Statistics

Educational subject description sheet

Basic information

Field of study Business and Finance Management **Speciality** - **Department** Faculty of Management and Social Communication **Study level** second cycle **Study form** full-time degree programme **Education profile** General academic **Mandatory** obligatory	**Education cycle** 2021/22 **Subject code** UJ.WZBFMS.210.5cb4324b93c15.21 **Lecture languages** English **Subject related to scientific research** Yes **Disciplines** Maths **ISCED classification** 0542 Statistics **USOS code** WZ.IEZ-Z/dbfm/I1/S

Subject coordinator	Jurand Skrzypek
Lecturer	Jurand Skrzypek

Period Semester 1	**Examination** assessment **Activities and hours** conversatory classes: 30	**Number of ECTS points** 4.0

Goals

C1	Developing analytical thinking in student
C2	To familiarize students with the basic statistical measures.
C3	Showing the ways of using statistical measures in the management
C4	Making students aware of the limits of measures encountered in statistics

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge – Student knows and understands:			
W1	in-depth applications of statistical methods and IT tools for collecting, analyzing and presenting data in the organization	BFM_K2_W03	credit with grade
W2	Use of statistical methods in the measurement of the company's financial results	BFM_K2_W08	credit with grade
Skills – Student can:			
U1	making use of statistical measures fluently	BFM_K2_U02	credit with grade
U2	to select appropriate statistical tools for the nature of the data	BFM_K2_U04	credit with grade
U3	to make strategic decisions based on the results of statistical surveys	BFM_K2_U05	credit with grade
Social competences – Student is ready to:			
K1	to work with all kinds of datasets.	BFM_K2_K01	credit with grade
K2	to analyse, interpret and present the results, obtained through statistical surveys	BFM_K2_K02	credit with grade
K3	reliable and free from counterfeit work on datasets	BFM_K2_K08	credit with grade

Calculation of ECTS points

Activity form	Activity hours*	
conversatory classes	30	
e-lecture	30	
tasks solving	30	
preparation for the exam	30	
Student workload	**Hours** 120	**ECTS** 4.0
Workload involving teacher	**Hours** 30	**ECTS** 1.0

* hour means 45 minutes

Study content

No.	Course content	Subject's learning outcomes
1.	Basic definitions	W1, K1

2.	Measures of position	W1, W2, U1, U2, U3, K1, K2, K3
3.	Measures of dispersion	W1, W2, U1, U2, U3, K1, K2, K3
4.	Measures of interdependence	W1, W2, U1, U2, U3, K1, K2, K3
5.	Linear regression	W1, W2, U1, U2, U3, K1, K2, K3
6.	Linear trend analysis	W1, W2, U1, U2, U3, K1, K2, K3

Course advanced

Teaching methods:

brainstorming, conversation lecture, lecture with multimedia presentation, discussion, case study, solving tasks, e-learning methods, konsultacje, laboratories

Activities	Examination methods	Credit conditions
conversatory classes	credit with grade	100% of a grade - credit with grade | Credit form: final test in PEGAZ-EGZAMINY system (in case of distance learning) or written test in the Faculty building (in case of stationary learning) | Grading scale [in percent]: <55-66) - 3.0; <66-76) - 3.5; <76-86) - 4.0; <86-94) - 4.5; <94 and more) - 5.0 | Additional activity on remote classes [in percentage points]: - answer in comments +0.5; - uploaded photo of the task solution +1.0; - discussion of the uploaded photo of the task solution +1.5 | Additional activity on stationary classes [in percentage points]: - task solved at the blackboard +1.0 | Maximum two unjustified absences are tolerated.

Entry requirements

Basic mathematics at the high school level.

Literature

Obligatory

1. Madsen B., Statistics for Non-Statisticians, Springer, 2011
2. Connolly T.G., Sluckin W., An Introduction to Statistics for the Social Sciences, Palgrave Macmillan, 1971.
3. Härdle W.K., Klinke S., Rönz B., Introduction to Statistics Using Interactive MM*Stat Elements, Springer, 2015.

Optional

1. Hall A.H, An Introduction to Statistics, The Macmillan Press LTD, 1978
2. Isotalo J., Basics of Statistics, url: http://www.mv.helsinki.fi/home/jmisotal/BoS.pdf.
3. Nicholas J., Introduction to descriptive statistics, 2006, url: https://sydney.edu.au/stuserv/documents/maths_learning_centre/descstats2010web.pdf

Effects

Code	Content
BFM_K2_W03	Absolwent zna i rozumie pogłębione zastosowania metod statystycznych, ekonometrycznych oraz narzędzi informatycznych gromadzenia, analizy i prezentacji danych w organizacji
BFM_K2_W08	Absolwent zna i rozumie współczesne koncepcje oraz metody pomiaru i zarządzania dokonaniami organizacji
BFM_K2_U02	Absolwent potrafi stosować w pracy lub nauce pogłębioną, wyspecjalizowaną wiedzę z innych obszarów niż nauki o zarządzaniu, które są powiązane z kierunkiem Business and Finance Management
BFM_K2_U04	Absolwent potrafi dobierać adekwatne metody i narzędzia do opisu oraz analizy problemów i obszarów działalności organizacji i jej otoczenia
BFM_K2_U05	Absolwent potrafi podejmować decyzje strategiczne oraz proponować rozstrzygnięcia z wykorzystaniem zaawansowanych metod i narzędzi wspomagających procesy podejmowania decyzji
BFM_K2_K01	Absolwent jest gotów do tworzenia i uczestniczenia w pracy zespołów interdyscyplinarnych w środowisku organizacji i poza nim
BFM_K2_K02	Absolwent jest gotów do porozumiewania się z otoczeniem w środowisku organizacji oraz dzielenia się swoją wiedzą z osobami nie będącym specjalistami w zakresie zarządzania; działanie te realizuje różniez posługując się językiem angielskim
BFM_K2_K08	Absolwent jest gotów do przestrzegania i propagowania etycznej postawy i wrażliwości społecznej, również w ramach pełnionych ról organizacyjnych i społecznych