The syllabus of the discipline

Network services programming

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Field name	Detailed content, comments
Name of the faculty	Faculty of Infocommunications
Level of higher education	Second (master's)
Code and name of the specialty	172 Telecommunications and radio engineering
Type and name of educational program	EPP "Information and Network Engineering"
Name of the discipline	Network services programming
Number of ECTS credits	5
Discipline structure (distribution by types andhours of study)	24 hours - 12 lectures, 16 hours - 4 laboratory classes, 16 hours - 8 consultations, 94 hours - home work, **type of control**: credit
Schedule (terms) of studying the discipline	1st year, I semester
Prerequisites for studyingthe discipline	Basic concepts of: information and communication technologies.
Competences, knowledge, skills, understanding, whichis acquired by the applicantin higher education in the learning process	Discipline is used to form the following competencies: be able to use the results in practice, including the ability to configure software for network equipment, as well as use software for programming network services. Have methods of programming network services.
The quality of the educational process	Educational-methodical and material-technical resource provision of the educational program, within the framework of which the discipline is studied, meets the licensing requirements and accreditation conditions of the educational activity of the university. Annual monitoring and revision of the curriculum of the discipline in accordance with the requirements and recommendations of the Ministry of Education and Science, state certification of acquired competencies of graduates, standards of cooperation with employers to ensure a competitive level of training. Adherence to the principles of academic integrity (http://lib.nure.ua/plagiat). Contains public information on the requirements, competencies, level of education within the current educational program.

Description and content of the discipline

The purpose of the discipline "Programming of network services" is to form the basic knowledge of specialists in network and telecommunications technologies; acquisition of skills in modern integrated programming systems for the implementation of network protocols.

Content

Content module 1

Topic 1. Introduction to programming network sockets

Topic 2. Introduction to RMI

Content module 2

Topic 3. JAVAEE technologies and architecture

Topic 4. Introduction to JSP technology

Learning outcomes of higher education

As a result of studying the discipline, students must:
- know: methods of configuring network equipment software and programming of network services;
- be able to: use the results obtained in practice, including the configuration of network equipment software, as well as use software for programming network services.
- have: methods of programming network services.

Assessment system according to each task for passing the test / exam

To evaluate the student's work during the semester, the final rating Q_{sem} is calculated as the sum of grades for different types of classes and grades for control activities.

Type of lesson / controlmeasure	Rating
Lb № 1, 2	(10…15)×2 = 20…30
Checkpoint 1	**20…30**
Lb № 3, 4	(10…15)×2 = 20…30
Test №1	10…40
Checkpoint 2	**30…70**
Total for the semester	60…100

The form of final control for the discipline is a test for full-time education.

When crediting the final grade is calculated by the formula: $P_{\text{п}} = O_{\text{сем}}$, where $O_{\text{сем}}$ - the grade for the semester in a 100-point system.

Qualitative evaluation criteria in the national scale and ECTS

Satisfactory, D, E (60-74). Show the required minimum of theoretical knowledge. Know the ways and methods of solving practical problems and be able to use them in practice.

Good, C (75-89). Firmly know a minimum of theoretical knowledge. Demonstrate the ability to solve a practical problem and justify all stages of the proposed solution.

Excellent, A, B (90-100). Show complete knowledge of basic and additional theoretical material. Unmistakably solve a practical problem, explain and justify the chosen method of solution.

Assessment scale: national and ECTS

The sum of points for all types of educational activities	ECTS assessment	Score on a national scale	
		for exam, course project (work), practice	for offset
90 – 100	**A**	perfectly	credited
82-89	**B**	fine	
74-81	**C**		
64-73	**D**	satisfactorily	
60-63	**E**		
35-59	**FX**	unsatisfactory with the possibility of reassembly	not credited with the possibility of re-assembly
0-34	**F**	unsatisfactory with mandatory re-examination	not credited with compulsory re-study of the discipline

Methodical support

Basic literature

1. Kovalenko O. C., Dobrovska L. M. Proektuvannia informatsiinykh system: Zahalni pytannia teorii proektuvannia IS (konspekt lektsii) Kyiv KPI im.Ihoria Sikorskoho 2020. - 192c.

2. KRYVUTsA V. H. Osnovy infokomunikatsii: navch. posibnyk dlia zahalnoosvit. navch. zakladiv: 11 y klas / Kryvutsa V. H., Berkman L. N., Lapinskyi V. V.; za red. V. H. Kryvutsy.— K.:DUIKT, 2011.— 276 s.

Supporting literature

3. Zhuravska I. M. Proektuvannia ta montazh lokalnykh kompiuternykh merezh: [navchalnyi posibnyk] / I. M. Zhuravska. – Mykolaiv : Vydavnytstvo ChDU im. Petra Mohyly, 2016. – 396 s.

Methodical instructions for different types of classes

1. Metodychni vkazivky do laboratornykh robit z dystsypliny „Prohramuvannia merezhnykh posluh".

Information support

1. Eclipse programming system.