STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Statistics**		Code **1011102211010341935**

Field of study **Safety Engineering - Full-time studies - Second-**	Profile of study (general academic, practical) **(brak)**	Year /Semester **1 / 1**

Elective path/specialty **Work Safety Management**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**

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

No. of hours				No. of credits **5**
Lecture: **15**	Classes: **30**	Laboratory: **-**	Project/seminars: **-**	

Status of the course in the study program (Basic, major, other) **(brak)**	(university-wide, from another field) **(brak)**

Education areas and fields of science and art **social sciences** Economics	ECTS distribution (number and %**)** **5 100%** **5 100%**

Responsible for subject / lecturer:

dr Maria Iwińska
email: maria.iwinska@put.poznan.pl
tel. +48(61)6652349
Faculty of Electrical Engineering
ul. Piotrowo 3a, 60-965 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Student knows basic notions in calculus.
2	**Skills**	Student can operate a calculator.
3	**Social competencies**	Student recognizes the necessity in deepening his knowledge.

Assumptions and objectives of the course:

to acquire basic descriptive measures and develop the ability to use these measures to solve application problems.

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

Knowledge:

1. Student knows methods of sampling. - [K2A_W02]

2. Student knows measures of association between two variables. - [K2A_W02]

3. Student knows components of a time series and index numbers. - [K2A_W02]

Skills:

1. Student is able to interpret the information from a sample and to draw conclusions. - [K2A_U8]

Social competencies:

1. Student is able to argue the necessity of continuous learning. - [K2A_K1]

Assessment methods of study outcomes

Forming score:

on the basis of written tests.

Summary score:

the average points obtained by the written tests.

Course description

Graphical descriptions of data.

Measures of location . Measures of variability.

Crosstabulations and scatter diagrams.

Correlation and simple linear regression.

Time series, forecasting, and index numbers.

Basic bibliography:

1. Wasilewska E., Statystyka opisowa od podstaw. Podręcznik z zadaniami, Wydawnictwo SGGW, Warszawa, 2011.

2. Wysocki F., Lira J., Statystyka opisowa, Wydawnictwo Akademii Rolniczej w Poznaniu, Poznań, 2007.

3. Iwińska M., Popowska B., Szymkowiak M., Statystyka opisowa, Wydawnictwo Politechniki Poznańskiej, Poznań, 2011.

Additional bibliography:

1. Sobczyk M., Statystyka opisowa, Wydawnictwo C. H. Beck, Warszawa, 2010.

2. Kowalski J. M., Podstawy statystyki opisowej dla ekonomistów, Wydawnictwo Wyższej Szkoły Bankowej, Poznań-Chorzów, 2006.

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	15
2. Participation in exercises	30
3. Preparation for exercises	30
4. Preparation for tests	30
5. Preparation for lectures	15

Student's workload

Source of workload	hours	ECTS
Total workload	120	5
Contact hours	47	2
Practical activities	30	1