**Technological Procedures and Assembly Planning (ECTS credits: 6)**

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

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**Course description:**

The students will learn different methods of production planning, and through some examples, they will practice the production planning tasks, such as assessing the technological feasibility of the part, defining blank, defining the required number and the order of the machining and assembly operations. Decomposition of the operations to particular cuts/ particular assembly sub tasks, detailed planning of the cuts/ assembly sub tasks. They practice both the conventional production planning, and the planning with the aid of computers.

1. The goal and the methods of the production planning
2. Individual and type-based production planning, group technology
3. Technologies of blank production, defining the size of the blank
4. Technologically correct planning
5. Production planning of a short rotational part
6. Production planning of a long rotational part
7. Production planning of a box-shaped part
8. Automated production planning
9. The selection of the assembly method
10. Planning of the conceptual solutions for selected assembly method
11. The degree of the division of labor
12. Technological structures in assembly
13. Assembly costs
14. Ergonomic principles in assembly planning
15. Planning of manual, robotic and automatized assembly

**Aims:**

#### Students should learn the methods of production process planning of different machine elements, and learn the different assembly methods.

#### The students should be able to define the blank parts, to plan the production process, to project technological operations.

#### The students should be able to define the appropriate assembly method, to plan the assembly process and to project assembly operations.

#### Students should learn how they can plan production and assembly processes with the help of computers.

**Learning outcomes:**

The students will get basic knowledge needed for production and assembly process planning. They will be able to solve concrete planning tasks.