

Code

Course item.....

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

Name of course	CAD/CAM in Mechanical Engineering
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>Mateusz Wirwicki, MSc</i>
Introductory courses	<i>Technical Drawing, Machine Design</i>
Prerequisites	<i>none</i>

B. Semester/week schedule of classes

Semester	Lectures	Classes	Laboratories	Project	Seminars	Field exercises	ECTS
winter /summer	15		15				2

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

Knowledge	<i>on successful completion of the course student is supposed to create a new drawing based on a standard template, drawing linear objects, creating curves: circles, arcs and ellipses, dimensioning of the distance, the dimensioning of the angles, dimensions for circles and arcs, links to descriptions, creating dimension styles. The laboratory classes based on the lectures, students become familiar with sample applications of computer aided design control programs for CNC machine tools.</i>
Skills	<i>on successful completion of the course student is supposed to, He knows the software for design, is able to do the documentation elements of predesigned.</i>
Competences	<i>cooperates with other students on perfecting the skill which promotes the integration of young students, In class the student learns basic vector objects - gaining the skills of their creation and modification, can manage the features and facilities, drawing and print design. Basic working knowledge of manufacturing techniques and the construction and programming of numerically controlled machine tools.</i>

3. TEACHING METHODS

<i>multimedia lecture, work with the hardware in the lab, instructional videos</i>
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4. METHODS OF EXAMINATION

<i>checking tasks in the classroom, grading homework</i>
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5. SCOPE

Project	<i>Discussion of computer-aided design, students will prepare presentations of assistive technologies design. Technological knowledge and its representation in CAD / CAM.</i>
Laboratories	<i>Setup drawing, coordinates and basic drawing tools, create two-dimensional geometry, modifying the geometry of two-dimensional, the management features of objects, text objects and their styles, introduction to dimensioning,</i>

	<p><i>hatch. Manual programming of the machining cycles using a programming Computer-aided simple example of turning. Design of control programs with 2D and 3D models. Cycles and subroutines. Manual programming and programming for computer-aided, example of a simple milling. Design of control programs 2D models. Automatic and geometric tool radius compensation.</i></p>
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6. LITERATURE

Basic literature	<p><i>Gladfelter D., 2011. AutoCAD 2011 and AutoCAD LT 2011: No Experience Required, Sybex. 1st ed.</i> <i>Banach D.T., Jones T., 2010. Autodesk Inventor 2011, Essentials Plus, Autodesk Press. 1st ed.</i> <i>Pande S.S., 2011. Computer Graphics and Product Modelling for CAD/CAM, Alpha Science International Ltd.</i> <i>Valentino J., Goldenberg J., 2003. Learning Mastercam Mill Step by Step: Book & CD, Industrial Press, Inc.</i></p>
Supplementary literature	<p><i>Each software tutorial AutoCAD / Inventor/Master CAM.</i></p>