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

Specialty	*121 Software engineering*
Study program	*All educational programs*
Level of education	*First (bachelor) level*
Discipline status	*Mandatory*
Teaching language	*English*
Course / semester	*4 course, 1 semester*
Number of credits ECTS	*5*
Workload	*Lectures – 16 hours.*
	Practical studies (seminars) – 0 hours.
	Laboratory stusies – 32 hours.
	Self-study – 102 hours.
Assessment system	*Grading / Grading including exam*
Department	*Information Systems, 61166,Kharkiv, Nauky av., 9a, S Kuznets Khneu, 412, 413., http://www.is.hneu.edu.ua/*
Teaching staff	*Liudmyla Eduardivna Gryzun, Doctoral Degree in Pedagogical Science, Professor, Full Professor*
Contacts	*Liudmyla Gryzun, Lgr2007@ukr.net*
Course schedule	*Lectures: according to the schedule* *Practical studies: according to the schedule*
Consultations	*Online consultations via* PNS chat.

Learning objectives and skills:

1) formation of competencies necessary for designing software user interfaces; 2) introduce students to the paradigms of designing high-quality user interfaces; 3) to provide knowledge on the design of software system interfaces, necessary for further practical activities; 4) familiarize students with the theoretical basis used in solving problems of building user interfaces; 5) develop in students the ability to use the acquired knowledge when designing the interfaces of the developed software;

Structural and logical scheme of the course

Prerequisites	Postrequsites
Programming the Internet	Complex training
Software engineering	Diploma project
System and business analysis in the IT industry	
Web programming	

Content of the educational discipline

Content module 1: *Basics of software system interface design*

Topic 1. User interface (UI).

Topic 2. Styles, models, methods and means of design and development of IR. Figma as a modern working environment of interface design and prototyping.

Topic 3. Psychological and sociological principles of IC design.

Topic 4. Methods of visualization of the user interface during design. Objectively oriented user interface (OOIC). Using animation in interface design to improve user experience.

Content module 2: *Technological principles of software system interface design*

Topic 5. Stages of user interface design. Planning of design works and development of user interfaces

Topic 6. Conceptual design of IR. Concepts of UX and UI design, their tasks, differences and relationships
Topic 7. Design problems of the web application interface.
Topic 8. Testing user interfaces. Electronic support and modern information technologies in user interfaces.
Topic 9. Features of interface design for mobile applications. Adaptability.

Teaching environment (software)

Multimedia projector, S. Kuznets PNS, Corporate Zoom system, Figma.com

Assessment system

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.

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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.