STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Introduction to Engineering**		Code **1011101311011120150**
Field of study **Engineering Management - Full-time studies -**	Profile of study (general academic, practical) **general academic**	Year /Semester **1 / 1**
Elective path/specialty **-**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**
Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **full-time**	
No. of hours Lecture: **30** Classes: **15** Laboratory: **-** Project/seminars: **-**		No. of credits **5**
Status of the course in the study program (Basic, major, other) **other**	(university-wide, from another field) **from field**	
Education areas and fields of science and art **technical sciences**		ECTS distribution (number and %) **5 100%**

Responsible for subject / lecturer:

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Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Basic knowledge of secondary school.
2	**Skills**	ability to solve simple tasks
3	**Social competencies**	group work, interest in science

Assumptions and objectives of the course:

-Students should obtain the knowledge of the main problems connected with technology development. They ought to recognize of the logic of changes in production techniques and conjunction of human with the technology and environment. The systemic character of that conjunction is accented. Letting know of students with the contemporary trends in technology development is important for their ability to recognize, evaluation and describing of existing technical means in production and work conditions.

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

Knowledge:

1. has orderly, theoretically supported general knowledge of technical security - [K01-InzA_W01]
2. has basic knowledge of products, equipment, technical systems - [[K01-InzA_W03]
3. knows elementary notions connected with reliability and security in maintaining technical equipment, objects and technical systems - [K01-InzA_W05]

Skills:

1. can acquire, integrate, interpret data from literature, database or other properly matched sources, both in English or other foreign language accepted as an international language of communication within Management Engineering, as well as to draw conclusions, formulate and justify opinions - [K01-InzA_U5]

2. has self-study ability and comprehends it - [K01-InzA_U6]

3. can make use of analytic, simulation and experimental methods to formulate and solve engineering problems - [K1A-InzA_U09]

4. can, while formulating and solving engineering tasks, discern their systemic and non-technical aspects and also socio-technical, organisational and economic approach - [K1A-InzA__U10]

5. can conduct a critical analysis of the ways in which technical solutions function and assess, by means of Management Engineering, the existing technical solutions, in particular machines, equipment, objects, systems, services and processes - [K1A-InzA__U13]

6. can identify and formulate the specification of simple engineering tasks, that are of practical nature, typical of Management Engineering - [K1A-InzA__U14]

Social competencies:

1. understands the need and knows means how to self-study (first, second and third cycle studies, postgraduate studies, qualification courses) - improving professional, personal and social competence; can argument the need to learn for the whole life - [K01-InzA_K1]

2. is aware of the relevance of the study and understands non-technical aspect as well as the consequences of engineering activity, including its impact on environment and taken responsibility of his decisions - [K01-InzA_K2]

Assessment methods of study outcomes

Initial grade:

a)for seminars: based on written quizzes,

b)for lectures: based on written or oral answers to questions on the material covered in the current and previous lectures,

Final grade:

a)for seminars: based on an average of the attained quiz grades and passing an integrative test,

b)for lectures: based on passing a written test on the subjects presented during the lectures.

Course description

-Chosen elements of the history of technology on a background of human evolution and social development. Technological methods concerning materials (e.g. plastic working, founding, machining, heat- and thermo-chemical treatment), energy and information and their technical equipment. Technology in different areas in human activity. Technology and human work. The main problems of the contemporary civilization. Ethical problems of users and creators of technology means and technical devices.

Basic bibliography:

Additional bibliography:

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	30
2. Attendance and active participation in practical classes	15
3. Preparation for the final credits	15
4. Preparation for the final exam	10
5. Exam	2

Student's workload

Source of workload	hours	ECTS
Total workload	135	5
Contact hours	80	3
Practical activities	60	2