Code ..... **Course item...**

1. INFORMATION ABOUT THE COURSE

A. Basic information

Name of course	***Machine-Tools***
Study level	*first degree*
Unit running the study programme	*Faculty of Mechanical Engineering*
Study programme	*Mechanical engineering*
Speciality	
Name of teacher and his academic degree	*Michał Styp-Rekowski, Professor*
Introductory courses	-
Prerequisites	*Basic knowledge of technical mechanics and of basic of machine building*

B. Semester/week schedule of classes

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

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

Knowledge	*on successful completion of the course student is supposed to identify machine-tools' units and know their way of operation, is able to prepare and perform cycle of machine-tools' state tests.*
Skills	*on successful completion of the course student is able to design basic machine-tools' units.*
Competences	*on successful completion of the course student is able to organize machining processes, prepare and conduct cycle of machine-tools' state tests.*

3. TEACHING METHODS

multimedia lectures, laboratory

4. METHODS OF EXAMINATION

*lectures – oral exam on the end of cycle**;** laboratory – valuation of all written reports and current monitoring of activity during each classes*

5. SCOPE

Lectures	*Classification of machine-tools - criteria. General building and work of some types of machine-tools: lathes, milling machines, drilling machines, grinders, borers, broaching machines, slotters, planers, erosive machines. Processes of workpieces shaping. Control systems of machine-tools units. Tests of machine-tools state – kinds, range and methods. The place and meaning of machine-tools in industry. Development of machine-tools building.*
Classes	*Geometric accuracy of turning and milling machines, stiffness of turning and milling machines, kinematical accuracy of milling machine, standard accuracy tests of lathe and grinding machine.*

6. LITERATURE

Basic literature	*Kosmol J., 2000. Automatyzacja obrabiarek i obróbki skrawaniem. WNT Warszawa.*

	Kwapisz L., Przybył R., Frącki W., 1999. Obrabiarki skrawające do metalu. Wydaw. Polit. Łódzkiej. *Lewandowski W., Styp-Rekowski M., Wocianiec R., 1995. Laboratorium obrabiarek. Skrypt ATR Bydgoszcz.*
Supplementary literature	*Technical Journals: Annals of the CIRP, Mechanik, Inżynieria Maszyn, Przegląd Mechaniczny (last annual sets).*