**Integrated product development (ECTS credits: 6)**

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Language: the course is offered in English, Serbian and Hungarian.

**Course description:**

The course covers some aspects of interdisciplinary approach in the process of developing new or redesigning existing products on the market. The product is everything: it can be a chair, a computer, but also software or some other service. It also introduces some organizational aspects of the development process in distributed environments (virtual factory).

This short course would cover the following nine topics, considering the Integrated Product Development: 1. lecture - Introduction 2. lecture - Identifying Customer Needs 3. lecture - Functional Requirements and Decomposition 4. lecture - Design parameters and Engineering parameters (Functional Analysis) 5. lecture - QFD (House of Quality) 6. lecture - Concepts and Embodiments 7. lecture - Design for Excellence DFx  8. lecture - Product lifecycle 9. lecture - IPD in internet surroundings.

**Aims:**

The goals are the following: - The students should accept the idea that the whole life cycle of the product and the product’s surroundings (social, environmental...) have to be considered during the development process, not just the product alone; - The students should be able to identify the necessary steps in the product development process without any assistance; - The students should be able to analyze an existing product and to suggest possible improvements (in general, not in detail) considering the whole life cycle of the product and its surroundings.