MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION
OF THE REPUBLIC OF UZBEKISTAN
KARSHI STATE TECHNICAL UNIVERSITY

"APPROVED"
Rector of Karshi State Technical University
_____Sh.K.Nematov
"___" _____2025

APPLIED ECONOMETRICS
MODULE GUIDE

Field of Knowledge:	400000 –	Business, Management, and Law
Field of Education:	410000 –	Business and Management
Field of Study:	60410100 –	Economics

Module links

Module Title	Applied econometrics
Code (if applicable)	AEKMET
Courses (if applicable)	2
Module teaching semesters	4
Language	Uzbek
Curriculum relevance	Compulsory
Type of Instruction, Contact Hours	Lecture, Practical, laboratory
Workload	Total workload: 150 hours. Auditory hours: 60 hours; lecture: 30 hours, practical lessons: 14 hours, laboratory: 16 hours; self-study: 90 hours.
Credit Points	5
Recommended previous subjects	Introduction to econometrics, Economic theory, Information and communication technologies and systems in the economy, Statistics

Module objectives / expected learning outcomes	Teaching students to effectively use practical methods and modern software tools in modeling, analyzing, and forecasting economic processes based on real (empirical) data. Developing skills in constructing econometric models, their verification, interpreting results in economic terms, and applying them when making real economic decisions. Goals allow students to learn: • collection, cleaning and preparation of economic and statistical data from various sources; • practical construction and evaluation of regression models (pair, multi-factor, linear, and non-linear); • checking the statistical correctness (diagnostics) of models: autocorrelation, heteroscedasticity, multicollinearity; • analysis of time series, use of forecasting and sustainability criteria; • performing practical calculations in software tools (Excel, EViews, Stata, R, etc.); • applying the results obtained to economic policy, management, and investment decisions. Expected results from teaching the module 1. Theoretical and practical knowledge. Students will gain thorough practical knowledge of the stages of constructing econometric models, parameter estimation methods (OLS, GLS, ML), statistical criteria, model selection, and diagnostics. 2. Practical calculation skills. Students learn to work with real data, process it, evaluate regression results, and draw conclusions about model quality. 3. Use of software tools. In programs such as Excel, EViews, Stata, and R: data entry and processing, regression selection, model construction, graphical visualization 4. Analytical thinking and communication. Students draw scientifically grounded statistical conclusions, correctly interpret model results in economic terms, prepare reports and presentations, and defend them orally. 5. Decision-making and implementation. Students will be able to apply the developed applied econometric models in economic forecasting, investment project evaluation, the development of macroeconomic policy recommendations, and the analysis of market processes.
Content	Applied econometrics is one of the most essential basic sciences in economics, studying the applied scientific foundations of modeling, evaluating, and forecasting economic processes based on real, applied statistical data. This discipline applies theoretical econometric knowledge in practice and strengthens the organic connection between economic theory and real economic processes.
Study and exam requirements	**a) to obtain 90-100 points, the student's level of knowledge must meet the following requirements:**

	- be able to fully cover the essence and content of the subject; - maintaining scientific and logical clarity in the presentation of scientific topics, avoiding scientific errors and confusion; - have a clear understanding of the theoretical or practical significance of the subject materials in the subject; - be able to demonstrate the ability to think independently and freely within the framework of the subject; - be able to answer questions clearly and concisely; - the notes are thoroughly prepared; - fully and accurately completed independent assignments; - have fully mastered laws and other regulatory legal documents related to the subject; - has published a scientific article on one of the topics related to the subject; - be able to interpret historical processes; **b) to obtain 70-89.9 points, the student's level of knowledge must meet the following requirements:** - understands the essence and content of the subject and does not allow scientific and logical confusion in the presentation of scientific topics; - understand the practical significance of the subject's content; - performs assigned tasks and assignments in the subject within the framework of the curriculum; - be able to correctly answer the questions posed in the subject; - has a well-formed subject summary; - has fully completed independent assignments in the subject; - has mastered laws and other regulatory documents related to the subject. **c) to obtain 60-69.9 points, the student's level of knowledge must meet the following requirements:** - have a general understanding of the subject; - if certain confusion is allowed in the narrow coverage and presentation of scientific topics; - if the presentation is not fluent; - Obtaining vague and confusing answers to subject-specific questions; - the subject text is not well-formed. **d) with a score of 0-59.9 points, the student's level of knowledge may be assessed as unsatisfactory in the following cases:** - lack of preparation for subject-specific classes; - have no idea about the subject lessons; - if it is noticeable that they have copied subject texts from others; - serious errors and confusion have been made in the text on the subject; - failure to receive answers to questions related to the subject;

	if he doesn't know the subject.
Exam formats	Oral, written, testing
Assessment Tools / Methods	**Completion of subject assignments and successful completion of current, intermediate, and final assessment types.**
List of References	1. Ravshanova M.M. Introduction to econometrics. Study guide. Karshi. Intellect Publishing House. 2022 - p. 191 Kh.S. Mukhitdinov, O.K. Khatamov, A.N. Rakhimov. Fundamentals of econometrics. Study guide. Karshi: Intellect Publishing House. 2021 - p. 287 3. G. Shadmanova, B.O. Rakhmankulova, Kh.Kh. Karimova. Econometrics. Textbook.-T.: TIIAME. 2020 - p. 321. 4. Nasritdinov G. Econometrics. Study guide. ECONOMICS AND FINANCE. 2008 5. N. Dzhuraev, B.E. Eshmatov. Probability theory and mathematical statistics. -T.: "Voris-nashriyot," 2020, - 318 pages. 6. Rakhimov A.N. Introduction to econometrics. Textbook. Karshi. "Economy" Publishing House. 2023 - p. 387. 7. Shodiev T.Sh., Khakimov T.Kh., Boltaeva L.R., Ishnazarov A.I. Econometrics. Study guide. Literature Fund of the Writers' Union of Uzbekistan. 2005
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Place and Date of Approval	Developed and approved by Karshi State Technical University (Report No. 1, 26.08.2025)