Simon Kuznets Kharkiv National University of Economics

Syllabus of the educational discipline
«*Design of program systems interface*»

Specialty	*121 Software engineering*
Educational program	*Software engineering*
Level of education	*The first (Bachelor) level of higher education*
Discipline status	*Mandatory*
Teaching language	*English*
Course / semester	*4 year, 7 semester*
Number of credits ECTS	*5*
Distribution by types of trainings and hours of study	*Lectures – 16 hours.*
	Practical studies (seminars) – 0 hours.
	Laboratory studies – 32 hours.
	Self-study – 102 hours.
Form of final assessment	*Grading including Exam*
Department	*Information Systems, 61166, Kharkiv, Nauky av., 9a, S Kuznets Khneu, 412, 413., http://www.is.hneu.edu.ua/*
Teacher (-s)	*Gryzun L.E., Doctoral Degree in Pedagogical Science, Professor, Full Professor*
Teacher's contacts	*Lgr2007@ukr.net*
Days of the classes	*Lectures: Due to the schedule*
	Laboratory studies: Due to the schedule
Consultations	*Online consultations via PNS chat*

The purpose of the discipline

1) to form students' competencies required for the design of software user interface; 2) to acquaint students with the paradigms of designing high-quality user interfaces; 3) to provide knowledge on design of software systems interface, necessary for further practical activities; 4) to acquaint students with the theoretical basis used for solving problems on program systems interface; 5) to develop students' ability to use the acquired knowledge in design the interface of the developed software; 6) prepare students to design user interfaces in complex and unpredictable conditions, which require the use of new approaches and the generation of new ideas (creativity), evaluation of their own behavior and thinking results, and continuous self-improvement.

Prerequisites for learning

The list of the preliminary learnt disciplines: Object-oriented programming, Algorithms and data structures, Programming.

Content of the educational discipline

Content module 1. *Fundamentals of software systems interface design*

Theme 1. User interface (UI).

Theme 2. Styles, models, methods and tools of design and development of UI.

Theme 3. The human factor, ergonomics, psychology and sociology in the design of interfaces. Rules of UI design.

Theme 4. Methods of visualization of the user interface at designing. Object oriented user interface.

Content module 2. *Technological basics of UI design*

Theme 5. Stages of user interface design. Planning of design works and development of user interface.

Theme 6. Requirements, standards, principles and style guides in UI design. Work environment and user's tasks. Conceptual design.

Theme 7. Front-end user interface development. UX design.

Theme 8. Testing user interface. Electronic support and modern information technologies in UI design.

Theme. 9. Application of eye-tracking technology for learning human-machine interaction.

Material and technical support (software) of the discipline
Figma.com

Course page on the Moodle platform (personal training system)	*https://pns.hneu.edu.ua/*

Assessment system of learning outcomes

The system of assessment of formed students' competencies takes into account the types of classes, which according to the curriculum of the discipline include lectures, laboratory classes, as well as independent work. Assessment of the formed competencies of students is carried out according to the accumulative 100-point system. Control measures include: current control, which is carried out for the semester during lectures, laboratory classes and is estimated by the amount of points scored. Maximum amount for current control is 60 points, the minimum amount that allows a student to take the exam is 35 points. Maximum grades for the exam are 40 points, minimum grades are 25.

The procedure for conducting current assessment of students' knowledge include: the tasks doing at the laboratory classes, presentations and test papers.

More detailed information on assessment is given in the technological card of the discipline.

Discipline policies

Policy of academic integrity is kept during the course studying. Students have to attend lectures and laboratory classes on the discipline. If there are proper reasons, they have to inform the teacher of their absence. Regular studying of lecture material and doing laboratory tasks due to deadlines are obligatory. The tasks of independent work are to be passed in the established terms. The presence of students at the modular and final tests is mandatory. A student studies successfully if he consistently scores the grades during the term and obtain not less than 25 grades at the exam as a form of final control.

More detailed information about competencies, learning outcomes, teaching methods, assessment forms, independent training is given in the working plan of the educational discipline.

Syllabus approved at the meeting of the Department «Information Systems».
Protocol № 7 of 10.06.22