

Name Smart Mobility Project 1.: **Public Transportation (HÉV)**

Codes M-FR-105-PUBLIC-TRANSPORTATION / ER-PROD-262701-05

Host MA School

Location Classroom / Studio / External locations

Course info			Subject info			
Course Type	Contact hours	Home study hours	Comprehensive Subject	Subject type	Semester	Subject credit value
Practice/Project course	48	72	Smart Mobility Project 1	Compulsory	Fall 2026	10

Recommendation

This course is recommended for students interested in the future of public transportation systems and mobility-related service innovation. Through a collaborative, research-driven design process, students will explore contemporary challenges and speculative future scenarios connected to the HÉV suburban railway system and urban mobility ecosystems. The course is particularly beneficial for students seeking to strengthen their systems-thinking, mobility design, and interdisciplinary collaboration skills.

Short Description

The course focuses on the analysis and rethinking of public transportation systems through the lens of smart mobility and future-oriented design methodologies. During the semester, students work in teams to investigate mobility-related social, technological, infrastructural, and environmental challenges connected to the HÉV suburban railway network. Through research, future forecasting, concept development, and visual prototyping, participants develop speculative and practical mobility concepts that address emerging urban transportation needs. The semester combines lectures by invited experts, workshops, consultations, and collaborative project work.

Name	Contact	Teaching hours	Short Bio	Office Hours
Húnfalvi András	hunfalvi.andras@mome.hu	48	Industrial designer, founder of Flying Objects Design	By appointment

Ruppert Dániel	daniel.ruppert@mome.hu	48	Industrial designer, founder of Ustory Mobility	By appointment
Viktória Szabó	viktoria.szabo@mome.hu	48	Creative strategist, communication designer	By appointment
Ádám Molnár	adamolnardesign.@gmail.com	48	Industrial and transportation designer	By appointment

Course Scheduling				
Course Format			Weekly Appointments	
Lectures, workshops, group consultations, and team-based project development			Monday 13:40–16:30	
Description of each session, its schedule and teaching involvement				
Week	Date	Weekly Content	Workshop/Special Venue	
1	07. 09. 2026.	Kickoff presentation; Guest lecture by a public transportation specialist	Mobility lab	
2	14. 09. 2026.	Future forecasting workshop; Facilitated topic selection workshop	Mobility lab	
3	21. 09. 2026.	Guest lecture by an urbanism expert; Discussion of initial concepts	Mobility lab	
—	—	From this point forward, teams work separately	—	
4	28. 09. 2026.	Topic finalization; Evaluation of first research materials	Mobility lab	
5	05. 10. 2026.	Moodboards and research conclusions	Mobility lab	
6	12. 10. 2026.	Courseweek		
7	19. 10. 2026.	Early-stage concepts and reviews	Mobility lab	
8	26. 10. 2026.	Mid-term concept pitch (joint review with all sections)	Mobility lab	
9	02. 11. 2026.	Concept development and consultations	Mobility lab	

10	09. 11. 2026.	Concept development and consultations	Mobility lab
11	16. 11. 2026.	Concept development, 3D modeling, consultations	Mobility lab
12	23. 11. 2026.	Concept development, 3D modeling, consultations	Mobility lab
13	30. 11. 2026.	Preparation of presentation materials; cross-presentation between sections	Mobility lab
14		Preparation week. Final project refinement	Mobility lab
15		Final presentation preparation	Mobility lab

Course Completion Requirements, Prerequisites and Evaluation				
Students' tasks				
Requirement	Evaluation Method	Evaluation Criteria	Submission Deadline	Weight
Participation, attendance, teamwork	Continuous evaluation and final presentation	See 'General Requirements' section	Final week	20%
Quality and relevance of the concept	Final presentation			20%
Quality of visual materials (sketches, renders, animations, models)	Final presentation			30%
Quality of presentations	Final presentation			10%
Final exam presentation	Final presentation			20%
General Requirements				
Active participation during workshops, consultations, and presentations is mandatory. Students are expected to work collaboratively throughout the semester and to continuously document and develop their design process. Final evaluation is based on the overall quality, consistency, and professional presentation of the project outcome.				

Course Materials and Literature
Mandatory Literature
To be specified during the semester according to selected project directions.
Course Notes and Presentations
Presentations and workshop materials shared by instructors during the semester.
Recommended Literature
Selected readings on mobility design, systems thinking, speculative design, and future mobility scenarios.

Learning Outcomes	
Knowledge	Comprehensive knowledge for designing the future of vehicles, public transportation systems, and mobility. Students will acquire technical, environmental, and social background understanding of mobility systems. Students must adopt a holistic perspective on mobility, examining not only the problems of today's transportation but also forming opinions about the transportation of the future.
Skills	Development of design skills related to vehicles or transportation services, from communication sketches through 3D modeling to project presentations. Students gain practice in working as a team on a topic of their own choice within the scope of the assignment.
Attitude	Approaches complex, system-level problems openly and is able to process them effectively within a team.
Autonomy and Responsibility	Creates an independent design concept and implements it independently and professionally. Acts autonomously and responsibly in multidisciplinary projects and activities.

Exemption
No exemption may be granted from participation in or completion of the course. Partial exemptions may be discussed individually with the instructors and the program lead.

Curriculum Relations		
Subject	Related courses (parallel)	Course grade weight in the subject
Smart Mobility Project 1	Smart Mobility 1: Mercedes Project Participative design	40%
Course prerequisites	Specific prerequisites for elective	Can be taken as an elective?
		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 Regulations of the Moholy-Nagy University of Art and Design.

Materials Needed for the Course	Provider
Sketching materials	Tech Park / Programme / Student

Software licenses (Rhino / Blender / Adobe software – optional)	Tech Park / Programme / Student
---	------------------------------------

Other Information
The course may involve collaboration with external partners and invited experts connected to mobility, transportation, and urban innovation sectors.