



## Advanced Manufacturing - Theory and Practice

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The course of Advanced Manufacturing - Theory and Practice covers the main manufacturing concepts applied in modern industry.

### The following parts of the course are defined as follows:

- 1) Basic manufacturing concepts and modern machining centers. Properties and possibilities of machining tools, new tool materials.
- 2) Trends in the development of computer-aided manufacturing. Preparation of the geometrical parts for machining with computer numerical control (CNC). Integration of Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) systems.
- 3) Feature-based modeling for the exchange of the geometrical and technological data between CAD\CAM systems.
- 4) Postprocessors and code generation for CNC machines. Examples of machining strategies for prismatic and axisymmetric parts.
- 5) Feature-based generation of machining process plans, Computer Aided Process Planning (CAPP).
- 6) Meeting high dimensional and shape requirements using finishing processing. Tools for finish machining of heat-treated components - hard machining.
- 7) Trends in the development of abrasive machining. New grinding tools and machines. Simulation of the grinding process with planetary kinematics.
- 8) Prospects for the development of production processes. Micro- and nano-manufacturing.

<b>Terminy wykładów</b>			
<b>Data</b>	<b>Dzień tyg.</b>	<b>Godzina</b>	<b>Sala</b>
2015-10-05	Pn	12.15-15.00	EA 06/08 (WETI A)
2015-10-06	Wt	12.15-15.00	EA 06/08 (WETI A)
2015-10-07	Śr	12.15-15.00	EA 06/08 (WETI A)
2015-10-08	Cz	12.15-15.00	300 GG
2015-10-09	Pt	12.15-15.00	EA 06/08 (WETI A)