



Syllabus of the course

«Probability Theory and Mathematical Statistics»

Specialty	<i>D5 Marketing</i>
Study Programme	<i>D5.010 Marketing</i>
Study cycle (Bachelor, Master, PhD)	<i>the first (Bachelor) level of higher education</i>
Course status	<i>mandatory</i>
Language	<i>English</i>
Term	<i>first year, second semester</i>
ECTS credits	<i>5</i>
Workload	<i>Lectures – 24 hours.</i> <i>Practical studies – 14 hours.</i> <i>Laboratory studies – 12 hours.</i> <i>Self-study – 100 hours.</i>
Assessment system	<i>Grading including Exam</i>
Department	<i>Department of Economic and Mathematical Modelling,</i> <i>auditorium 329 of the main building</i> <i>phone: (057)702-04-05 (add. 3-33)</i> <i>website: http://www.vm.hneu.edu.ua/</i>
Teaching staff	<i>Ievgeniia Iuriivna Misiura, PhD in Technics, Associate professor</i>
Contacts	<i>Ie. Iu. Misiura ievgeniia.misiura@hneu.net</i>
Course schedule	<i>Lectures: according to the schedule</i> <i>Practical studies: according to the schedule</i> <i>Laboratory studies: according to the schedule</i>
Consultations	<i>At the Department of Economic and Mathematical Modelling, offline, according to the schedule, individual, PNS chat.</i>
Learning objectives and skills: is forming future specialists' basic mathematical knowledge for solving theoretical and practical problems in professional activity of competent specialists in a service sphere, skills of analytical thinking and skills of using mathematical knowledge for formation of real processes and developments, and for solving economic problems	
Structural and logical scheme of the course	
Prerequisites	Postrequisites
Higher mathematics	Econometrics
	Operations research and optimization methods
	Economics of Enterprise
Course content	
Module 1: Probability Theory	
Topic 1. Empirical and logical foundations of probability theory. Basic theorems of probability theory, their economic interpretation.	
Topic 2. Scheme of independent tests.	
Topic 3. Distribution laws and numerical characteristics of a discrete random variable.	
Topic 4. Distribution laws and numerical characteristics of a continuous random variable.	
Module 2: Mathematical Statistics	
Topic 5. Primary processing of statistical data. Statistical estimations of parameters of a distribution.	
Topic 6. Testing statistical hypotheses	
Topic 7. Elements of correlation theory. Elements of regression theory	
Topic 8. Elements of variance analysis	



Teaching environment (software)

Multimedia projector, S. Kuznets PNS, Corporate Zoom system, software: 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 and practical (seminar) 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 – 60 points; the minimum amount required is 35 points.

Final control is carried out at the end of the semester in the form of an exam (the maximum amount is 40 points, the minimum amount required is 25 points).

Current control includes the following assessment methods: homework; defence of laboratory works; a written test; an independent creative work, a colloquium.

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

Course policies

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

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

Education seekers 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 Course program