STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Computer Aided Design		**1010621151010640508**
Field of study	Profile of study (general academic, practical)	Year /Semester
Mechanical Engineering	**(brak)**	**3 / 5**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Virtual Design Engineering	**Polish**	**obligatory**
Cycle of study:	Form of study (full-time,part-time)	
First-cycle studies	**full-time**	
No. of hours		No. of credits
Lecture: **-** Classes: **-** Laboratory: **2** Project/seminars: **2**		**7**
Status of the course in the study program (Basic, major, other)	(university-wide, from another field)	
(brak)	**(brak)**	
Education areas and fields of science and art		ECTS distribution (number and %)
technical sciences		**7 100%**

Responsible for subject / lecturer:

dr hab inż. Arkadiusz Stachowiak
email: arkadiusz.stachowiak@put.poznan.pl
tel. 665-2655
WMRiT
ul. Piotrowo 3 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Knowledge of technical drawing and numerical methods as carried out in the course of their studies. Knowledge of technical drawings and numerical methods on required area of expertise.
2	**Skills**	Student can: prepare a scheme of arrangement, choose right components and perform basic calculations using provided calculation procedure.
3	**Social competencies**	Student understands the need for continuous learning.

Assumptions and objectives of the course:

Using AutoCAD as aided tool to create technical documentation. Formation the ability to create computer tools to aid design calculations.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Student knows basic features and functions of AutoCAD and drawing and modyfication tools. Student knows how to create basic Delphi code. - [K1A_W12]

Skills:

1. Student can use Delphi to create computer-aided design tools. Student can create computer program to solve given problem. - [K1A_U13 K1A_U14]

Social competencies:

1. Student is able to think and act creatively. - [K1A_K05]

Assessment methods of study outcomes

Examination based on an ongoing review of the Students preparation.

Course description

Knowledge of basic features and functions of AutoCAD. Drawing and modyfication tools. Working with functions: hatching, filling. Tools to support the dimensioning. Practice of Delphi programming ? creating computer-aided design tools. Features of the Delphi (types of components). Creating basic Delphi code. Use complex instructions in Delphi . Creating computer program based on sample calculation algorithm.

Basic bibliography:

1. Tor A., Excel 2002/XP. Visual Basic. TORTECH, Warszawa 2004.
2. Reisdorph K., Delphi 6 dla każdego. Helion, Warszawa, 2001.
3. Pikoń A., AutoCad 2007 PL. Helion, Warszawa, 2007.

Additional bibliography:

Result of average student's workload

Activity	Time (working hours)
1. Preparation for laboratory	28
2. Participation in laboratory exercises	30
3. Capturing the content of the lab exercises and a report	29
4. Preparing for classes of design	15
5. Participation in the activities of design	30
6. Preparation of the draft	30
7. Consultation	8
8. Preparing to pass	8

Student's workload

Source of workload	hours	ECTS
Total workload	177	7
Contact hours	68	3
Practical activities	177	7