Syllabus of the course
«*Probability Theory and Mathematical Statistics*»

Specialty	*073 Management*
Study Programme	*Business Administration*
Study cycle (Bachelor, Master, PhD)	*the first (bachelor) level of higher education*
Course status	*Mandatory*
Language	*English*
Term	*first year, second semester*
ECTS credits	*5*
Workload	*Lectures – 16 hours.*
	Practical studies – 16 hours.
	Laboratory studies – 16 hours.
	Self-study – 102 hours.
Assessment system	*Grading including Exam*
Department	*Department of higher mathematics, economical and mathematical methods, room 329 (main building), phone number (057) 7020405 (or 3-33), department site: http://www.vm.hneu.edu.ua/*
Teaching staff	*Misiura Ievgeniia Iuriivna, PhD in technics, associate professor*
Contacts	*Misiura Ie. Iu.: Ievgeniia.Misiura@hneu.net*
Course schedule	*Lectures: according to the schedule* *Practical studies: according to the schedule* *Laboratory studies: according to the schedule*
Consultations	*At the Department of higher mathematics, economical and mathematical methods, offline, according to the schedule, individual, PNS chat.*

The purpose of the course is forming future specialists‘ mathematical knowledge for solving theoretical and practical economic problems in any sphere of a professional activity

Structural and logical scheme of the course

Prerequisites	Postrequsites
High mathematics	Statistics
Informatics	Econometrics
	Analytical support of business management
	Technologies of decision making in business
	Training course «Enterprise management automation»

Course content

Content module 1 *Probability Theory*

Theme 1. Empirical and logical foundations of probability theory. Basic theorems of probability theory, their economic interpretation.

Theme 2. Scheme of independent tests.

Theme 3. Distribution laws and numerical characteristics of a discrete random variable.

Theme 4. Distribution laws and numerical characteristics of a continuous random variable.

Content module 2 *Mathematical Statistics*

Theme 5. Primary processing of statistical data. Statistical estimations of parameters of a distribution.

Theme 6. Testing statistical hypotheses.

Theme 7. Elements of correlation theory. Elements of regression theory.
Theme 8. Elements of variance analysis.

Teaching environment (software)

Multimedia projector, S. Kuznets PNS, Corporate Zoom system

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 – 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: colloquiums; written tests; homework; laboratory works; independent creative task.

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.