

Syllabus
selective educational component

Life Safety

Subject title:	Life Safety
Level of higher education:	first (undergraduate)
Course page in Moodle :	https://dl2022.khadi-kh.com/course/view.php?id=478
The scope of the educational component	3 credits (90 hours)
Final control form	credit test
Consultations:	by schedule
Name of the department:	Department of metrology and life safety
Teaching language:	Ukrainian
Course leader:	Hraivoronska Inna Valeriievna, PhD, associate professor
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Brief content of the educational component:

The goal is for the student to acquire competence, knowledge, abilities and skills to carry out professional activities in the specialty, taking into account the risk of man-made accidents and natural hazards that can cause emergency situations and lead to adverse consequences at economic facilities, as well as the formation of students' responsibility for personal and collective safety.

Subject: general laws of occurrence and development of hazards, emergency situations, their properties, possible impact on human life and health, and formation of skills and abilities necessary in the future practical activity of a specialist for their elimination and prevention, protection of people and the environment.

The main tasks of studying the academic discipline are: application of knowledge, abilities and skills to solve professional tasks with mandatory consideration of industry requirements for ensuring the safety of personnel and protection of the population in dangerous and emergency situations and formation of motivation for strengthening personal responsibility for ensuring a guaranteed level of safety of the functioning of objects of the industry, material and cultural values within scientifically based criteria of acceptable risk.

Prerequisites for studying the educational component:

"Labour protection", "Civil protection".

Competencies acquired by the acquirer:

The ability to realize one's rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.

The ability to preserve and increase the moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, machinery and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle.

Ability to apply knowledge in practical situations.

Ability to use freely special terminology to solve professional tasks.

Ability to provide advice on compliance with the norms of literary language and speech culture.

Learning outcomes according to the educational program:

To understand the fundamental principles of being a person, nature, society.

To cooperate with colleagues, representatives of other cultures and religions, adherents of different political views, etc.

To use the languages studied, in oral and written form, in different genre-stylistic varieties and registers of communication (official, unofficial, neutral), to solve communicative tasks in everyday, social, educational, professional, scientific spheres of life.

Thematic plan

Topic No	Title of topics (LC – lecture classes, LC – laboratory classes, PC – practical classes, IT – individual task, SS – self-study)	Number of hours	
		intramural	extramural
1	LC1. Theoretical foundations of the discipline "Life safety"	2	
	PC1. Provision of emergency assistance in traffic accidents	2	
	SS1. Rules of conduct in the event of an accident	7	
2	LC2. Characteristics of hazards. Risk	2	
	PC2. Calculation of risks. The influence of the environment on human health	2	
	SS2. Calculation of statistical risk	7	
3	LC3. A person as an element of a system: "a person and a living environment"	2	
	PC3. Providing pre-medical care	2	
	SS3. Resuscitation measures	7	
4	LC4. Dangerous and harmful environmental factors	2	
	PC4. Psychophysiological properties of a person. Human temperament: typology, diagnosis	2	
	SS4. The course of human neuropsychological processes. Stress	7	
5	LC5. Life safety in emergency situations. Natural disasters and rules of behavior in the event of natural emergencies	2	
	PC5. Determination of human biological rhythms	2	
	SS5. Seasonal biorhythms	7	
6	LC6. Emergency situations of man-made, socio-political and military nature. Combined hazards	2	
	PC6. Methods of studying the properties of attention	2	
	SS6. Tests to determine the properties of attention	7	
7	LC7. Social dangers: alcoholism, smoking, drug addiction. Social diseases: prevalence, manifestations, prevention	2	
	PC7. Human safety when working with computers	2	
	SS7. Radiation sources	8	

8	LC8. Legal foundations of the discipline "Life safety"	2	
	PC8. Human nutrition	2	
	SS8. Daily human needs	8	
Total	LC	16	
	PC	16	
	SS	58	

Individual educational and research task: not provided

Teaching methods:

- 1) verbal: 1.1 traditional: lectures, explanations, stories, etc.;
- 1.2 interactive (non-traditional): problem lectures, discussions, etc.;
- 2) visual: method of illustrations, method of demonstrations
- 3) practical: 3.1 traditional: practical classes, seminars;
- 3.2 interactive (non-traditional): business and role-playing games, trainings, seminars-discussions, "round table", brainstorming method, case studies.

Evaluation system and requirements:

Everyday performance

1 The everyday of students for the performance of educational types of work in training sessions and for the performance of independent work tasks is evaluated using a four-point rating scale with subsequent transfer to a 100-point scale. During the evaluation of the everyday academic performance, all types of work provided for by the educational program are taken into account .

1.1 Lecture classes are evaluated by determining the quality of performance of specified tasks.

1.2 Practical classes are evaluated by the quality of performance of a control task or an individual task, performance and design of practical work.

1.3 Laboratory classes are evaluated by the quality of reports on the performance of laboratory work.

1.4 Seminar classes are evaluated by the quality of individual assignment/abstract.

2 The current performance of higher education applicants is assessed at each practical session (laboratory or seminar) on a four-point scale ("5", "4", "3", "2") and entered in the journal of academic performance.

– "excellent": the student has mastered the theoretical material flawlessly, demonstrates deep knowledge of the relevant topic or academic discipline, the main provisions;

- "good": the student has mastered the theoretical material well, knows the main aspects from primary sources and recommended literature, presents it in a reasoned manner; has practical skills, expresses his/her thoughts on certain problems, but certain inaccuracies and errors are assumed in the logic of the presentation of theoretical content or in the analysis of practical ones;

- "satisfactory": the student has basically mastered the theoretical knowledge of the educational topic or discipline, orients him/herself in primary sources and recommended literature, but answers unconvincingly, confuses concepts, answers additional questions uncertainly, does not have stable knowledge; when answering questions of a practical nature, reveals inaccuracy in knowledge, does not know how to evaluate facts and phenomena, connect them with the future profession;

– "unsatisfactory": the student has not mastered the educational material of the topic (discipline), does not know scientific facts, definitions, hardly orients himself in primary sources and recommended literature, lacks scientific thinking, practical skills are not formed.

3 The final score for the current activity is determined as the arithmetic mean sum of points for each lesson, for individual work, current test works according to the formula:

$$K^{nomou} = \frac{K1 + K2 + \dots + Kn}{n},$$

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

$K1, K2, \dots, Kn$ is evaluation of the success of the n^{th} current control measure;

n is the number of measures of current control.

Assessments are converted into points according to the conversion scale (table 1).

Table 1 – Recalculation of the average grade for the current activity 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
						retaking the exam	
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	retaking the course	

Final assessment

1 A student of higher education passes a credit test at the last lesson in the discipline based on the results of the current assessment. The average score for the current activity is converted into points on a 100-point scale, according to the conversion table (table 1).

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

Assessment of the knowledge of applicants through testing is carried out according to the following 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 passing credit test is:

- making up for all missed classes;
- the average current grade in the discipline is not lower than "3" (60 points).

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

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

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;
- prize places 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 the KhNAHU in the discipline - 5 points;
- performance of individual scientific and research (educational and research) tasks of increased complexity - 5 points .

3.3 The number of additional points cannot exceed 20 points.

4 The learning result is evaluated (*select the required*) :

- on a two-point scale (passed/ failed) according to table 2

The final grade together with additional points cannot exceed 100 points.

Table 2 – Scale for transferring points to the national evaluation system

On a 100-point scale	On a national scale
from 60 points to 100 points	passed
less than 60 points	not passed

Course policy:

- the course involves working in a team, the environment in the classroom is friendly, creative, open to constructive criticism;
- mastering the discipline involves mandatory attendance of lectures and practical classes, as well as independent work;
- independent work involves the study of individual topics of the academic discipline, which are presented in accordance with the program for independent study, or were considered briefly;
- all tasks provided by the program must be completed within the set time;
- if the student of higher education is absent from classes for a good reason, he/she presents the completed tasks during independent preparation and consultation of the teacher;
- while studying the course, students of 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 the KhNAHU" (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_dobroch_1.pd_f), "Academic integrity. Checking the text of academic, scientific and qualification papers 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 the KhNAHU" (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_MEK_1.pdf).

- in case of detection of plagiarism, the applicant receives 0 points for the task and must repeat the tasks provided for in the syllabus ;
- writing off during tests and exams is prohibited (including using mobile devices). Mobile devices are allowed to be used only during online testing.

Recommended Books:

1. Пістун І. П. Безпека життєдіяльності. Навчальний посібник. Суми: «Університетська книга», 2000. 302 с.
2. Безпека життєдіяльності: Навчальний посібник / за ред. Цапка В. Г. К.: Знання-Прес, 2003. 397 с.
3. Скобло Ю. С., Соколовська Т. Б., Мазоренко Д. І. та ін. Безпека життєдіяльності. Київ, 2003. 424 с.
4. Желібо Є. П., Заверуха Н. М., Зацарний В. В. Безпека життєдіяльності. 2003. 328 с.
5. Пістун І. П., Кіт Ю. В. Безпека життєдіяльності (Психофізіологічні аспекти). Практичні заняття. Навчальний посібник. Львів, «Афіша», 2000. 239 с.

Additional sources:

1. дистанційний курс: <https://dl2022.khadi-kh.com/course/view.php?id=478>
2. <http://files.khadi.kharkov.ua/ /mekhanichnij-fakultet/metrologiji-ta-bezpeki-zhittediyalnosti/itemlist/category/510-navchalni-mb.html>
3. <http://files.khadi.kharkov.ua/mekhanichnij-fakultet/metrologiji-ta-bezpeki-zhittediyalnosti/item/9640-praktikum-bgd.html>

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