STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Statistics**		Code **1011105211010341935**

Field of study **Safety Engineering - Part-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) **part-time**

No. of hours Lecture: **12** Classes: **12** Laboratory: **-** Project/seminars: **-**	No. of credits **5**

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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Faculty of Electrical Engineering
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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.

<table>
<tr><th colspan="2">Result of average student's workload</th></tr>
<tr><th>Activity</th><th>Time (working hours)</th></tr>
<tr><td>1. Participation in lectures</td><td>12</td></tr>
<tr><td>2. Participation in exercises</td><td>12</td></tr>
<tr><td>3. Preparation for exercises</td><td>45</td></tr>
<tr><td>4. Preparation for tests</td><td>30</td></tr>
<tr><td>5. Preparation for lectures</td><td>25</td></tr>
<tr><th colspan="2">Student's workload</th></tr>
<tr><th>Source of workload</th><th>hours</th><th>ECTS</th></tr>
<tr><td>Total workload</td><td>114</td><td>5</td></tr>
<tr><td>Contact hours</td><td>24</td><td>1</td></tr>
<tr><td>Practical activities</td><td>12</td><td>1</td></tr>
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