="list-style-type: none"> 1. develops a design concept, either independently or in collaboration, and implements it professionally, either independently or in a team 2. acts autonomously and responsibly in multidisciplinary projects and activities.

Exemption
<p>No exemption may be granted from participation in or completion of the course.</p> <p>Exemption may be granted from completing certain tasks or attending specific sessions. Certain tasks may be replaced by equivalent activities. Full exemption may be granted</p> <p>The student must discuss the details of a full or partial exemption with the instructor and the programme lead.</p>

Curricular connections

Subject	Parallel courses	Course proportion in subject
Smart Mobility Project 2	Smart Mobility 2 - Mercedes Project	
Subject prerequisites	Special subject prerequisites	Is it available as an elective?
Smart Mobility Project 1		No

Guidelines and rules for the use of artificial intelligence in the course

The use of artificial intelligence at the university is subject to the Artificial Intelligence and Plagiarism Policy of the Moholy-Nagy University of Arts.

Materials needed for the course	Who provides the materials?
Sketching materials — Provided by: Student	Tech Park / Programme / Student / Other
Modelling tools and materials / workshop access — Provided by: Tech Park	Tech Park / Programme / Student / Other
3D software & lab access	Tech Park / Programme / Student / Other

Other information, comments

This course, and the activities carried out during it, fall under the scope of Section 6 (1) of the University's Intellectual Property Management Regulations, effective September 1, 2021. Accordingly, participating students will enter into an agreement with the University in line with Section 6 (3) of the Regulations, including the transfer of economic and usage rights of intellectual creations produced during the course to the University under the terms specified in the contract. Furthermore, the student is obligated to maintain full confidentiality regarding the entire course—especially concerning the subject of the course, the activities, the works, creations, and other results, as well as the circumstances of their creation—and may not disclose, publish, or make any information public, except as otherwise specified in a signed written agreement necessary for completing the course.

Acceptance of these conditions is a prerequisite for enrolling in the course. By selecting the 'Course Registration' option, the student acknowledges awareness of these conditions and agrees to participate in the conclusion of the relevant agreement.