Course description (topics)

<table>
<tr><td colspan="5">Title of the course:
Strategic Smart mobility – Mercedes Project</td></tr>
<tr><td colspan="5">Tutors of the course , contact details: András Húnfalvi, Dániel Ruppert
hunfalvi.andras@mome.hu; ruppert.daniel@mome.hu</td></tr>
<tr><td>Code:</td><td>Related curriculum (programme/level): MA1</td><td>Recommended semester within the curriculum:</td><td>Credit: 5</td><td>Number of class hours:
Student working hours:</td></tr>
<tr><td>Related codes</td><td>Type: (seminar/lecture/class work/consultation, etc.)</td><td>Can it be an elective course? no</td><td colspan="2">In case of elective what are the specific prerequisites:</td></tr>
<tr><td colspan="5">Course connections (prerequisites, parallells):
Paralell with Strategic Design – project „B”</td></tr>
<tr><td colspan="5">Aim and principles of the course:

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).</td></tr>
<tr><td colspan="5">Learning outcomes (professional and general competences to be developed):

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.

Ability:
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.

Autonomy and responsibility:
Creates an independent design concept, to be implemented independently and professionally. Works autonomously and responsibly in multidisciplinary projects and activities.</td></tr>
<tr><td colspan="5">Topics and themes to be covered in the course:

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</td></tr>
</table>

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

Assessment:
(in case of more teachers are involved and they evaluate seperately, separate assessments per teacher needed)

- 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)

Required Literature:

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

Recommended Literature:

OTHER 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.

Recognition of knowledge acquired elsewhere/previously/validation principle:

- No exemption from attending and completing the course will be granted,
- Exemptions from the acquisition of certain competences and the completion of certain tasks may be granted,
- some tasks may be replaced by other activities,
- full exemption may be granted.

Out-of-class consultation times and location: