UNIVERSITATEA BABEŞ-BOLYAI
BABEŞ-BOLYAI TUDOMÁNYEGYETEM
BABEŞ-BOLYAI UNIVERSITÄT
BABEŞ-BOLYAI UNIVERSITY
TRADITIO ET EXCELLENTIA

FACULTATEA DE BUSINESS IN PARTNERSHIP
Facultatea de Business

Str. Horea nr.7
Cluj-Napoca, 400174
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SYLLABUS
Academic year 2023-2024

1. Information regarding the program

1.1. Higher education institution	Babeș-Bolyai University
1.2. Faculty	Business
1.3. Department	Business Administration
1.4. Field of study	Business Administration
1.5. Study cycle	Master
1.6. Study program / Qualification	International Business Administration

2. Information regarding the course

2.1. Name of the course				Econometrics			
2.2. Code		IME0006					
2.3. Course coordinator				Cristian Chifu, PhD			
2.4. Seminar coordinator				Cristian Chifu, PhD			
2.5. Year of study	I	2.6. Semester	2	2.7. Type of evaluation	E	2.8. Type of course	compulsory

3. Total estimated time (hours/semester of didactic activities)

3.1. Hours per week	4	Of which: 3.2. lecture	2	3.3 seminar/laboratory	1
3.4. Total hours in the curriculum	42	Of which: 3.5. lecture	28	3.6. seminar/laboratory	14
Time allotment:					ore
Learning using manual, course support, bibliography, course notes					28
Additional documentation (in libraries, on electronic platforms, field documentation)					28
Preparation for seminars/labs, homework, papers, portfolios and essays					28
Tutorship					2
Evaluations					4
Other activities:	Final exam preparation				18
3.7. Total individual study hours					108
3.8. Total hours per semester					150
3.9. Number of ECTS credits					6

4. Prerequisites (if necessary)

4.1. curriculum	
4.2. competencies	

5. Conditions (if necessary)

5.1. for the course	classroom with computer and projector;
5.2. for the seminar /lab activities	classroom with computer and projector;

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6. Specific competencies acquired

Professional competencies	C1 In-depth knowledge and systematic use of the set of information resulting from the theoretical, methodological, legislative, and practical developments specific to business administration at international level
Transversal competencies	CT1. Promoting the principles, norms and values of professional ethics in conditions of professional autonomy and independence.

7. Objectives of the course (outcome of the acquired competencies)

7.1. General objective of the course	• Learning the econometrics principles and understanding its principles as a tool for quantitative analysis
7.2. Specific objective of the course	• the ability to use the statistical and econometrical language and acquire knowledge and skills in an area with a very large application at macro and micro level: econometrics • develop skills of data analysis that describes an economic phenomenon • development of communication skills in econometric language.

8. Content

8.1. Course	Teaching method	Remarks
Introduction in econometrics • History of Econometrics. • Methodology of Econometrics.	interactive discussion	1 course
A review of some statistical concepts • Basic information's (elements, population, sample, data, variables) • Working with samples • From sample to population (estimators, hypothesis testing)	interactive discussion	1 course
The linear regression model: two-variable model • Population regression function • Sample regression function • Estimation of parameters: Ordinary least squares • Hypothesis testing • Coefficient of correlation. Coefficient of determination • Estimation and Forecasting	interactive discussion	2 courses
Multiple regression • The three-variable linear regression model • Estimation of parameters • Hypothesis testing in multiple regression • Adjusted R^2 • Estimation and Forecasting • Removing explanatory variables from the model • Adding explanatory variables to the model	interactive discussion	1 course
Functional forms of regression models • Log-linear model (multiplicative) • Semilog model (exponential) • Lin-log model (logarithmic X)	interactive discussion	2 courses

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• Reciprocal model • How to compare models • Multiple log-linear model • Restricted least-squares method • Polynomial model		
Regression on dummy explanatory variables • ANOVA models • ANCOVA models	interactive discussion	1 course
Regression Analysis in Practice • Multicollinearity • Heteroscedasticity • Autocorrelation	interactive discussion	3 courses
Dynamic economic models • Autoregressive models • Distributed lag models	interactive discussion	1 course
Project	interactive discussion	1 course
Revision	interactive discussion	1 course
Bibliography	1. Gujarati, D., Porter, D.C., Basic Econometrics. New York: McGraw-Hill, 2009 2. Ruud, P.A., Classical Econometric Theory, Oxford University Press, 2000. 3. Wooldridge, J.M., Introductory Econometrics, South-Western College Publishing, 2000. 4. Reader_Econometrics_2022_2023 (Course Teams Class)	

8.2. Seminar	Teaching method	Remarks
Introduction in econometrics • History of Econometrics. • Methodology of Econometrics.	interactive discussion	1 seminar
A review of some statistical concepts • Basic information's (elements, population, sample, data, variables) • Working with samples • From sample to population (estimators, hypothesis testing)	interactive discussion	1 seminar
The linear regression model: two-variable model • Population regression function • Sample regression function • Estimation of parameters: Ordinary least squares • Hypothesis testing • Coefficient of correlation. Coefficient of determination • Estimation and Forecasting	interactive discussion	2 seminars
Multiple regression • The three-variable linear regression model • Estimation of parameters • Hypothesis testing in multiple regression • Adjusted R^2 • Estimation and Forecasting • Removing explanatory variables from the model • Adding explanatory variables to the model	interactive discussion	1 seminar

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Functional forms of regression models • Log-linear model (multiplicative) • Semilog model (exponential) • Lin-log model (logarithmic X) • Reciprocal model • How to compare models • Multiple log-linear model • Restricted least-squares method • Polynomial model	interactive discussion	2 seminars
Regression on dummy explanatory variables • ANOVA models • ANCOVA models	interactive discussion	1 seminar
Regression Analysis in Practice • Multicollinearity • Heteroscedasticity • Autocorrelation	interactive discussion	4 seminars
Dynamic economic models • Autoregressive models • Distributed lag models	interactive discussion	1 seminar
Revision	interactive discussion	1 seminar

Bibliography	1. Gujarati, D., Porter, D.C., Basic Econometrics. New York: McGraw-Hill, 2009 2. Ruud, P.A., Classical Econometric Theory, Oxford University Press, 2000. 3. Wooldridge, J.M., Introductory Econometrics, South-Western College Publishing, 2000. 4. Reader_Econometrics_2022_2023 (Course Teams Class)

9. Corroborating the content of the course with the expectations of the epistemic community, professional associations and representative employers within the field of the program

- The course content is correspondence with what is done in other universities in the country and abroad.
- To adapt to the market demands of the content's meetings were held with representatives of the business community.

10. Evaluation

- **The same evaluation criteria hold for all exams sessions.**
- **In order to be able to cumulate the points obtained during the semester, it is mandatory to obtain minimum 5 (five) in the final exam.**

Type of activity	10.1 Evaluation criteria	10.2 Evaluation method	10.3 Weight in the final grade
10.4. Course	• correct logical and coherent application of the concepts learned • logical and accurate explanation and interpretation of the results;	final exam	50%

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10.5. Seminar/lab activities	• the ability to apply concepts learned in practice • correct logical and coherent application of the concepts learned • economic explanation of the results • interest in the individual preparation throughout the whole semester	applicative activities (projects, essays, reports, etc.) solving tasks during the semester	30% 20%
10.6. Minimum performance standards			
➢ Knowledge of the fundamental concepts and their applicate examples. ➢ The economic interpretation of the results.			

Date	Signature of course coordinator	Signature of seminar coordinator
29.09.2023	Ioan Cristian CHIFU, PhD	Ioan Cristian CHIFU, PhD

Date of approval	Signature of the Head of department
11.10.2023	Ioan Cristian CHIFU, PhD