STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Statistics in Management		**1010102121010101982**
Field of study: **Civil Engineering second-cykle studies**	Profile of study (general academic, practical): **(brak)**	Year /Semester: **1 / 2**
Elective path/specialty: **Costruction Engineering and 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: Lecture: **1** Classes: **-** Laboratory: **1** Project/seminars: **-**		No. of credits: **2**
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		ECTS distribution (number and %)

Responsible for subject / lecturer:

mgr inż. Maria Kośmieja
email: maria.kosmieja@put.poznan.pl
tel. +48 (61) 665 2474
Faculty of Civil and Environmental Engineering
ul. Piotrowo 5 60-965 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The student has a basic knowledge in data analysis, interdependence of phenomena and statistical inference. The student has an essential knowledge from the management and methods of the planning and the organization of construction processes.
2	**Skills**	The student is able to obtain information from the literature. The student has a skill of the self-education.
3	**Social competencies**	The student is aware of a need for constant updating both supplementing the construction knowledge.

Assumptions and objectives of the course:

Getting to know the basic methods of statistical research. A acquisition the ability of the research, analysis, interpretation of taken results and practical computer using.

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

Knowledge:

1. The student obtained the knowledge in making statistical research - [K_W 01]
2. The student has a knowledge in appointing all statistical measures for conducting a statistical analysis - [K_W 01]
3. The student obtained the knowledge in interpretation of deduction and possibilities of using them in managing of construction - [K_W 11, K_W 07, K_W 10]
4. The student obtained knowledge in the possibility of computer using assisting at conducting K_W 08 statistical surveys - [K_W 10, K_W 11K_W11]

Skills:

1. The student got abilities of getting statistical data and carrying out an analysis of them - [K_U10]
2. The student is able to introduce and to present statistical data with reference to the specificity of managing in the construction - [K_U 10]
3. The student is able to use computer programme in a statistical analysis - [K_U 05]

Social competencies:

1. Student is responsible for the reliability of achieved results - [K_K01, K_K11, K_K02]

Assessment methods of study outcomes

- written test:
Scale of the evaluation in %:
excellent (A) 90% and up
good (B) 85%-89%
average (C) 75%-84%
passing (D) 65%-74%
near failed (E) 55%-64%
failed (F) 0%-54%

-prepare the report of a statistical analysis of the construction market

Course description

Review of techniques and methods of statistical research. Stages of the statistical research. Ranking of data and statistical measures for the structure analysis of the community. House styles of data. Testing and the verification of statistical hypotheses. Analysis of the interdependence of features. Analysis methods of dynamics of phenomena. Computer programme for a statistical analysis

Basic bibliography:

1. Aczel A Statystyka w zarządzaniu Wydawnictwo Naukowe PWN Warszawa 2000
2. Bobrowski D., Maćkowiak-Łybacka K. Wybrane metody wnioskowania statystycznego Wydawnictwo Politechniki Poznańskiej Poznań 2004
3. Lipiec-Zajchowska M. (red.) Wspomaganie procesów decyzyjnych, Statystyka Wydawnictwo C.H.Beck Warszawa 2003

Additional bibliography:

1. Snarska A. Statystyka. Ekonometria. Prognozowanie. Ćwiczenia z Excelem Wydawnictwo Placet Warszawa 2005
2. Sobczyk M. Statystyka Wydawnictwo Naukowe PWN Warszawa 2007
3. Szapiro T. (red) Decyzje menedżerskie z Excelem Polskie Wydawnictwo Ekonomiczne Warszawa 2000

Result of average student's workload

Activity	Time (working hours)

Student's workload

Source of workload	hours	ECTS
Total workload	50	2
Contact hours	35	1
Practical activities	15	1