

Cím

Smart mobility Project – Mercedes Project

Classroom ☐
 Studio or workshop ☐
 External venue ☐
 Online ☐

Codes M-FR-104-3

Host MOME Future School

	Type	ECTS	Contact hours	Homework hour	Course type	Semester	Unit
Basic info	Practice	5				Fall	

Recommendation

The aim of the design process is to allow students to undertake a full "Advanced Design" project in a university environment, where they will create concept designs, thinking at least 20 years ahead. During the semester, the student will learn about the different phases and contexts of the vehicle design process, to be able to use them routinely in the future. The project will be carried out with the regular support of Mercedes-Benz Designers Robert Lesnik (Head of Exterior Design) and Thomas Sälzle (Design manager).

Short description

During the design process, students will undertake a full "Advanced Design" project in a university environment, where they will develop design concepts for at least 20 years ahead. During the semester, the student will learn about the different stages and contexts of the vehicle design process, in order to be able to use them routinely in the future. The project will be carried out with the regular consulting of Mercedes-Benz Designers Robert Lesnik (Head of Exterior Design) and Thomas Sälzle.

Tasks and activities:

- Research, trend analysis
- Explore the values and history of the brand and category
- Definition of problems, definition of future user needs and use cases, human-centred design
- Creative conceptualisation
- Digital design methods
- Ergonomic concept design
- 3D modelling, rendering and animation

Teachers

Name	Contact	Bio	Opening hours
András Hunfalvi	hunfalvi.andras@mome.hu	https://mome.hu/en/people/andras-hunfalvi	
Dániel Ruppert	ruppert.daniel@mome.hu	https://mome.hu/hu/emberek/ruppert-daniel	

Semester schedule

Course scheduling	Class appointments

#	Date	Educational content
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Requirements and evaluation	Assignments	Evaluation criteria*	Deadline	% in evaluation

Attendance, maximum number of absences: 3

- Presentation of the design concept and the design process on poster
- Digital presentation
- 3D model, animation,
- Occasionally 1:4 scale clay model or 1:18 scale 3d printed model

Assessment criteria*

- Activity on lessons
- Is the topic of the task well-founded, what is the social and/or technological justification, in what kind of environment do you imagine the vehicle?
- The design method used for the topic
- How familiar is the designer with the technical, social, ergonomic and anthropological aspects of the subject?
- To what extent is the solution to the problem in accordance with the brief?
- Does the depth and detail of the task - research, sketches, 3d and physical models - reach the expected level?
- Is the overall design stage – presentation of the concept, its visual and verbal communication, etc. – adequate?

Evaluation's formula:

Presentation at the end-of-semester evaluation

How is the mark calculated (how is the result of each assessed requirement reflected in the final mark? {e.g. proportions, points, weights}):

How the grade is calculated

• Activity, attendance	10 %	91-100%:	excellent (5)
• Concept quality	20 %	81-90%:	good (4)
• Visual materials (sketch, rendering, anim.:)	30 %	71-80%:	average (3)
• Quality of presentations	20 %	61-70%:	adequate (2)
Examination presentation	20 %	0-60%:	unsatisfactory (1)

*in case of more teachers are involved and they evaluate separately, separate assessments per teacher needed

Compulsory readings

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

Recommended readings

Learnings	Knowledge	To gain a comprehensive understanding of how to design the future of mobility and transportation. In the process of planning, students will also gain technical, environmental and social background knowledge of the mobility system. Students will be required to take a holistic approach to mobility, not only by examining the

	transport problems of the present, but also by forming an opinion on the transport of the future.
Skills	Acquire industry standard vehicle design skills from communication drawings to modelling and project presentation. Students will gain practice in developing a topic of their own choice, within the framework of the specification, to meet industry requirements.
Attitude	Smart Mobility Design is a dedicated intensive course in which students experience the project pace and intensity of the industry, preparing them for the challenges of a future internship or live assignment. Students are expected to demonstrate a high level of commitment.
Responsibility	Creates an independent design concept, to be implemented independently and professionally. Works autonomously and responsibly in multidisciplinary projects and activities.

Exemption

- ☒ Exemption from attending and completing the course cannot be granted,
☐ Exemption may be granted from the acquisition of certain competencies and the fulfilment of tasks
☐ Some tasks can be replaced by other activities,
☐ A full exemption can be granted

Curriculum
link

Subject	Related courses (paralells)	Merit rate in the subject
Title of the course to be covered	[This course]	
	Another course	
	Third course	

Course prerequisites	Prerequisites in case of elective	Is it available as an elective?
Paralell with Strategic Design – project „B“		

TechPark

	Resources	
Requests	Personal (expert consultation)	
	Tools	
	Materials	
	Space	

Misc.
information

What equipment does the student need to obtain to complete the lesson?

- Digital drawing board required (available in the Mobility Lab)

What special features will the course have?

- Bi-weekly video calls with Mercedes designers on Wednesdays.