



**Syllabus of the course**  
*«Econometrics»*

<b>Specialty</b>	<i>073 Management</i>
<b>Study Programme</b>	<i>Business Administration</i>
<b>Study cycle (Bachelor, Master, PhD)</b>	<i>the first (Bachelor) level of higher education</i>
<b>Course status</b>	<i>Mandatory</i>
<b>Language</b>	<i>English</i>
<b>Term</b>	<i>second year, fourth semester</i>
<b>ECTS credits</b>	<i>5</i>
<b>Workload</b>	<i>Lectures – 18 hours. Practical studies (seminars) – 14 hours. Laboratory studies – 16 hours. Self-study – 102 hours.</i>
<b>Assessment system</b>	<i>Grading</i>
<b>Department</b>	<i>Economic Cybernetics and System Analysis Department, room 419 (main building), (057)702-06-74 (3-56), <a href="https://ek.hneu.edu.ua/">https://ek.hneu.edu.ua/</a></i>
<b>Teaching staff</b>	<i>Prokopovych Svitlana, Associate Professor of the Economic Cybernetics and System Analysis Department, Candidate of Economic Sciences, Associate Professor Guryanova Lidiya, Doctor in Economics, Professor of the Economic Cybernetics and System Analysis Department</i>
<b>Contacts</b>	<i>Prokopovych Svitlana: <a href="mailto:prokopovichsv@gmail.com">prokopovichsv@gmail.com</a> Guryanova Lidiya: <a href="mailto:guryanovalidiya@gmail.com">guryanovalidiya@gmail.com</a></i>
<b>Course schedule</b>	<i>Lectures: according to the timetable Practical studies: according to the timetable Laboratory studies: according to the timetable</i>
<b>Consultations</b>	<i>At the Department of Economic Cybernetics and System Analysis, offline, according to the schedule, individual, PNS chat.</i>

**The purpose** of the course is formation of a system of theoretical knowledge and mastering the ability to build econometric models that quantify the relationship between economic and financial variables, and study the conditions and possibilities of applying econometric methods to solve practical problems in real conditions.

**Structural and logical scheme of the course**

<b>Prerequisites</b>	<b>Postrequisites</b>
High mathematics	Logistics
Informatics	Analytical support of business management
Probability theory and mathematical statistics	Training course «Enterprise management automation»
Statistics	

**Course content**

- Content module 1. Methods of econometric modeling**  
**Topic 1. Econometrics and Econometric Modeling**  
**Topic 2. Simple Linear Regression**  
**Topic 3. Multiple Linear Regression**  
**Topic 4. Multicollinearity and its Impact on Model Parameter Estimates**



**Topic 5. Building a Model with Autocorrelated Residuals**

**Content module 2. Applied econometrics**

**Topic 6. Heteroskedasticity in Econometric Models**

**Topic 7. Nonlinear Econometric Models. Production Functions**

**Topic 8. Econometric Models of Dynamics**

**Topic 9. Econometric Models Based on a System of Structural Equations**

**Teaching environment (software)**

*Multimedia projector, S. Kuznets PNS, Corporate Zoom system, MS Excel*

**Assessment system**

Assessment of students' learning outcomes is carried out by the University according to the cumulative 100-point system.

Current control is carried out during lectures, practical and laboratory classes and aims to assess the level of students' readiness to perform particular tasks, and is assessed by the amount of scored points.

The maximum amount during the semester – 100 points; the minimum amount required is 60 points.

Current control includes the following assessment methods: individual assignments; intermediate test assessments; modular control works.

*More detailed information on assessment and grading system is given in the technological card of the course.*

**Course policies**

Teaching of the course is based on the principles of academic integrity.

Violation of academic integrity includes academic plagiarism, fabrication, falsification, cheating, deception, bribery, and biased assessment.

Students may be brought to the following academic responsibility for breach of academic integrity: repeated assessment of the corresponding type of learning activity.

*More detailed information about competencies, learning outcomes, teaching methods, assessment forms, self-study is given in the Program of the course.*