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 course is to acquire strategic thinking in the broader context of design and design methodology, and to learn about and apply different design and research methodologies. Design projects in the context of this subject should address social, economic and environmental aspects of sustainability. The focus will be on a thorough mapping and understanding of the needs of those involved in the design and the final design concept.</td></tr>
<tr><td colspan="5">Learning outcomes (professional and general competences to be developed):

Knowledge:
1. Has a general knowledge of the processes and concepts underlying their own design activity.
2. Has a high level of knowledge of the most important materials and techniques underlying design activities in the field of design, and the conditions under which these activities are performed.
3. A high level of knowledge of related arts and awareness of the contemporary design world.
4. Intermediate level Knowledge of the common presentation tools, styles and channels.
5. Understands the philosophy of design, (audio)visual arts and architecture.
6. Understands the role and importance of analytical and critical thinking within the discipline.
7. Understands in detail the basic content and general principles of other fields related to design (e.g. economics, culture, futurology, ecology, technology).
8. Familiar with a range of different research methods to identify the needs of stakeholders.

Ability:
1. To adapt and develop design skills, techniques and technologies to address new types of problems in response to current and future social, cultural and economic challenges.
2. Identify and analyse problems that can be solved by design.
3. Develops and evaluates design concepts.Links design concepts to similar resources in other (related) disciplines.
4. Able to make creative use of the technical, material and information resources on which his/her design work is based.
5. Analyses and develops his/her own design and design processes.
6. communicates his/her own ideas and processes to designers in the partner company and to the general public.
7. Is able to collaborate with his/her own professional community.</td></tr>
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8. Able to communicate effectively when collaborating.
9. Able to accept and integrate diverse knowledge into one's thinking.
10. Identifies the needs of stakeholders in the design process, involving them where appropriate.

Attitude:
1. Focuses on the creative aspects of design.
2. An open and inclusive approach to design.
3. Strives to build and maintain professional relationships.
4. Consciously manages interactions (presentation, teamwork, brainstorming, workshops, etc.) that arise during the design process.

Autonomy and responsibility:
1. Develops an independent design concept, which he/she implements independently and professionally.
2. Works autonomously and responsibly in multidisciplinary projects and activities.

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 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: