

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 Ergonomics and Work Safety	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 Lecture: 15 Classes: 30 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 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		

<p>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.</p>		
<p>Basic bibliography:</p> <ol style="list-style-type: none"> 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. 		
<p>Additional bibliography:</p> <ol style="list-style-type: none"> 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. 		
<p>Result of average student's workload</p>		
<p>Activity</p>		<p>Time (working hours)</p>
<p>1. Participation in lectures</p>		<p>15</p>
<p>2. Participation in exercises</p>		<p>30</p>
<p>3. Preparation for exercises</p>		<p>30</p>
<p>4. Preparation for tests</p>		<p>30</p>
<p>5. Preparation for lectures</p>		<p>15</p>
<p>Student's workload</p>		
<p>Source of workload</p>	<p>hours</p>	<p>ECTS</p>
<p>Total workload</p>	<p>120</p>	<p>5</p>
<p>Contact hours</p>	<p>47</p>	<p>2</p>
<p>Practical activities</p>	<p>30</p>	<p>1</p>