Name of subject: **Integrated product design I.**	**NEPTUN-code:** RTXTT1EBNE	**Number of hours:** lec+gs+lab 1+0+3	**Credit:** 5 **Requirements:** practice mark
Course coordinator: Prof. Márta Kisfaludy DLA	**Title:** professor	**Prerequisite:** Form design I.	

Subject content:

Consumer needs, survey of habits and market participants, analysis and feedback into planning. Collection of information. By endorsing design principles, solution of simple design tasks individually and in group work. Product modeling, presentation and evaluation.
Establishing the function structure. Creation philosophy. Model families. Aiding design by computers.
Systemdesign ranges from the suggestion of simple problems to more complicated projects.
The course focuses on the preparation of functional prototypes according to the design tasks.
The subject is focused on product development in a team-work, primarily with preparing functional prototypes according to the designs.

Competences to be mastered:

a) knowledge
- Knowledge of basic design principles and methods, as well as major production technology procedures and operating processes.
- Knowledge of the most important basic materials applied in the special area of product design, their production and their application criteria.
- Knowledge of the ethics and methods of team work.

b) capabilities
- 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.
- 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.
- Able to produce, examine and test real models and prototypes using direct digital production technologies based on both traditional and 3D product models.
- Able to master new knowledge by solving practical problems empirically.
- Able to apply the calculation and modelling principles and methods of special Bibliography: related to industrial product design.
- 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. Kocsis, J.: Menedzsment műszakiaknak.(2. kiadás) Műszaki könyvkiadó, Budapest, 1996
2. Iványi, A.-Hoffer, I.: Innovációs és értékelemző módszertan, AULA, Budapest, 1996
3. Hegedűs, J.: Súlyponteltolódások a termékvilágban – új diszciplínák megjelenése a termékvilágban.
4. https://elearning.uni-obuda.hu/ electronic notes and aids prepared by the instructor