

<b>Name of subject:</b> <b>Projectwork</b>	<b>NEPTUN-code:</b> RTPPM1IBNE	<b>Number of hours:</b> lec+ gs+ lab 0+0+2	<b>Credit:</b> 4 <b>Requirements:</b> practice mark
<b>Course coordinator:</b> Rita Kendrovics Boda PhD	<b>Title:</b> associate professor	<b>Prerequisite:</b> Technology of specialization III.	
<b>Subject content:</b>			
<p>The purpose of the subject is that the students could use the theoretical knowledge, acquired in the framework of the professional subjects, in practice-oriented projects. The 3-4 strong student groups (occasionally independently as well) learn the workflows – from the raising of the problem through working out the basic ideas, to form experiments – in complex work. The students will get to know the appropriate distribution, time management of the work-phases. They will learn how to make a schedule and to co-ordinate the workflows. After collecting international information and analysing them, the students will design a coordinated exhibition interior in a specific style. They cooperate regularly with their consultants and the competent contact persons of professional organisations and firms. In written form and in presentations, too, the students will report their workflows and results and they will make their portfolios. When carrying out these tasks, in addition to their skill in solving problems, creating forms and in design as well, the adaptability and communication skill of the students will also develop, thus they can get a good background for joining the professional circles.</p>			
<b>Competences to be mastered:</b>			
<p>a) knowledge</p> <ul style="list-style-type: none"> <li>- Knowledge of basic design principles and methods, as well as major production technology procedures and operating processes.</li> <li>- Knowledge of the most important basic materials applied in the special area of product design, their production and their application criteria.</li> <li>- Knowledge of basic construction designs and their dimensioning basics.</li> <li>- Knowledge of the learning, knowledge acquisition, and data collection methods of the special field of product design, their ethical limitations and problem solving techniques.</li> <li>- Knowledge of the most important practical work techniques of their special field.</li> <li>- Knowledge of the ethics and methods of team work.</li> </ul> <p>b) capabilities</p> <ul style="list-style-type: none"> <li>- Able to design the form and construction of relatively simple products by taking into account the limits of production technology, the costs expected, and impacts on the environment.</li> <li>- Able to perform the virtual modelling of product concepts and products using 3D computer-aided design systems as well as to produce their technical documentation.</li> <li>- Able to produce, examine and test real models and prototypes using direct digital production technologies based on both traditional and 3D product models.</li> <li>- Able to master new knowledge by solving practical problems empirically.</li> <li>- Understand and use characteristic online and printed references characteristic of their special field, both in Hungarian and in at least one foreign language.</li> </ul>			

- Able to take part in and also to manage team work.
- Able to initiate, compile, and carry out projects in team work, primarily in a multidisciplinary environment.
- Able to take into account the aspects of the historical, cultural, socio-economic and industrial environment in the process of industrial design and product development.
- Able to analyze design projects by applying design methods and to give methodological reasons for the workflows applied.

c) attitude

- Efforts to make self-education in the special area of industrial product design a continuous process in line with professional objectives.
- Efforts to solve tasks and make management decisions by being aware of the opinions of the colleagues supervised, possibly in cooperation therewith.
- Open to transmitting own knowledge to colleagues.
- Taking care to promote subordinates' professional development, to manage and help such endeavors.
- Taking care of ensuring equal access opportunities in problem solving.

**Bibliography:**

1. Zalavári József: A forma tervezése, designökológia. Budapest, Scolar kiadó, 2008
2. <https://elearning.uni-obuda.hu/> electronic notes and aids prepared by the instructor