UNIVERSITY
OF ECONOMICS AND HUMAN SCIENCES
IN WARSAW

Field of study:

Finance and Accounting

Subject: Quantitative methods - statistics

Level of study: undergraduate studies
System of study: Full-time
Profile of studies: general academic
Subject: Quantitative methods - statistics

Form of classes and the ECTS points

	Number of hours	ECTS points	Credit
lectures	30		exam
exercises	30		credit with mark
Total	60	5	

Aims of teaching

The objective is to familiarize students with the principles and methods of statistical analysis. The classes present the basic tools and methods which enable quantitative analysis of selected phenomen and interpretation of results presented in graphical or numerical form. [Form of classes: lecture and exercises]

Intended learning outcomes

KNOWLEDGE		
SYMBOL	**DESCRIPTION**	**REFERENCE TO THE PROFILE OUTCOME**
P_W1	The student has knowledge of basic techniques and methods of data presentation.	FiR_WG07_Lic
P_W2	Student has knowledge of the methods of statistical data analysis and the meaning of the results.	FiR_WG07_Lic
P_W3	Student has knowledge of the methods of interdependence analysis and the meaning of results.	FiR_WG07_Lic
P_W4	Student has knowledge of the methods of dynamic analysis and the meaning of results.	FiR_WG07_Lic

SKILLS		
SYMBOL	**DESCRIPTION**	**REFERENCE TO THE PROFILE OUTCOME**
P_U1	Student can analyse given phenomenon and provide the interpretation of the results.	FiR_UW04_Lic FiR_UW05_Lic FiR_UU02_Lic
P_U2	Student can analyse given phenomenon using methods of interdependence analysis and provide the interpretation of the results.	FiR_UW04_Lic FiR_UW05_Lic FiR_UU02_Lic
P_U3	Student can analyse given phenomenon using methods of dynamic analysis and provide the interpretation of the results.	FiR_UW04_Lic FiR_UW05_Lic FiR_UU02_Lic

SOCIAL COMPETENCES		
SYMBOL	**DESCRIPTION**	**REFERENCE TO THE PROFILE OUTCOME**
P_K1	Student can provide critical assessment of the presented data and analysis results, has the basis for continuing to study quantitative analysis methods.	FiR_KK01_Lic

Course content

NUMBER	DESCRIPTION	FORM OF CLASSES	NUMBER OF HOURS
1	Introduction to statistical analysis. Data Types. Grouping and data presentation methods.	lectures exercises	2 / 4 2 / 4
2	Basic measures: mean, mode, median, quartiles.	lectures exercises	3 / 6 3 / 6
3	Measures of variation and dispersion. Range, standard deviation, measures based on quartiles.	lectures exercises	3 / 6 3 / 6
4	Measures of asymmetry.	lectures exercises	2 / 4 2 / 4
5	Measures on concentration. Gini coefficient.	lectures exercises	4 / 8 4 / 8
6	Interdependence analysis. Correlation table, covariance, correlation coefficient.	lectures exercises	3 / 6 3 / 6
7	Interdependence analysis: linear regression function.	lectures exercises	4 / 8 4 / 8
8	Dynamics analysis: index numbers.	lectures exercises	3 / 6 3 / 6
9	Dynamics analysis: aggregate indices.	lectures exercises	2 / 4 2 / 4
10	Dynamics analysis: trend function.	lectures exercises	4 / 8 4 / 8

Conditions of completion

LECTURES

TYPE OF CREDIT	CREDIT INFLUENCE (IN %)
Exam (for the lecturers only)	100

EXERCISES

TYPE OF CREDIT	CREDIT INFLUENCE (IN %)
Class work	100

Teaching methods

- lectures
- exercises
- groupworks

Reading (compulsory)

- Cochran J.J., Anderson D.R., Camm J.D., Williams T.A., Sweeney D.J... Statistics for Business and Economics (International Edition) 2013

Reading (additional)

- Kuszewski T., Sielska A.. On the Methods of Ranking Countries. [in:] Data Analysis Methods for Modelling and Forecasting Economic Processes, ed. J.Pociecha, pp. 76-85 2011
- Rosenthal G., Rosenthal J.A.. Statistics and Data Interpretation for Social Work 2011
- Anderson D.R., Sweeney D.J., Williams T.A., Freeman J., Shoesmith E.. Statistics for Business and Economics 2010
- Mimmack G.M., Meyer D.H., Manas G.J.. Introductory Statistics for Business. The Analysis of Business Data. 2001
- Levin R.I., Rubin D.S., Rastogi S., Siddiqui M.H.. Statistics for management. 7e 2016

Odniesienie efektów przedmiotowych do efektów kierunkowych, treści kształcenia, metod weryfikacji

SYMBOL	REFERENCE OF A GIVEN OUTCOME TO THE PROFILE OUTCOME	REFERENCE OF A GIVEN OUTCOME TO THE COURSE CONTENT	REFERENCE OF A GIVEN OUTCOME TO THE VERIFICATION METHODS
KNOWLEDGE			
P_W1	FiR_WG07_Lic	1 2 3 4 5 6 7 8 9 10	class work final exam Ability to work in the team and hold discussion
P_W2	FiR_WG07_Lic	1 2 3 4 5 6 7 8 9 10	class work final exam Ability to work in the team and hold discussion
P_W3	FiR_WG07_Lic	6 7	class work final exam Ability to work in the team and hold discussion
P_W4	FiR_WG07_Lic	8 9 10	class work final exam Ability to work in the team and hold discussion
SYMBOL	REFERENCE OF A GIVEN OUTCOME TO THE PROFILE OUTCOME	REFERENCE OF A GIVEN OUTCOME TO THE COURSE CONTENT	REFERENCE OF A GIVEN OUTCOME TO THE VERIFICATION METHODS
SKILLS			
P_U1	FiR_UW04_Lic FiR_UW05_Lic FiR_UU02_Lic	2 3 4 5 6 7 8 9 10	class work final exam Ability to work in the team and hold discussion
P_U2	FiR_UW04_Lic FiR_UW05_Lic FiR_UU02_Lic	6 7	class work final exam Ability to work in the team and hold discussion

SYMBOL	REFERENCE OF A GIVEN OUTCOME TO THE PROFILE OUTCOME	REFERENCE OF A GIVEN OUTCOME TO THE COURSE CONTENT	REFERENCE OF A GIVEN OUTCOME TO THE VERIFICATION METHODS
SKILLS			
P_U3	FiR_UW04_Lic FiR_UW05_Lic FiR_UU02_Lic	8 9 10	class work final exam Ability to work in the team and hold discussion
SYMBOL	REFERENCE OF A GIVEN OUTCOME TO THE PROFILE OUTCOME	REFERENCE OF A GIVEN OUTCOME TO THE COURSE CONTENT	REFERENCE OF A GIVEN OUTCOME TO THE VERIFICATION METHODS
SOCIAL COMPETENCES			
P_K1	FiR_KK01_Lic	1 2 3 4 5 6 7 8 9 10	class work final exam Ability to work in the team and hold discussion