Syllabus
selective component of VC

Regional land use and protection schemes

Discipline name:	**Regional land use and protection schemes**
Level of higher education:	**First (undergraduate)**
Course page in Moodle:	*https://dl2022.khadi.kharkov.ua/course/view.php?id=2577*
The volume of the educational component	**4 credits (120 hours)**
Form of final control	**Test**
Consultations:	**on schedule**
Name of the department:	**Department of Road Design, Geodesy and Land Management**
Language of instruction:	**English**
Course leader:	**Lyudmila Mykhaylivna Kazachenko, Candidate of Technical Sciences, Associate Professor**
Contact phone number:	*+38 (057) 707-37-32*
E-mail:	*rp@khadi.kharkov.ua*

Brief content of the educational component:
The goal isthe formation of theoretical knowledge and practical skills for a comprehensive understanding of the general tasks of land management at the state level as a science and the possibility of using the scientific foundations of the discipline for drawing up land use planning schemes at the national level, developing target programs for the use and protection of land in practical activities in the field of geodesy, cartography and land management .
Subject: land protection direction in the creation of land management schemes of an administrative-territorial entity.
The main tasks of studying an academic discipline are:
study of land management documentation at the national level, in accordance with the development of appropriate measures for the rational use and protection of land in the territory of the administrative-territorial entity, in accordance with the developed programs of rational use and protection of land.

Prerequisites for studying the educational component:
Geodesy; Land management; Informatics; Ecology.

Competencies acquired by the acquirer:
***General competences*:**
Ability to learn and master modern knowledge.
Ability to apply knowledge in practical situations.
Special (professional) competences:
Ability to apply regulatory and legal acts, regulatory and technical documents, reference materials in professional activities.
The ability to choose and use effective methods, technologies and equipment for carrying out professional activities in the field of geodesy and land management.
Ability to monitor and evaluate land.

Learning outcomes:

Know and apply in professional activity regulatory and legal acts, regulatory and technical documents, reference materials in the field of geodesy and land management and related fields.

Develop land management schemes with technical and economic substantiation of land use and protection.

Thematic plan

Topic number	Title of topics (LK, LR, PR, SZ, SR)	Number of hours	
		Full-Time	Correspondence
1	2	3	4
Section 1. Subject and tasks of the discipline "Regional land use and protection schemes".			
1	LK. Subject and tasks of the course "Regional land use and protection schemes". Connection of the course with other disciplines.	2	1
	PR software Legislative framework in the field of land protection. Types of land use and protection schemes.	2	1
	SR. Study of topic materials 1. Legislative framework in the field of rational land use at the national level.	5	13
2	LK. Land management schemes for land use and protection.	2	–
	SR. Study of materials of topic 1. Legislative framework in the field of land protection.	4	–
3	LK State-wide targeted programs on land use and protection. Program developers, prerequisites for the development of such programs.	2	1
	PR software Prerequisites for drawing up state-wide target programs for land use and protection. Prerequisites for compiling programs. Study and analysis of materials for compiling programs. Program development.	2	1
	SR. Studying the materials of topic 2. Prerequisites for drawing up programs, approval, approval, implementation.	5	13
4	LC Goals and objectives of land use and planning programs at the national level. Questions solved by programs.	2	–
	SR. Study of the materials of topic 2. Technical task for the development of programs.	4	–
5	LK Developers, customers, prerequisites for the development of the master plan.	2	1
	PR. Prerequisites for the development of the General scheme for planning the use and protection of land on the territory of the state. Customers. Developers. Procedure for developing the General Scheme.	2	1
	SR. Study of materials of topic 3. Initial cartographic data and sources of initial information.	5	13
6	LK Developers, customers, prerequisites for the development of the master plan.	2	–
	SR. Study of the materials of topic 3. Predictive component of the general scheme	4	–
Chapter 2 Schemes of rational use and protection of land at the regional, local and local levels.			
7	LK Schemes of land management for rational use and protection of land.	2	1
	PR software Source data for drawing up the Land Management Scheme at the regional level. Source	2	1

	cartographic materials.		
	SR. Study of the materials of topic 4. Legislative framework regulating the issue of rational use and protection of land.	5	13
8	LK. The legislative framework regulating the issue of rational use and protection of land.	2	–
	SR. Study of materials of topic 4. Public cadastral map. GIS and databases of the State Land Cadastre of Ukraine.	2	–
9	LK Technical and economic justifications for rational use and protection of land at the local level.	2	1
	PZ Development of the land management scheme of the administrative district. Permission to draw up the Scheme. Procedure for development of land management documentation - Land management schemes. Initial data for development and the procedure for obtaining them.	2	–
	SR. Study of materials of topic 5. Administrative-territorial unit.	5	14
10	LK Schemes of land management of the administrative district.	2	–
	SR. Study of the materials of topic 5. Forecast periods in the land management scheme	4	–
11	LK Schemes of land management at the local and local level.	2	1
	PR software Compilation of tables, Calculations of technical and economic substantiation.	2	–
	SR. Study of materials of topic 6. Composition of documents included in the land management scheme.	5	14
12	LC The procedure for developing a land management scheme. Composition of documents included in the land management scheme	2	–
	SR. Study of the materials of topic 6. Compilation of basic and auxiliary drawings and cartograms of the Land Management Scheme at the local level.	4	–
Chapter 3. Development of a land management scheme at the local level. Environmental orientation of land use.			
13	LK. Schemes of land management of administrative-territorial entities. United territorial communities. Development procedure.	2	1
	PZ Development of the Land Management Scheme at the local level. Obtaining initial information. Compilation of tables, drawings. Use of GIS technologies.	2	–
	SR. Studying the materials of topic 7. The perspective of land use.	5	14
14	LK. Feasibility studies of the scheme. Calculations of economic indicators for the territory of OTG.	2	–
	SR. Studying the materials of topic 7. The perspective of land use based on GIS.	5	–
15	LK Environmental direction of land management schemes. Issues resolved by land management schemes at the local level.	2	1
	PZ Development of basic drawings and cartograms of the Land Management Scheme at the local level. Scheme of the united territorial community. The main planned land protection measures. Implementation of these measures.	2	–
	SR. Study of materials of topic 8. Land protection. Prospective land use, according to the scheme.	5	14
16	LK Calculation of the technical and economic justification of	2	–

	the rational use of land. Approval and implementation of planned activities.		
	SR. Land management scheme at the local level.	4	–
In just one semester **LK** **software** **SR**		 32 16 72	 8 4 108
ALL by discipline **LK** **software** **SR**		 32 16 72	 8 4 108

Teaching methods:
verbal (lecture, explanation, story, conversation, discussion, work with a book, etc.), visual (the method of illustrations and demonstrations), practical (practical tasks).

Grading system and requirements:

Current success
1 The current success of applicants for the performance of educational types of work in training sessions and for the performance of tasks of independent work is assessed using a four-point scale of grades, followed by recalculation into a 100-point scale. During the assessment of current performance, all types of work provided for by the curriculum are taken into account.
1.1 Lectures are evaluated by determining the quality of the specified tasks.
1.2 Practical classes are assessed by the quality of the control or individual task, the performance and design of practical work.
1.3 Laboratory classes are assessed by the quality of the implementation of reports on the performance of laboratory work.
1.4 Seminars are evaluated by the quality of the individual task / abstract.
2 Evaluation of the current performance of applicants for higher education is carried out at each practical lesson (laboratory or seminar) on a four-point scale ("5", "4", "C", "2") and recorded in the journal of accounting for academic performance.
– "excellent": the applicant perfectly mastered the theoretical material, demonstrates deep knowledge of the relevant topic or academic discipline, the main provisions;

– "good": the applicant has well mastered the theoretical material, owns the main aspects from primary sources and recommended literature, reasonably teaches it; has practical skills, expresses his reasoning about certain problems, but assumes certain inaccuracies and errors in the logic of presenting theoretical content or in the analysis of practical;

– "satisfactory": the applicant has mainly mastered the theoretical knowledge of an academic topic or discipline, is oriented in primary sources and recommended literature, but unconvincingly answers, confuses concepts, uncertainly answers additional questions, does not have stable knowledge; answering questions of a practical nature, reveals inaccuracies in knowledge, does not know how to evaluate facts and phenomena, connect them with a future profession;

– "unsatisfactory": the applicant has not mastered the educational material of the topic (discipline), does not know scientific facts, definitions, is almost not oriented in primary sources and recommended literature, there is no scientific thinking, practical skills are not formed.
3 The final score for current activities is recognized as the arithmetic average sum of points for each lesson, for individual work, current tests according to the formula:

$$K^{nomoч} = \frac{K1 + K2 + ... + Kn}{n},$$

where $K^{nomoч}$ – is the final assessment of success based on the results of current control;

$K1, K2, ..., Kn$ – assessment of the success of the measure of current control;

n – the number of measures of current control.

Scores are converted to points according to the recalculation scale (Table 1).

Table 1 – Recalculation of the average score for current activities into a multi-point scale

4-point Scale	100-point Scale	4-point Scale	100-point Scale	4-point Scale	100-point Scale	4-point Scale	100-point Scale
5	100	4,45	89	3,90	78	3,35	67
4,95	99	4,4	88	3,85	77	3,3	66
4,9	98	4,35	87	3,80	76	3,25	65
4,85	97	4,3	86	3,75	75	3,2	64
4,8	96	4,25	85	3,7	74	3,15	63
4,75	95	4,20	84	3,65	73	3,1	62
4,7	94	4,15	83	3,60	72	3,05	61
4,65	93	4,10	82	3,55	71	3	60
4,6	92	4,05	81	3,5	70	from 1,78 to 2,99	from 35 to 59
						Reassembly	
4,55	91	4,00	80	3,45	69	from 0 to 1,77	from 0 to 34
4,5	90	3,95	79	3,4	68	Re-study	

Final assessment

1 The applicant for higher education receives credit at the last lesson in he discipline based on the results of the current assessment. The average score for current activities is converted into points on a 100-point scale, according to the recalculation table (Table 1).

Applicants for higher education who have an average current grade in a discipline lower than "3" (60 points) in the last lesson can increase their current score by passing tests in the discipline.

Assessment of knowledge of applicants by testing is carried out on a scale:

– "Excellent": at least 90% of correct answers;
– "Very good": from 82% to 89% of correct answers;
– "Good": from 74% to 81% of correct answers;
– "Satisfactory": from 67% to 73% of correct answers;
– "Satisfactory enough": from 60% to 66% of correct answers;
– "Unsatisfactory": less than 60% of correct answers.

2 The condition for obtaining the test is:

– working out all missed classes;
– the average current score in the discipline is not lower than "3" (60 points).

3 For the implementation of individual independent work and participation in scientific events, applicants are awarded additional points.

3.1 Additional points are added to the sum of points scored by the higher education student for current academic activities (for disciplines for which the test is the final form of control), or to the final grade in the discipline for which the exam is the final form of control.

3.2 The number of additional points awarded for different types of individual tasks depends on their volume and significance:

– prizes in the discipline at the international / all-Ukrainian competition of scientific student works – 20 points;

– prizes in the discipline at the All-Ukrainian Olympiads – 20 points;

– participation in the international / all-Ukrainian competition of scientific student works – 15 points

– participation in international / all-Ukrainian scientific conferences of students and young scientists – 12 points;

– participation in all-Ukrainian olympiads in the discipline – 10 points

– participation in olympiads and scientific conferences of KhNADU in the discipline – 5 points;

– implementation of individual research (educational and research) tasks of increased complexity – 5 points**.**

3.3 The number of additional points may not exceed 20 points.

4 The result of training is evaluated *(choose the right one)*:

– on a two-point scale (credited/not credited) according to table 2;

– on a 100-point scale (for differentiated standings) according to Table 3.

The final score, together with additional points, cannot exceed 100 points.

Table 2 – Scale of transfer of points to the national grading system

On a 100-point scale	**On a national scale**
from 60 points to 100 points	enrolled
less than 60 points	unaccounted for

Table 3 – Scale of assessment of applicants' knowledge based on the results of the final control in the discipline

Score in points	National scale score		ECTS score	
	Exam	Passed	Score	Criteria
90-100	**Perfectly**	**Enrolled**	**A**	The theoretical content of the course is mastered entirely, without gaps, the necessary practical skills of working with the mastered material are formed, all the training tasks provided by the training program have been completed, the quality of their implementation is estimated by the number of points close to the maximum

80–89	**Well**	**Enrolled**	**B**	The theoretical content of the course is mastered entirely, without gaps, the necessary practical skills in working with the mastered material are mainly formed, all the training tasks provided by the training program have been completed, the quality of most of them is estimated by the number of points close to the maximum
75-79			**C**	The theoretical content of the course is mastered entirely, without gaps, some practical skills of working with the mastered material are not sufficiently formed, all the training tasks provided by the training program have been completed, the quality of none of them is assessed by the minimum number of points, some types of tasks are performed with errors
67-74	**Satisfactory**		**D**	The theoretical content of the course is partially mastered, but the gaps are not significant, the necessary practical skills in working with the mastered material are mainly formed, most of the training tasks provided by the training program have been completed, some of the tasks performed may contain errors
60–66			**E**	The theoretical content of the course is partially mastered, some practical skills of work are not formed, many of the training tasks provided by the training program have not been completed, or the quality of some of them is estimated by the number of points close to the minimum.
35–59	**Disappointing**	**Not credited**	**FX**	The theoretical content of the course is partially mastered, the necessary practical skills of work are not formed, most of the provided training programs have not been completed, or the quality of their implementation is estimated by the number of points close to the minimum; with additional independent work on the course material, it is possible to improve the quality of the training tasks (with the possibility of re-compilation)
0–34	**Unacceptable**		**F**	The theoretical content of the course has not been mastered, the necessary practical skills of work are not formed, all completed training tasks contain gross errors, additional independent work on the course material will not lead to any significant improvement in the quality of the training tasks (with a mandatory repeated course)

Course Policy:
– the course involves teamwork, the environment in the audience is friendly, creative, open to constructive criticism;
– mastering the discipline involves the obligatory attendance of lectures and practical classes, as well as independent work;
– independent work involves the study of individual topics of the discipline, which are made in accordance with the program for independent study, or were considered briefly;
– all tasks envisaged by the program must be completed within the prescribed period;
– if the applicant for higher education is absent from the classroom for a good reason, he presents the completed tasks during the independent preparation and consultation of the teacher;
– while studying the course, applicants for higher education must comply with the rules of academic integrity set forth in the following documents: "Rules of academic integrity of participants in the educational process of KhNADU" (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_dobroch_1.pdf), "Academic integrity. Verification of the text of academic, scientific and qualification works for plagiarism" (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_85_1_01.pdf), "Moral and ethical code of participants in the educational process of KhNADU (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_MEK_1.pdf).
– in case of detection of the fact of plagiarism, the applicant receives 0 points for the task and must re-complete the tasks provided for in the syllabus;
– write-offs during tests and exams are prohibited (including using mobile devices). Mobile devices are only allowed to be used during online testing.

Recommended Books:

1. Land Code of Ukraine dated October 25, 2001 No. 2768-III with amendments and additions // Web source: Official. website Verkhov. Council of Ukraine [Electronic resource]. Access mode: http://zakon4.rada.gov.ua/-laws/show/2768-14.

2. "About land management". Law of Ukraine dated 05/22/2003 No. 858-IV with amendments and additions // Web source: Official. website Verkhov. Councils of Ukraine [Electronic resource]: Access mode: http://zakon.rada.gov.ua/¬laws/show/858-15.

3. "On the State Land Cadastre" Law of Ukraine // Web source: Official. website Verkhov. Council of Ukraine [Electronic resource]. Access mode: http://zakon4.rada.gov.ua/¬laws/show/2768-14.

4. Land Code of Ukraine // Web source: Official. website Verkhov. Council of Ukraine [Electronic resource]. Access mode: http://zakon4.rada.gov.ua/-laws/show/2768-14.

5. Kazachenko L.M., Kozar V.I., Lashko S.P., Galchenko N.P. Modeling of the geospatial database of vibration monitoring in populated areas. Communal management of cities: Scientific and technical collection. [Series: Technical sciences]. Kharkiv: XNUMG, 2021. Volume 4. Issue 164. P. 104-110.

6. Bogira M.S. Land management design: theoretical foundations and territorial land management: training. manual / M. S. Bogira, V. I. Yarmolyuk; under the editorship Ph.D. M.S. Gods K.: Agrarian education, 2011. 416 p.

7. Kazachenko L.M., Kazachenko D.A. Regional schemes of land use and protection/ study guide Kh.: V.V. Dokuchaev KhNAU 2014. 248 p.

8. Kazachenko L.M. Land surveying and design: teaching method. manual Kharkiv: FOP Panov A.M., 2018. 156 p.

9. Kazachenko L.M. GIS technologies for the creation of a planning and geodetic basis for the development of general plans of settlements / Kazachenko L.M., Kazachenko

V.A., Chubukin R.Yu. //Modern achievements of geodetic science and production Collection of scientific works /Lviv Lviv Polytechnic, 2021 Issue II (42) p.68-79.

10. Kazachenko L.M., Land management of degraded and landslide lands of settlements / Kazachenko L.M., Kazachenko D.A // Problems of land management sciences. LNAU journal No. 3. Lviv, 2018. P. 25-32.

11. Kazachenko L.M. Kazachenko V.A. Planning the use of renewable territories. Theory and practice: monograph. Kharkiv: HNADU. 2020. 318 p.

12. Kazachenko L.M. Methodical instructions for practical classes and independent work in the discipline "Regional schemes of land use and protection" specialty 193 "Geodesy and land management" / E.V. Dorozhko, A.H. Batrakova, L.M. Kazachenko, Nalivayko T.A. Kharkiv: Khnadu, 2021. 26 p.

Additional sources:

1. distance course:
https://dl2022.khadi.kharkov.ua/course/view.php?id=2577

2. Public cadastral map of Ukraine: [Electronic resource]. – Access mode: http://map.land.gov.ua/kadastrova-karta

3.http://files.khadi.kharkov.ua

4.http://www.nbwv.gov.ua

5.http://korolenko.kharkov.com

Developer (developers)
syllabus of the discipline _____ Lyudmila KAZACHENKO

Head of the Department _____ Evgen DOROZHKO