STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Statistics**	Code **1011102111010341935**

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 **technical sciences** **Technical sciences**	ECTS distribution (number and %**)** **5 100%** **5 100%**

Responsible for subject / lecturer:

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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