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**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN
FEDERATION**
Federal State Autonomous Educational Institution of Higher Education
NORTH-CAUCASUS FEDERAL UNIVERSITY

APPROVED BY

Assoc. Prof. Kubanov S.I.

PhD in Medical Sciences

Dean Faculty of Medicine and Biology

ASSESSMENT TOOLS FUND FOR THE DISCIPLINE

LIFE SAFETY

Field of Study	31.05.01 General Medicine
Year Commenced	2026
Type of Training:	Full-time
Delivered in Semester	1

Preface

1. **Aim:** For checking the level of development of competencies in the Life Safety discipline.
2. **Status:** The Assessment Tools Fund (ATF) is an appendix to the syllabus of the Life Safety discipline.
3. **Developers:** Instructors of the Department of Life Safety and Military Training Basics.
4. **Evaluation:** An expert review of the Assessment Tools Fund (ATF) has been conducted.

Expert Group Members:

Chairperson: Kubanov S.I., Associate Professor of the Department of Surgery, Orthopedics, and Traumatology.

Committee Members:

Ivchenko G.S., Acting Head of the Department of Internal Medicine Propaedeutics

Kotelevets S.M., Professor of the Department of Internal Medicine Propaedeutics.

Employer organization representative: Vilensky I.L., Chief Physician of Independent CDL, LLC

Expert conclusion – the ATF allows evaluating the level of competency levels and is recommended to be employed in the educational process.

5. Validity Period: The validity period for the Assessment Tools Fund (ATF) shall be determined by the implementation period of the educational program.

1. Description of Competency Assessment Criteria at Various Stages, and Evaluation Scales

Competency(ies), Indicator(s)	Level of competencies			
	Minimum Level Not Achieved (Unsatisfactory) – 2 points	Minimum Level (Satisfactory) – 3 points	Intermediate Level (Good) – 4 points	High Level (Excellent) – 5 points
Competency: UC-8 – Can create and maintain safe living conditions in daily life and in professional activities to preserve the natural environment, ensure society’s sustainable progress, including in the event of threats, emergencies, and military conflicts.				
LEARNING OUTCOMES Indicator: AI-1 UC-8. Familiar with the general characteristics of ensuring safety and sustainable development in various spheres of life; classification of military emergencies, principles and methods of organizing the protection of the population from dangers arising in peacetime and during military operations.	Identifies hazardous and harmful occupational factors. Identifies with errors the probability of peacetime and wartime hazards occurring. Does not conceptualize peacetime and wartime hazard scenarios. Does not perform typification of natural disasters, major industrial accidents, and catastrophes, and does not evaluate damaging factors. Predicts with shortcomings the consequences of peacetime and wartime hazard impacts on humans and the environment.	Identifies hazardous and harmful occupational factors. Analyzes hazard scenarios with errors. Performs typification of natural disasters, major industrial accidents, and catastrophes with shortcomings, and does not evaluate damaging factors. Predicts consequences of hazard impacts on humans and the environment with minor flaws.	Identifies hazardous and harmful occupational factors. Evaluates the probability of hazards occurring. Analyzes hazard scenarios with errors. Performs typification of natural disasters, major industrial accidents, and catastrophes, but does not evaluate damaging factors. Predicts consequences of hazard impacts on humans and the environment.	Identifies hazardous and harmful occupational factors. Evaluates the probability of hazards occurring. Analyzes hazard scenarios. Performs typification of natural disasters, major industrial accidents, and catastrophes, and evaluates damaging factors. Predicts consequences of hazard impacts on humans and the environment.
Learning outcomes in the discipline: Indicator: AI-2 UC-8. Evaluates the probability of potential danger in wartime, everyday life, and professional activities and takes measures for its prevention.	Poorly conceptualizes the means and methods of protection against hazards of various origins. Does not envision methods and means of protecting personnel and the population from major industrial accidents and catastrophes, emergency	To a certain extent conceptualizes the means and methods of protection against hazards of various origins. Envisions with minor flaws the methods and means of protecting personnel and the population from major industrial accidents and catastrophes,	Conceptualizes methods of protection against hazards of various origins and performs numerical assessment of protective measures. Envisions methods and means of protecting personnel and the population from	Conceptualizes methods of protection against hazards of various origins and performs numerical assessment of protective measures. Envisions methods and means of protecting personnel and the population from

Competency(ies), Indicator(s)	Level of competencies			
	Minimum Level Not Achieved (Unsatisfactory) – 2 points	Minimum Level (Satisfactory) – 3 points	Intermediate Level (Good) – 4 points	High Level (Excellent) – 5 points
	situations, and military conflicts. Does not perform first aid measures for victims.	emergency situations, and military conflicts. Performs first aid measures for victims with errors.	major industrial accidents and catastrophes, emergency situations, and military conflicts. Performs first aid measures for victims with shortcomings.	major industrial accidents and catastrophes, emergency situations, and military conflicts. Performs first-aid (pre-medical) measures for victims.
Learning outcomes in the discipline: Indicator: AI-3 UC-8. Applies basic protection methods during threats, emergencies, and military conflicts in daily life and professional activities.	Does not conceptualize requirements for ensuring safe life conditions. Does not state or apply legal and regulatory documents on labor protection, environmental protection, safety in emergency situations, and military conflicts in everyday life and professional activities.	Conceptualizes with errors the requirements for ensuring safe life conditions. States and applies with minor flaws legal and regulatory documents on labor protection, environmental protection, safety in emergency situations, and military conflicts in everyday life and professional activities.	Conceptualizes requirements for ensuring safe life conditions. States and applies legal and regulatory documents on labor protection, environmental protection, safety in emergency situations, and military conflicts in everyday life and professional activities.	Conceptualizes requirements for ensuring safe life conditions. States and applies legal and regulatory documents on labor protection, environmental protection, safety in emergency situations, and military conflicts in everyday life and professional activities.

Interim assessment is carried out as an exam (electronic testing).

2. ASSESSMENT TOOLS FUND FOR CHECKING THE COMPETENCY LEVEL

Task #	Question Content & Correct Answer	Competency
Test items		
1	An accident not associated with the release of highly active toxic substances or with their minor leakage is a...: +: local accident -: municipal accident -: facility-level accident -: regional accident	UC-8
2	Life Safety studies: -: safety in the domestic sphere -: safety in the urban sphere -: safety in the occupational sphere +: safety in all listed spheres	UC-8
3	If water catches up with you in a field during a flood, you will:	UC-8

Task #	Question Content & Correct Answer	Competency
	-: stay in place and wait for help -: attempt to run away from the oncoming flow at a 45° angle to it -: attempt to run away from the oncoming flow at a 90° angle to it +: make your way to high ground	
4	The wailing of sirens and intermittent horns of enterprises mean the signal: +: Attention everyone! -: Air raid alert! -: Air raid all-clear -: Radiation hazard!	UC-8
5	The integral indicator of life safety is: -: protection from the impact of hazardous and harmful factors of the occupational environment -: protection from all types of hazards +: life expectancy -: compliance with industrial sanitation	UC-8
6	The sources of anthropogenic hazards are elements of the: -: biosphere -: hydrosphere -: decay of elementary particles +: technosphere	UC-8
7	Primary fire extinguishing equipment includes: -: indoor fire hydrants, fire extinguishers, sand, blankets, felt mats, shovels and scoops, axes and fire hooks, asbestos blankets -: water, sand, inert gases, foam -: air-mechanical foam, table salt, sodium chloride +: chemical, foam, gas, and carbon dioxide fire extinguishers, sand	UC-8
8	Natural emergency situations include: -: storms, hurricanes, crash of aircraft with nuclear power units on board, release of highly active toxic substances into the atmosphere -: ice jams on rivers, landslides, mudflows, glacier retreats, collisions of ships at sea +: earthquakes, volcanic eruptions, floods, mudflows, landslides, hurricanes, tornadoes, storms, wildfires -: tsunamis, whirlwinds, explosions in residential buildings, aviation catastrophes, snow avalanches	UC-8
9	Hazardous natural disasters, phenomena, or processes that have an extraordinary character and lead to the disruption of the daily life of large groups of people, human casualties, and the destruction and devastation of material assets, are called emergency situations of ... origin: -: geological -: cosmic -: natural +: social	UC-8
10	The outer shell of the Earth is...: +: biosphere -: hydrosphere -: atmosphere -: lithosphere	UC-8
11	The goal of Life Safety is...:	UC-8

Task #	Question Content & Correct Answer	Competency
	-: to form a person's awareness and responsibility regarding personal safety and the safety of others +: to protect humans from hazards at work and beyond -: to teach a person to provide self-help and mutual assistance -: to teach how to promptly eliminate the consequences of emergencies	
12	Safety is...: +: a state of activity in which the manifestation of hazard is excluded with a certain probability -: a multifaceted process of human creation of conditions for their existence and development -: a complex biological process that occurs in the human body and allows for the preservation of health and work capacity -: the central concept of Life Safety, which unites phenomena, processes, and objects capable under certain conditions of causing harm to human health	UC-8
13	Anthropogenic hazards include: -: flood +: large-scale industrial accidents -: air pollution -: natural disasters	UC-8
14	In terms of the duration of negative consequences, hazards can be: -: mixed +: impulsive -: anthropogenic -: ecological	UC-8
15	How many axioms are there in the science of Life Safety: -: 10 -: 5 +: 7 -: 4	UC-8
16	A hurricane belongs to hazards in the: -: lithosphere +: atmosphere -: biosphere -: hydrosphere	UC-8
17	Working conditions, their classification. Organization of a special assessment of working conditions. Severity and intensity of labor. Name the phenomenon for which penetrating radiation is an important damaging factor: -: volcanic eruption -: accident on an icebreaker operating on fuel from petroleum products -: accident on a nuclear-powered vessel where the power unit remained undamaged +: accident at a nuclear power plant accompanied by the destruction of the power unit	UC-8
18	An event of a technological (man-made) nature with tragic consequences, leading to the loss of human life, is called: -: accident +: catastrophe -: extreme situation -: emergency situation	UC-8
19	Physical, chemical, biological, and social hazards are called ... of hazards:	UC-8

Task #	Question Content & Correct Answer	Competency
	-: subjects -: objects +: types -: sources	
20	Factors that lead, under certain conditions, to traumatic injuries or sharp deteriorations in human health are called: -: intensive +: harmful -: hazardous -: risky	UC-8
21	A potential hazard is defined as the possibility of exposure of a person to ... factors: +: unfavorable or incompatible with life -: occupational -: personal -: social	UC-8
22	The main way to achieve safety is: -: eliminating hazards in the human-environment system -: eliminating potential hazards in the human-occupational environment system +: increasing public awareness -: prevention of violations	UC-8
23	Risk can be: -: industrial, agricultural, natural +: social, industrial, natural -: legal, ethnic, exploratory -: national, military, domestic	UC-8
24	The technosphere characterizes: -: natural disasters +: the operation of the industrial-manufacturing complex -: the work of medical and educational institutions -: the work of cultural and educational institutions	UC-8
25	The natural sphere characterizes: -: transport operations -: operation of communication systems +: natural disaster phenomena -: the operation of the industrial-manufacturing complex	UC-8
26	A threat is...: +: a hazard at the stage of transition from possibility to reality, an expressed intention or demonstration of readiness of some subjects to cause damage to others -: a possible danger of failure of actions undertaken, or the actions themselves associated with such danger -: a state of protection of the individual, society, and state from external and internal hazards and threats -: an unexpressed intention of some subjects to cause damage to others	UC-8
27	How many approaches are distinguished for defining risk: -: 9 +: 4 -: 2 -: 5	UC-8

Task #	Question Content & Correct Answer	Competency
28	The negative impact of emergencies on groups of people is called ... risk: +: social -: individual -: ecological -: technological	UC-8
29	Food security is...: +: the ability of domestic producers to provide the country's population with food in terms of volume and calorie content corresponding to minimum medical standards -: the guarding of food warehouses by the civilian population -: the guarding of food warehouses during emergency situations -: the ability of the country's population to consume the food basket	UC-8
30	How many points of the compass are on a compass: -: 1 -: 2 -: 3 +: 4	UC-8
31	Safety is...: +: a state of protection of the individual, society, and state from external and internal hazards and threats -: a multifaceted process of human creation of conditions for their existence and development -: a complex biological process that occurs in the human body and allows for the preservation of health and work capacity -: the central concept of Life Safety, which unites phenomena, processes, and objects capable under certain conditions of causing harm to human health	UC-8
32	An approach to defining risk that relies on statistics, calculation of hours, probabilistic safety analysis, and construction of forecasts of possible hazards is called: -: sociological +: engineering -: model-based -: expert	UC-8
33	An approach to defining risk that is determined on the basis of a survey of experienced specialists is called: -: sociological -: engineering -: model-based +: expert	UC-8
34	By origin, hazards can be: +: anthropogenic -: impulsive -: cumulative -: mixed	UC-8
35	Environmental safety is...: -: a set of measures to protect the interests of the country and society in the social sphere -: a state of protection of the information environment of society, ensuring its formation and development in the interests of citizens, organizations, and the state +: ensuring a stable and optimal, over long periods of time, balance between natural and anthropogenic ecosystems, the technosphere, and the population	UC-8

Task #	Question Content & Correct Answer	Competency
	-: creating conditions for the normal development of society, protecting cultural heritage, historical traditions, and norms of public life	
36	Safety, which is determined by the state of protection of the quantitative and ethnic composition of the country's population from external and internal threats, is called: -: social +: demographic -: economic -: information	UC-8
37	An emergency situation is...: +: a state in which, as a result of the occurrence of a source of emergency in a certain territory, life conditions of people are disrupted, a threat to their life and health arises, and damage is caused to the property of the population, the national economy, and the natural environment -: a state in which, as a result of the occurrence of a certain hazard, damage is caused to the property of the population and the national economy -: a state in which, as a result of the occurrence of a source of emergency at a facility, certain territory, or water area, accidents and catastrophes occur, disrupting life conditions of people, causing damage to the property of the population, and the natural environment -: a state in which, as a result of the occurrence of a certain hazard, damage is caused to the natural environment	UC-8
38	The scale of which of the following emergencies is the largest: -: municipal +: interregional -: intermunicipal -: local	UC-8
39	An emergency, the damaging factors of which do not extend beyond the territory of one constituent entity of the Russian Federation, is called: +: regional emergency -: municipal emergency -: intermunicipal emergency -: local	UC-8
40	By the rate of spread, emergency situations are classified as: +: explosive -: transboundary -: sudden -: global	UC-8
41	A suddenly occurring disaster caused by the forces of nature or human activity, accompanied by the death and mass injury of people, is a...: -: natural disaster -: ecological catastrophe -: accident +: catastrophe	UC-8
42	An accident is...: -: an extraordinary event of particularly large scale caused by the impact of anthropogenic factors +: a sudden stoppage of work or disruption of the production process in transport and various industrial facilities, occurring due to design, technological, manufacturing, operational reasons, or accidental external influences	UC-8

Task #	Question Content & Correct Answer	Competency
	-: natural phenomena of geographical, geological, hydrological, atmospheric, biospheric, and other origin -: an extraordinary event of particularly large scale caused by the impact of natural factors	
43	Natural emergency situations are subdivided into the following types: -: geological, biological, cosmic, and wildfires +: geological, meteorological, hydrological, cosmic, and wildfires -: geological, meteorological, geophysical, and building collapse -: meteorological, cosmic, geophysical	UC-8
44	A freshet/flood leads to: -: poisoning of pastures -: breach of dams -: loss of livestock +: contamination of groundwater	UC-8
45	If a hurricane or tornado catches you at home, you need to: -: move to the leeward side -: take shelter far away from windows and mirrors -: go down into the basement and close it well behind you +: all of the above	UC-8
46	If you are in a house and a hurricane, storm, or tornado suddenly starts, what must you do: -: open the window +: step away from the windows, stay at home, hide in a safe place -: pack your things and go outside -: hide in a closet	UC-8
47	A hazardous chemical substance (AHOV) is...: +: a hazardous chemical substance used in industry and agriculture, the accidental release of which may cause environmental pollution and injury to people -: penetration of hazardous substances through the respiratory organs and skin into the human body -: radiant energy flux -: dispersion of harmful substances in the atmosphere	UC-8
48	Is the following statement true: technological (man-made) emergency situations are those associated with the activities of a human operating mechanisms, machines, structures, and technical devices: -: sometimes -: episodically +: true -: untrue	UC-8
49	A device where a controlled fission reaction of uranium nuclei is carried out, resulting in the kinetic energy of the fission products being converted into thermal energy, is a...: +: nuclear reactor -: generator -: turbine -: engine	UC-8
50	The main type of regulatory legal acts of environmental protection is... +: the system of state standards in the field of nature conservation (SSOP) -: a set of legislative and regulatory acts in the field of nature conservation	UC-8

Task #	Question Content & Correct Answer	Competency
	-: the system of state standards in the field of labor safety in nature -: the system of state standards in the field of safety in natural emergency situations	

Learning outcomes for the Life Safety discipline, correlated with the UC-8 competency indicators, are evaluated on a five-point grading scale: Excellent, Good, Satisfactory, and Unsatisfactory.

The assessment of the competency level is to be carried out on the basis of the Regulations for ongoing monitoring of academic performance and interim assessment of students in educational programs of higher education - Bachelor's programs, Specialist's programs, Master's programs - at the Federal State Autonomous Educational Institution of Higher Education 'North-Caucasus Federal University' as currently amended.

3. COMPETENCY EVALUATION CRITERIA

COMPETENCY EVALUATION CRITERIA FOR TEST ITEMS

- **The EXCELLENT Grade** is to be awarded to a student who has completed 88–100% of all proposed test items of various types correctly, and who independently and consistently navigates the test items.
- **The GOOD Grade** is to be awarded to a student if they have completed 87–72% of the proposed test items correctly and navigate the test items.
- **The SATISFACTORY Grade** is to be awarded to a student if they have completed 53–71% of the proposed test items correctly and demonstrate fragmented navigation of the items.
- **The UNSATISFACTORY Grade** is to be awarded to a student if they have completed less than 52% of the proposed test items and show poor navigation of the items.

COMPETENCY EVALUATION CRITERIA FOR INTERVIEWS

- **The EXCELLENT Grade** is to be awarded to a student if their answer demonstrates full command of the conceptual apparatus, logical thinking, ability to answer questions freely, back up their answer with knowledge from related disciplines, and provide a detailed answer to the question asked. The competency development is at a high level.
- **The GOOD Grade** is to be awarded to a student if they possess basic knowledge, can argue their answer, demonstrate independent activity while answering, and make errors in formulated terms. The competency development is at a basic level.

- **The SATISFACTORY Grade** is to be awarded to a student if they have fragmented knowledge of the studied discipline, do not demonstrate independent activity when answering, and make errors in formulated terms. On the whole, skills are formed but not systematized. Competency development is at a satisfactory level.
- **The UNSATISFACTORY Grade** is to be to a student if the main conceptual apparatus has not been mastered, they operate with inaccurate formulations, select inappropriate examples to disclose the topic, and navigate poorly in the main questions of the interview. Competency development is weak.