



Syllabus of the course
«Design of corporate information systems»

Specialty	F3 Computer sciences
Study Programme	Computer sciences
Study cycle	Second (master) level of higher education
Course status	Elective
Language	English
Term	first year, 2 semester
ECTS credits	5
Workload	Lectures - 20 hours.
	Practical studies - 0 hours.
	Laboratory studies - 20 hours.
	Self-study - 110 hours..
Assessment system	Exam
Department	Department of Information Systems, room. 413 website: https://kafis.hneu.net
Teaching staff	Volodymyr Tokariiev, Candidate of Technical Sciences, Associate Professor.
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Course schedule	Lectures: Laboratory studies:
Consultations	At the Department of Information Systems, offline, according to the schedule, individual, PNS chat.
The purpose of teaching the discipline “Design of corporate information systems”: acquisition by students of competencies in the field of designing corporate information systems based on modern information technologies for different stages of the life cycle of corporate systems.	
Structural and logical scheme of the course	
Prerequisites	Postrequisites
-	-
Course content	
Module 1. <i>Structure, components and mathematical support of the process of designing corporate systems and networks.</i>	
Topic 1. Principles of construction and components of the process of designing corporate systems and networks.	
Topic 2. Procedures of analysis and structural synthesis in the design of corporate systems and networks.	
Topic 3. Components of the mathematical support of analysis and synthesis procedures.	
Topic 4. Evolutionary methods and genetic algorithms for making optimal decisions when designing modern digital systems.	
Topic 5. Using Genetic Programming for Evolutionary Design of Modern Digital Systems.	



Topic 6. Using intelligent tools to design and implement enterprise systems and networks.

Topic 7. Building Modern Corporate Systems Based on Fuzzy Controllers.

Topic 8. Hardware and software implementation of corporate systems using modern neurocomputer systems.

Teaching environment (software)

Distance learning tools: Personalized learning systems website: <https://pns.hneu.edu.ua>.

Multimedia equipment: projector, laptop / computer, Internet access.

Software: Microsoft Windows, Microsoft Office, Visual Studio, Microsoft SQL Server, Azure, Matlab.

Platform to connect: Zoom.

Assessment system

An university uses 100 ball story system of evaluation of results of studies of bread-winners of higher education. Current control comes true during realization of lecture and laboratory employments and has for an object verification of level of preparedness of bread-winner of higher education to implementation of concrete work and estimated by the sum of the collected points. Final control includes semester control that is conducted in a form to examination. Maximally possible amount of points for current control during a semester for discipline form of control of that examination - 60 and minimum possible amount of points – 35.

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.