

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Statistics		Code 1011101321010342598
Field of study Logistics - Full-time studies - First-cycle studies	Profile of study (general academic, practical) general academic	Year /Semester 1 / 2
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 3
Status of the course in the study program (Basic, major, other) other		(university-wide, from another field) university-wide
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 3 100% 3 100%
Responsible for subject / lecturer: -dr Elzbieta Wieczorek email: -elzbieta.wieczorek@put.poznan.pl tel. --+48(61)6652349 -Wydział Elektryczny Instytut Matematyk -ul. Piotrowo 3a 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Student knows basic notions in set theory, logic and calculus.
2	Skills	Student can operate a calculator, a computer and use proposed literature.
3	Social competencies	Student recognizes the necessity in deepening his knowledge.
Assumptions and objectives of the course: to acquire basic statistical methods and develop the ability to use these methods to solve practical engineering problems		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Student has a basic knowledge of probability theory - [K1A_W04]		
2. Student has a basic knowledge of descriptive and mathematical statistics, useful to solve practical engineering problems. - [K1A_W04]		
Skills:		
1. Student is able to interpret the information from a sample and to draw conclusions - [K1A_U05]		
Social competencies:		
1. Student is able to argue the necessity of continuous learning - [K1A_K01]		
Assessment methods of study outcomes		
-Forming score: on the basis of written tests and oral answers. Summary score: the average points obtained by the written tests.		
Course description		

<p>-The basic concepts of probability will be discussed i.e.: probability space, random variables, elements of descriptive statistics, methods of statistical inference - estimation, hypothesis verification and analysis of correlation and regression.</p> <p>Teaching methods: Lecture - informative lecture. Exercises - exercise method, demonstration method.</p>		
<p>Basic bibliography: 1. Kryszewski W., Bartos J., Dyczka W., Królikowska K., Wasilewski M., Rachunek prawdopodobieństwa i statystyka matematyczna w zadaniach, cz. I, II. Wydawnictwo PWN, Warszawa 2. Bobrowski D., Łybacka K., Wybrane metody wnioskowania statystycznego. Wydawnictwo Politechniki Poznańskiej, Poznań</p>		
<p>Additional bibliography: 1. Plucińska A., Pluciński E., Probabilistyka, Wydawnictwo WNT, Warszawa 2. Jasiulewicz H., Kordecki W., Rachunek prawdopodobieństwa i statystyka matematyczna. Przykłady i zadania. Oficyna wydawnicza GiS, Wrocław 3. Kordecki W., Rachunek prawdopodobieństwa i statystyka matematyczna. Definicje, twierdzenia, wzory. Oficyna wydawnicza GiS, Wrocław</p>		
<p>Result of average student's workload</p>		
<p>Activity</p>		<p>Time (working hours)</p>
1. Lectures participation		30
2. Classes participation		15
3. Consultation		4
4. Test		2
5. Results discussion		2
6. Classes preparation		15
7. Test preparation		15
<p>Student's workload</p>		
<p>Source of workload</p>	<p>hours</p>	<p>ECTS</p>
Total workload	83	3
Contact hours	53	2
Practical activities	15	1