

Code

Course item.....

1. INFORMATION ABOUT THE COURSE**A. Basic information**

Name of course	Machine Building Technology
Study level	<i>first degree</i>
Unit running the study programme	<i>Faculty of Mechanical Engineering</i>
Study programme	<i>Mechanical engineering</i>
Speciality	
Name of teacher (s) and his academic degree	<i>Tadeusz Leppert, PhD</i>
Introductory courses	<i>Machine Orientation, Machine tools, Jigs & Fixtures</i>
Prerequisites	<i>Basic knowledge of theory and practice of machining, forming technologies and materials</i>

B. Semester/week schedule of classes

Semester	Lectures	Classes	Laboratories	Project	Seminars	Field exercises	ECTS
winter /summer	30		15				3

2. EFFECTS OF EDUCATION (acc. to National Qualifications Framework)

Knowledge	<i>on successful completion of the course student is supposed to know theoretical and practical methods of manufacturing by machining processes as well as technological processes design methodology.</i>
Skills	<i>on successful completion of the course student is supposed to select and apply manufacturing processes for a particular machine part, to design blank material and process plan, select cutting parameters, calculate machining time, to determine manufacturing system and its subsystems, work out technological documentation.</i>
Competences	<i>on successful completion of the course student is supposed to be active, creative, innovative, willing to cooperate with colleagues, open to manufacturing novelties.</i>

3. TEACHING METHODS

multimedia lecture, lab, project, discussion, method of cases

4. METHODS OF EXAMINATION

lecture - oral or written exam, oral test, project

5. SCOPE

Lecture	<i>Manufacturing techniques – types, characteristics. Production system, technological process. Technological process design for typical machine parts. Tools and tool materials and application. Machinability of work part material, machine tools and fixture. Mechanization and automation of manufacturing processes.</i>
Laboratory	<i>Application and machining processes used on lathe, drilling, milling, grinding, gear producing machines. Machining accuracy. Machining of cylindrical flat and formed surfaces. Gear machining, Automatic and NC machine</i>
Project	<i>Technological process design for shaft, gear, prismatic part.</i>

6. LITERATURE

Basic literature	<i>Feld M., 2010. Podstawy projektowania procesów technologicznych typowych części maszyn. WNT Warszawa.</i> <i>Olszak W., 2008. Obróbka skrawaniem. WNT Warszawa.</i> <i>Kosmol J., 2001. Automatyzacja obrabiarek i obróbki skrawaniem. Wydawnictwo Politechniki Śląskiej</i>
Supplementary literature	<i>Feld M., 2002. Uchwyty obróbkowe. WNT Warszawa.</i> <i>Kosmol J., 2002. Techniki wytwarzania obróbka wiórowa i ścierna. Wydawnictwo Politechniki Śląskiej</i> <i>Poradnik inżyniera. Obróbki skrawaniem. T III, WNT 1991.</i>