

# Syllabus of the educational discipline

"Quality of Software and Testing"

Specialty	12 "Information Technology"	
Educational program	121 "Software engineering"	
Level of education	First (bachelor's)	
Discipline status	Base	
Teaching language	English	
Course / semester	3 course / 1 semester	
Number of credits ECTS	5	
Distribution by types of trainings	Lectures – 20 hours.	
and hours of study	Laboratory works – 40 hours.	
	Independent training – 90 hours.	
Form of final assessment	Pass	
Department	Informatics and Computer Engineering, 61166, Kharkiv, ave. Science, 9-a, S. Kuznets KhNEU., main building, room 405. Tel. 702-06-74 (4-38), Emgil: haftet@hngu.adv.ug	
	Email: kafikt@hneu.edu.ua Website: http://www.kafikt.hneu.edu.ua	
Teacher (-s)	Vilkhivska Olga, assoc. prof.	
Teacher's contacts	1982gromova@gmail.com, +38(096)542-99-07	
Days of the classes	<i>Friday</i>	
Consultations	9:00-11:00 department ICE, room 405, by agreement on th	
Consultations	initiative of the applicant	

The purpose of the discipline: expansion and deepening of theoretical knowledge and applied skills and abilities in the basic concepts and definitions in the field of quality assurance and software testing

#### **Prerequisites for learning**

Basic knowledge of the discipline of algorithms and data structure

### Content of the educational discipline

#### **Content module 1 Basics of software testing**

**Theme 1.** *Testing as a way to ensure the quality of the software product* 

**Theme 2.** *Testing at the stage of software product development* 

**Theme 3.** *Testing at the stages of planning and designing a software product* 

**Theme 4.** *Testing at the coding stage.* 

**Theme 5.** *Software errors* 

### **Content module Organization of the software testing process**

**Theme 6.** *Defect tracking system. Testing planning.* 

**Theme 7.** Documentation of test materials.

**Theme 8.** *Automation of testing.* 

Theme 9. Features of industrial testing

**Theme 10.** Software quality problems and practical recommendations.

Material and technical support (software) of the discipline $C, C^{++}$				
Course page on the Moodle platform (personal training system)	Technological map, work program of the discipline, lectures, laboratory works			
······································	https://pns.hneu.edu.ua/course/view.php?id=5294			
Recommended literature				
1. Beiser B. Black box testing. Techno	ology of functional testing / B. Beiser. – St. Petersburg :			

1. Beiser B. Black box testing. Technology of functional testing / B. Beiser. – St. Petersburg : 2004. - 221 p.

2. Dustin Elfrid. Automated Software Testing / Elfrid Dustin, Jeff Rashka, John Paul. – Moscow:



public "LORY", 2003. - 567 p.

3. Crispin L. Flexible testing / L. Crispin, J. Gregory. – Moscow : Publishing House "Williams", 2010. - 464 p.

4. Canner Sam. Software testing. Fundamental concepts of business application management / Sam Kaner, Jack Folk, Eng Kek Nguyen. – Kiev: DiaSoft, 2001. - 544 p.

Assessment system of learning outcomes

Current control, which is carried out during the semester during lectures and laboratory classes and is estimated by the sum of points scored.

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

## Accumulation of rating points in the discipline (*example*)

Types of training	Max points	
Lectures	10	
Laboratory classes	66	
Written Test	24	
Max points	100	

## Transference of Simon Kuznets KHNUE Characteristics of Students' Progress into the System of the ECTS Scale

Total score on a 100-point scale ECTS assessment scale	Assessment on the national scale			
	for exam, differentiated test, course project (work), practice, training	for pass		
90 - 100	Α	excellent		
82 - 89	В	good	pass	
74 - 81	С			
64 - 73	D	satisfactory		
60 - 63	Е			
35 - 59	FX	unsatisfactory	not pass	
1 – 34	F			

#### **Discipline policies**

Active participation in the discussion of educational issues, preliminary preparation for laboratory tasks according to the recommended literature, high-quality and timely performance of tasks.

Conscientious execution of the schedule of classes in the discipline (applicants for higher education who are late for classes are not allowed to take classes).

For educational purposes, when using mobile devices, it is allowed to use only with the permission of the teacher.

The applicant for higher education has the right to find out about the number of accumulated points from the teacher of the discipline and to keep their own records of these points.

More detailed information about competencies, learning outcomes, teaching methods, assessment forms, independent training is given in the Syllabus (working plan)of the educational discipline (https://pns.hneu.edu.ua/course/view.php?id=5294).

Syllabus has been confirmed at the "Informatics and computer technologies" department session 01.10.2020 protocol №3.