

The syllabus of the discipline
SEO optimization

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Field name	Detailed content, comments
Name of the faculty	Faculty of Infocommunications
Level of higher education	First (bachelor'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	SEO optimization
Number of ECTS credits	4
Discipline structure (distribution by types and hours of study)	16 hours - 8 lectures, 4 hours - 2 practical classes, 12 hours - 3 laboratory classes, 8 hours - 4 consultations, 80 hours - homework, type of control: exam
Schedule (terms) of studying the discipline	4th year, VIII semester
Prerequisites for studying the discipline	Previously : Basics of web design; Information systems and Internet technologies; web-programming Know: typical web resource architectures; basic principles of HTML, CSS and JavaScript; principles of landing page construction; approaches to user interface design; methods of creating, improving and optimizing graphic objects; basics of typography in the web environment.
Competences, knowledge, skills, understanding, which is acquired by the applicant in higher education in the learning process	The discipline is used to form the following competencies: Knowledge of theories and methods of basic and general engineering sciences to the extent necessary to solve specialized problems and practical problems in the field of professional activity; PRN3. Ability to apply knowledge in the field of informatics and modern information technologies, computer and microprocessor technology and programming, software for solving specialized problems and practical problems in the field of professional activity; PRN4. Ability to participate in the creation of application software for elements (modules, blocks, nodes) of telecommunication systems, infocommunication, telecommunication networks, radio systems and television and radio broadcasting systems, etc .; PRN5. Ability to perform element calculations telecommunication systems, infocommunication and telecommunication networks, radio engineering systems and television and radio broadcasting systems, according to the technical task in accordance with international standards, using design automation means, incl. created independently; PRN8. Ability to apply modern achievements in the field of professional activity in order to build advanced telecommunications systems, infocommunications, telecommunications networks, radio engineering systems and television and radio broadcasting systems, etc.

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 (https://lib.nure.ua/plagiat). Contains public information on the requirements, competencies, level of education within the current educational program.
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Description and content of the discipline

The purpose of the discipline is to form a modern level of understanding of the principles of interaction of resources of the World Wide Web and search engines, students gain theoretical knowledge and practical skills of internal and external site optimization to raise its position in search engine results for certain user queries. resources) and potential customers (for commercial resources) and further monetization (revenue) of this traffic.

During the study of the discipline such tasks are consistently solved as: creating the semantic core of the site, analyzing the semantic features of competitors' sites, creating effective SEO-texts, researching traffic dynamics and behavioral characteristics of the target audience, planning and conducting complex tools that include building links site, attracting third-party resources and services.

Content

Content module 1. General issues of search engine optimization

Topic 1. Introduction to SEO

Topic 2. General analysis of the promoted resource and competitors' sites.

Detailed analysis of key issues.

Topic 3. Processing Formation of the semantic core

Content module 2. Internal optimization.

Topic 1. Basics of internal site optimization.

Topic 2. Webmaster tools and analytics systems.

Topic 3. Content management systems.

Content module 3. External optimization

Topic 1. Working with aggregators. External site optimization

Topic 2. Sanctions of search engines.

Learning outcomes of higher education

as a result of studying the discipline students must:

know: the basics of organic and marketing promotion of web resources on the World Wide Web; principles of working with tools for analyzing the content of sites

(content, structure and mass of links); basics of internal and external site optimization; conditions for ensuring the growth of search positions of the web resource;

be able to: provide effective processes for improving the site's search ranking, create and use analytical tools for site monitoring;

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

To assess the work of a student during the semester, the final rating score Q_{sem} is calculated as the sum of marks for different types of classes and control activities.

Type of lesson / control measure	Rating
Lb № 1, № 2	(12...20)x2 24...40
Pr № 1	12...20
Checkpoint 1	36...60
Lb № 3	12...20
Pr № 2	12...20
Checkpoint 2	24...40
Total for the semester	60...100

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.

Well, 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. Dzheison Berd. Veb-dyzain. Rukovodstvo razrabotchyka. — SPb.: Pyter, 2012.— 224 s.
2. Strykh, Yu Sovremennyi veb-dyzain. Эpokha Veb 3.0. 2-e yzd. -M.: 000 "Y.D. Vyliams», 2013. - 368 s.
3. Vellynh Tomson Razrabotka veb-prylozhenyi s pomoshchiu PHP y MySQL . - M.: 000 "Y.D. Vyliams», 2010. - 848 s.

Supporting literature

1. L. Hrokhovskyi, M. Slyvynskyi, A. Chekushyn, S. Stavskyi. SEO: rukovodstvo po vnutrennym faktoram. – M.: Tsentr yssledovanyi y obrazovanyia «TopEkspert», 2011. – 133 s.

Methodical instructions for different types of classes

1. Konspekt leksii z kursu «SEO-optymizatsiia» dlia studentiv usikh form navchannia napriamu 6.050903 – Telekomunikatsii ” –Kh.: KhNURE, 2018 Elektronnyi variant.
2. Metodychni vkazivky do samostiinoi roboty ta praktychnykh zaniat z dystsypliny «SEO-optymizatsiia» dlia studentiv usikh form navchannia napriamu 6.050903 – Telekomunikatsii Kh.: KhNURE, 2018 Elektronnyi variant.
3. Metodychni vkazivky do laboratornykh robit z dystsypliny «SEO- optymizatsiia» dlia studentiv usikh form navchannia napriamu 6.050903 – Telekomunikatsii Kh.: KhNURE, 2019 Elektronnyi variant.

Information support

- “Google Analytics”;
- “Google Ads”;
- “Google Tag Manager”;
- “SimilarWeb”;
- “Seolik”;