Title	Code
Computer Aided Designing (Komp. wspomag. projekt.)	**1010401141010210653**
Field: **EDUCATION IN TECHNOLOGY AND INFORMATICS**	Year / Semester: **2 / 4**
Specialty: **-**	Course: **core**
Hours: Lectures: **1** Classes: **-** Laboratory: **2** Projects / seminars: **-**	Number of credits: **3**
	Language: **polish**

Lecturer:

dr Jerzy Lewiński,
Instytut Mechaniki Stosowanej,
ul. Jana Pawła II 24, 60-965 Poznań,
tel: (061) 6652177,
e-mail: jerzy.lewinski@put.poznan.pl

Faculty:

Faculty of Technical Physics
ul. Nieszawska 13A
60-965 Poznań
tel. (061) 665-3160, fax. (061) 665-3201
e-mail: office_dtpf@put.poznan.pl

Status of the course in the study program:

Core course of the study for Education in Technology and Informatics, Faculty of Technical Physics.

Assumptions and objectives of the course:

Development of student?s ability of 3D modeling of the details of the parts and assemblies of any objects with the help of CAD software. Assessment and optimization of the designed construction with the help of Symbolic Transformation Systems and Finite Element Method.

Contents of the course (course description):

Lectures and computer laboratory exercises including basic knowledge in the realm of construction designing and modeling, in the range defined by the syllabus corresponding to the branch of the study.

Introductory courses and the required pre-knowledge:

General mathematical knowledge, with special attention paid to analytic geometry and calculus of vectors, knowledge of technical mechanics and fundamentals of strength of materials, knowledge of principles of engineering drawing and technical documentation, ability in reading the engineering drawing, and space imagination.

Courses form and teaching methods:

The lectures: the methods of designing and optimization computation, examples of the use of Symbolic Transformation Systems. 3D designing under SolidWorks software. The computer laboratory exercises: modeling the parts and assemblies, making the engineering drawings in SolidWorks. Assessment of the strength of the designed construction.

Form and terms of complete the course - requirements and assessment methods:

Assessment of student?s engagement during the lectures and their abilities during the laboratory exercises. The semester mark is the average of the marks achieved for all the exercises.

Basic Bibliography:

1. Dobrzański T.: Rysunek techniczny maszynowy, WNT, Warszawa, 2002
2. Bieliński A.: Geometria wykreślna, Oficyna Wydawnicza Politechniki Warszawskiej, 2005
3. Rutkowski A.: Części maszyn, Wydawnictwa Szkolne i Pedagogiczne, 2002

Additional Bibliography:

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