

Description of Discipline

Title of Discipline / Statistics				
Semester	Duration	Type of Discipline	ECTS Credits	Student Workload
4	120 hrs.	mandatory	4	30 hours of teaching, 90 hours of self-study

Requirements for Participation	Type of examination (oral, written, term paper, etc.)	Methods of teaching and learning (lectures, seminars, etc.)	Discipline Coordinator
Complete general secondary education	Written exam	Lectures, practical classes	M. Yurchenko

Learning Outcomes
<p>GC3. Ability to abstract thinking, analysis and synthesis.</p> <p>GC4. Ability to apply knowledge in practical situations.</p> <p>GC5. Ability to communicate in the state language both orally and in writing.</p> <p>GC6. Ability to communicate in a foreign language.</p> <p>GC7. Skills in the use of information and communication technologies.</p> <p>GC8. Ability to search, process and analyze information from various sources.</p> <p>GC9. Ability to adapt and act in a new situation.</p> <p>GC11. Ability to make informed decisions.</p> <p>SC1. Ability to show knowledge and understanding of the problems of the subject area, the basics of the modern economy at the micro, meso, macro and international levels.</p> <p>SC4. Ability to explain economic and social processes and phenomena on the basis of theoretical models, analyze and interpret the results.</p> <p>SC6. Ability to apply economic and mathematical methods and models to solve economic problems.</p> <p>SC7. Ability to use computer technology and data processing software to solve economic problems, analyze information and prepare analytical reports.</p> <p>SC9. Ability to predict socio-economic processes on the basis of standard theoretical and econometric models.</p> <p>SC10. Ability to use modern sources of economic, social, managerial, accounting information for the preparation of official documents and analytical reports.</p> <p>SC11. Ability to substantiate economic decisions on the basis of understanding the laws of economic systems and processes and using modern methodological tools.</p> <p>SC12. The ability to independently identify problems of an economic nature in the analysis of specific situations, to suggest ways to solve them.</p> <p>SC14. Ability to analyze in depth problems and phenomena in one or more professional areas, taking into account economic risks and possible socio-economic consequences.</p> <p>SC17. Have methods, techniques and tools for assessing the results of the functioning and development of economic systems at the micro, meso, macro levels.</p> <p>SC27. Ability to prepare information, choose the type of model, calculate its parameters and assess adequacy.</p> <p>PLO5. Apply analytical and methodological tools to substantiate proposals and make management decisions by various economic agents (individuals, households, enterprises and public authorities).</p> <p>PLO6. Use professional reasoning to convey information, ideas, problems and ways to solve them to specialists and non-specialists in the field of economic activity.</p> <p>PLO7. Apply appropriate economic and mathematical methods and models to solve economic problems.</p>

- PLO9. To analyze the functioning and development of economic entities, to determine the functional areas, to calculate the relevant indicators that characterize the effectiveness of their activities
- PLO11. Identify sources and understand the methodology for determining and methods of obtaining socio-economic data, collect and analyze the necessary information, calculate economic and social indicators.
- PLO15. Use information and communication technologies to solve socio-economic problems, prepare and present analytical reports.
- PLO16. Be able to think abstractly, apply analysis and synthesis to identify key characteristics of economic systems at different levels, as well as the behavior of their subjects.
- PLO20. To form and evaluate indicators of efficiency of activity of the enterprises and establishments taking into account factors of external and internal environment.
- PLO31. Master the skills of oral and written professional communication in state and foreign languages.
- PLO36. Ability to present and discuss the results obtained and transfer the acquired knowledge.

Contents

MODULE 1. COLLECTION, SYSTEMATIZATION AND SUBMISSION OF STATISTICAL INFORMATION

- Topic 1. Methodological principles of statistics
- Topic 2. Summary and grouping of statistics.
- Topic 3. Statistical indicators.
- Topic 4. Statistical study of variation and distribution.

MODULE 2. METHODS TO STUDY VARIATIONS, DYNAMICS AND RELATIONSHIPS BETWEEN PHENOMENA

- Topic 5. Statistical methods of measuring relationships.
- Topic 6. Statistical study of dynamics.
- Topic 7. Index method.
- Topic 8. Selective method.

Exemplary Literature

Primary:

1. Akimov O.V. Statistics in drawings and schemes: [Textbook]. - K.: ЦНДІ, 2007. - 168 p.
2. Gorkavy V.K. Statistics: [Textbook]. - K.: ЦНДІ, 2012. - 608 p.
3. Yerina A.M., Palyan Z.O. Theory of statistics: Workshop. - K.: Znannia, 2002. - 422 p.
4. Luginin O.E. Statistics: [Textbook]. - K.: ЦНДІ, 2007. - 608 p.
5. Makarenko M.V. Theory of Statistics: Textbook. / M.V. Makarenko, I.M. Goykhman, O.O. Gladchuk, O.V. Shut. - K.: Kondor, 2010. - 236 p.
6. Marmoza A.T. Theory of Statistics [text] textbook. - Kyiv: Center for Educational Literature, 2013. - 592 p.
7. Matkovsky S.O., Marets O.R. Theory of statistics: [Textbook]. - K.: Znannia, 2010. - 535 p.

Supplementary:

1. Adamov V.E. Factor index analysis. - M.: Statistics, 1997. - 302 p.
2. Airapetov A.M. Tables of calculation of average annual growth rates, growth and decline. - M.: Statistics, 1979. - 98 p.
3. Alen R. Economic indices. - M.: Statistics, 1990. - 238 p.
4. Bek V.L. Theory of statistics: a course of lectures: [Textbook]. - K.: ЦНДІ, 2003. - 412 p.
5. Hromyko H.L. General theory of statistics: Workshop. - M.: INFRA-M, 2000. - 286 p.

6. Vainu Ya. Ya. Correlation of time series. - M.: Statistics, 1990. - 344 p.
 7. Gerchuk Ya. P. Graphic methods in statistics. - M.: Statistics, 1992. - 86 p.

Web resources

1. Law of Ukraine "On State Statistics" of 17.09.1992 N 2615-XII (with changes and additions) // [Electronic resource]. - Access mode: www.ukrstat.gov.ua
 2. Law of Ukraine "On Information" of 13.11.1992 (as amended) // [Electronic resource]. - Access mode: www.ukrstat.gov.ua
 3. Statistical data [Electronic resource]. - Access mode: www.ukrstat.gov.ua

Academic staff

Name	Academic degree	Position	Qualification / Academic Discipline	Full-time / Part-time	Area of Teaching
Yurchenko Maryna Yevheniivna	PhD in Physics and Mathematics	Head of the Department of Accounting, Taxation and Audit	Taras Shevchenko State University of Kyiv (1988), specialty – Mechanics, Analytical Mechanics, Dynamics of Rigid Body; qualification – Mechanic, Applied Mathematics; PhD in Physics and Mathematics 01.02.04 Mechanics of Deformed Rigid Body	Full-time	Statistics, Probability Theory and Mathematical Statistics