Degree of higher education - Bachelor
Specialty   071 Accounting and Taxation
Educational programs "Accounting and Audit"
Year of study __2 (3) __, semester _4 (5)_
Form of study _____ full-time _____ (full-time, external)
Number of ECTS credits ___5 (4)_____
Language of teaching __English __ (Ukrainian, English, German)

Course lecturer	_PhD, Associate Professor **Voliak L.R.**_____
Lecturer contact information (e-mail)	_____
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Course page in eLearn	**https://elearn.nubip.edu.ua/course/view.php?id=1744**

DESCRIPTION OF THE COURSE

(up to 1000 printed characters)

Econometric models and methods are applied in the daily practice of virtually all disciplines in business and economics like finance, marketing, microeconomics, and macroeconomics. Decision making in business and economics is often supported by the use of quantitative information. Econometrics is concerned with summarizing relevant data information by means of a model. Such econometric models help to understand the relation between economic and business variables and to analyse the possible effects of decisions.

Econometrics is an interdisciplinary field. It uses insights from economics and business in selecting the relevant variables and models, it uses computerscience methods to collect the data and to solve econometric models, and it uses statistics and mathematics to develop econometric methods that are appropriate for the data and the problem at hand.

The result of studying the discipline is the acquisition by students of such *General competence:* ability to learn and be ready to learn and apply the acquired knowledge; ability to analyze and synthesize as a tool for identifying problems and making decisions to solve them based on logical arguments and verified facts; ability to be critical and self-critical; ability to think flexibly and competently apply the acquired knowledge in professional activities; ability to communicate in state and foreign languages both orally and in writing; skills in the use of modern information and communication technologies; ability to present the results of research. *Special (professional) competence:* ability to use mathematical tools to study economic processes, solve applied economic and optimization problems in the field of accounting, auditing and taxation.

COURSE STRUCTURE

Theme	Hours (lectures / laboratory, practical, seminar)	Learning results	Task	Evaluation
Module 1				
Theme 1. Subject, methods and objectives of discipline	2/2	Students should know: the role of econometric studies in economics. Object, subject, goals, tasks and structure of the course. Place and course importance among basic disciplines. General view of a linear econometric model, its structure and stages of construction. The concept of the main principles of the classical correlation econometric analysis. The concept of multicollinearity, methods and characteristics of its identification. The concept of heteroscedasticity and methods of its study. The impact of heteroscedasticity on the properties of parameter estimates.	Students will enhance their understanding and acquire practical skills by working through the exercises, which are of three types. Theory exercises on derivations and model extensions. Simulation exercises illustrating statistical properties of econometric models and methods. Empirical exercises on applications with business and economic data sets to solve questions of practical interest.	Execution and delivery of laboratory works - credited. Module: descriptive part 100; test part 30 * 0.1; Independent work - according to the evaluation journal in eLearn.
Theme 2. Methods of the general linear model	2/2			
Theme 3. Multicollinearity and its impact on the estimation of the model parameters	4/4			
Theme 4. Generalized least squares	4/4			
Theme 5. Econometric model of the dynamics	2/2			
Total for module 1	**14/14**			**100**
Module 2				
Theme 6. Empirical methods of quantitative analysis based on statistical equations	2/2	Students should know: concept of autocorrelation. The nature and consequences of autocorrelation in econometric models. Check for autocorrelation. Durbin-Watson criterion. Causes of correlation appearance between explanatory variables and residues. Estimation of model parameters using	Tasks of practical work. Writing tests, essays. Doing independent work (including in elearn) Problem solving, presentations etc.	Execution and delivery of laboratory works - credited. Module: descriptive part 100; test part 30 * 0.1;
Theme 7. Construction an econometric model with the autocollinearity remains operations	4/4			

Theme 8. Methods of instrumental variables	4/4	instrumental variables. The concept of lag and lagged variables		Independent work - according to the evaluation journal in eLearn.
Theme 9. Distributed lag models	2/2			
Theme 10. Econometric models on the basis of system structural equations	2/2			
Theme 11. Econometric modeling based on nonlinear regression	2/2			
Total for module 2	**16/16**			**100**
Educational work				**70**
Exam Test				**30**
Total for Course				**100**

EVALUATION POLICY

Deadline and recompilation policy:	Works that are submitted in violation of deadlines without good reason are evaluated at a lower grade. Rearrangement of modules takes place with the permission of the lecturer if there are good reasons (for example, hospital).
Academic Integrity Policy:	Write-offs during tests and exams are prohibited (including the use of mobile devices). Course papers, abstracts must have correct text references to the literature used
Visiting policy:	Attendance is mandatory. For objective reasons (for example, illness, international internship) training can take place individually (in online form in consultation with the dean of the faculty)

GRADING SCALE

Rating of the applicant of higher education, points	National assessment for the results of examinations	
	Exam	**Credit**
90-100	excellent	credited
74-89	good	
60-73	satisfactorily	
0-59	unsatisfactorily	not credited