

**EDUCATIONAL-METHODOLOGICAL SUPPORT AND
PRACTICAL RECOMMENDATIONS FOR THE FORMATION OF
PRACTICAL-ANALYTICAL COMPETENCIES**

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Abstract: *This article analyzes educational-methodological support and practical recommendations aimed at developing students' practical-analytical competencies in teaching Econometrics. The study highlights the pedagogical possibilities of econometric modeling, regression analysis, statistical software tools, and scientific databases. In addition, methodological aspects of organizing analytical tasks based on real economic data, using digital resources, and applying interactive teaching methods are discussed. The article also presents the academic workload structure of the Econometrics course, the composition of lecture sessions, and a sample lesson plan for the topic "Pair Correlation-Regression Analysis. Linear Regression." The research findings contribute to the development of students' competencies in statistical analysis, econometric modeling, and analytical evaluation of economic processes.*

Keywords: *econometrics, practical-analytical competence, regression analysis, econometric modeling, statistical analysis, digital educational resources, scientific databases, interactive learning, empirical analysis, analytical thinking, dataset, economic models.*

Introduction The effectiveness of developing students' practical-analytical competencies in teaching Econometrics largely depends on the

methodological support of the educational process. In the modern higher education system, methodological support is not limited to traditional textbooks and manuals, but also includes a wide range of didactic tools designed to organize the educational process comprehensively. Particularly in teaching empirically oriented disciplines such as Econometrics, educational-methodological support should be organized through the integration of theoretical knowledge, practical assignments, real databases, statistical software tools, and scientific research platforms.

Such integration contributes to developing students' competencies in statistical analysis of economic processes, building econometric models, and analytically interpreting obtained results. The methodological content of the Econometrics course primarily involves systematic study of the fundamental theoretical concepts of the discipline. Econometrics textbooks consistently explain the theoretical foundations of modeling economic processes, the structure of regression models, statistical assumptions, and methods of parameter estimation, which serve as a methodological basis for developing analytical thinking among students.

However, modern pedagogical approaches emphasize that theoretical knowledge alone is insufficient; it is also necessary to integrate it with practical activities aimed at applying knowledge in real economic situations. Therefore, methodological support in teaching Econometrics should focus on integrating theoretical knowledge with practical analytical processes.

Methodological Foundations of Econometrics

Classical econometric methodology considers mathematical models and statistical methods as the main research tools for studying economic processes. This methodology includes stages such as problem formulation, data collection, model specification, parameter estimation, and model diagnostics. These stages serve as an important methodological basis for developing students' analytical activities.

Therefore, in teaching Econometrics, educational-methodological support should be developed according to the modeling cycle, meaning that each theoretical topic should be reinforced through practical analytical assignments.

Modern approaches to econometric analysis also require the use of statistical software tools. In empirical economic analysis, regression models are widely constructed and diagnostic tests are conducted using statistical packages such as R, Stata, EViews, SPSS, and others. These software tools provide opportunities to work with real data and contribute to developing students' analytical thinking skills.

In the modern higher education environment, scientific databases and research platforms are also important elements of methodological support. International scientific platforms provide broad access to econometric research articles, datasets, and statistical analysis tools. Such platforms help students develop skills in working with scientific literature, analyzing economic data, and conducting empirical research.

Use of Digital Educational Resources and Scientific Databases

In teaching Econometrics, the development of students' practical-analytical competencies is closely connected with the effective use of digital resources and scientific databases. This discipline requires students not only to master theoretical knowledge but also to work with real statistical data, construct econometric models, and analytically interpret results.

The methodology of using empirical economic data includes stages such as identifying economic problems, collecting statistical data, developing model specifications, estimating parameters, and interpreting results. This methodology allows identifying causal relationships between economic phenomena and serves as an important tool for making scientifically grounded economic decisions.

Econometric research methods include regression analysis, panel data models, time series analysis, and other statistical methods. These methods make it possible to identify relationships between economic processes and forecast development trends.

General Academic Workload of the Course

Indicator	Information
Course Name	Econometrics
Course Code	EKMET1405
Educational Direction	60410600 – Banking
Course Type	Compulsory
Academic Year	2025–2026
Semester	4
Form of Education	Full-time
Credits	5 credits
Total Study Hours	150 hours
Lecture Hours	24 hours
Practical Classes	36 hours
Independent Study	90 hours
Assessment Form	Examination (test)
Language of Instruction	Uzbek

Lecture Sessions (24 Hours)

№	Topic	Hours
M1	Fundamentals of Econometric Modeling	2
M2	Fundamentals of Probability Theory and Mathematical Statistics	2
M3	Pair Correlation-Regression Analysis. Linear Regression	2
M4	Multifactor Econometric Analysis	2
M5	Partial Regression Equation	2

M6	Evaluation of Econometric Models. Time Series	2
M7	Econometric Models in the Form of Equation Systems	2
M8	Applied Econometric Models	2
M9	Forecasting Economic Indicators	2
M10	Stationary Series. ARMA Model	2
M11	Dynamic Econometric Models	2
M12	Information Technologies in Econometric Research	2
	Total	24 hours

Lesson Plan on “Pair Correlation-Regression Analysis. Linear Regression”

In teaching Econometrics, the topic “Pair Correlation-Regression Analysis. Linear Regression” plays an important role in developing students’ practical-analytical competencies. This topic develops skills in identifying relationships between economic processes, constructing regression models based on statistical data, and economically interpreting the obtained results.

Sample Lesson Plan for an 80-Minute Lecture Session

Stage	Time	Teacher Activity	Student Activity	Method
Organizational Part	5 min	Announces the topic	Prepares for the lesson	Conversation
Motivation	10 min	Presents a real economic example	Expresses opinions	Problem-based question
Theoretical Explanation	20 min	Explains regression models	Takes notes	Explanation
Graphical Analysis	15 min	Demonstrates scatter diagrams	Analyzes graphs	Visual analysis

Model Interpretation	15 min	Explains parameters	Analyzes examples	Analytical method
Reinforcement	10 min	Gives mini assignments	Answers questions	Interactive method
Final Conclusion	5 min	Summarizes the lesson	Draws conclusions	Reflection

The lesson plan integrates theoretical knowledge with analytical tasks and real economic examples. As a result, students not only master the theoretical foundations of regression analysis but also develop skills in drawing analytical conclusions based on economic data.

Conclusion The formation of practical-analytical competencies in teaching Econometrics requires effective use of modern pedagogical approaches, digital educational resources, and statistical software tools. Integrating theoretical knowledge with practical analysis based on real economic data contributes to the development of students' analytical thinking.

Furthermore, activities focused on interactive methods, working with datasets, constructing regression models, and economically interpreting results develop students' independent thinking, statistical analysis, and scientific research competencies. Consequently, the process of teaching Econometrics is organized not only around theoretical knowledge but also through integration with practical and research activities.

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