STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
(-)		**1010655211010648543**

Field of study	Profile of study (general academic, practical)	Year /Semester
Mechanical Engineering	**(brak)**	**1 / 1**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Virtual Design Engineering	**Polish**	**obligatory**

Cycle of study:	Form of study (full-time,part-time)
Second-cycle studies	**part-time**

No. of hours				No. of credits
Lecture: **9**	Classes: **9**	Laboratory: **-**	Project/seminars: **-**	**2**

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 %)

Responsible for subject / lecturer:

PhD Eng. Jan Górecki
email: jan.gorecki@put.poznan.pl
tel. 61 665 2053
Transport Engineering
ul. Piotrowo 3, 61-139

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The student should have elementary knowledge in the field of economics and economics of industrial enterprises. He fully understands and knows the processes necessary to design industrial machines. He is familiar with the latest trends in the construction of machines, with particular emphasis on the need for automation of production processes and devices used in them.
2	**Skills**	He can prepare and present a short verbal and multimedia presentation devoted to the results of the task entrusted to him. Is able to assess the material, environmental and labor costs to manufacture or modernize a simple machine. He can describe a simple production process.
3	**Social competencies**	The student understands the need and knows the possibilities of continuous training. Is aware of the importance and understands the non-technical aspects and effects of the engineer's activities on organizations. We can think and act in an entrepreneurial way.

Assumptions and objectives of the course:

The main goal of the course is to familiarize the student with the stages of the project life cycle and management methods. The subject in particular deals with the process of initiating and defining a project with particular emphasis on the problems related to the analysis of the logical matrix (LFA).

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

Knowledge:

1. Has in-depth knowledge of entrepreneurship and business economics - [M2_W23]
2. Has basic knowledge of quality management systems - [M2_W13]

Skills:

1. He can advise on the selection of machines for the production line within the machine group covered by the specialty. - [M2_U14]

Social competencies:

1. Is ready to critically evaluate your knowledge and content you receive - [M2_K01]
2. Is ready to recognize the importance of knowledge in solving cognitive and practical problems and to consult experts in the event of difficulties in solving the problem - [M2_K02]

Assessment methods of study outcomes

Exam on the basis of an examination consisting of 10 general-purpose general questions (for the correct answer to each question) 1 point Grading: below 0 ÷ 4 points? Ndst., 5? Dst, 6 points? Dst +, 7 points? Db, 8 points? Db +, 9 points? Bdb).

Project: Credit based on the group project given at the end of the exercise class, which is assessed on the basis of the evaluation card provided by the teacher.

Course description

1. The life cycle of the project
2. Methods of initiating the project
3. Methods of defining the project
4. Initiating the project with technique 6-3-5
5. Description of the effects and causes of a given situation using the problem tree
6. Description of actions and their consequences using the objective tree
7. Assessment of the project objective in the SMART criteria
8. Analysis of the logical matrix (LFA) as a method of defining the project

Basic bibliography:

1. Trocki M., Zarządzanie projektami, Polskie Wydawnictwo Ekonomiczne, 2003
2. Trocki M., Metody i standardy zarządzania projektami, Polskie Wydawnictwo Ekonomiczne, 2017
3. Trocki M., Nowoczesne zarządzanie projektami, Polskie Wydawnictwo Ekonomiczne, 2012

Additional bibliography:

1. Trocki M., Organizacja projektowa: podstawy, modele, rozwiązania, Polskie Wydawnictwo Ekonomiczne, 2014

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	8
2. Consultation of lecture content	2
3. Participation in exercise classes	8
4. Consultation of the content of the classes	2
5. Preparation of the final work	10
6. Preparation for the exam	5
7. Participation in the exam	1
8. Defense of the developed group project	1
9. Preservation of lecture content	6
10. Strengthening the content of exercise classes	6

Student's workload

Source of workload	hours	ECTS
Total workload	49	2
Contact hours	22	1
Practical activities	0	0