

Syllabus for “Personal and Social Safety” course

1. Course Description

- a. **Title of a Course** «Personal and Social Safety»
- b. **Pre-requisites** For the development of the discipline students must have basic knowledge in physics, mathematics, ecology and psychology
- c. **Course Type:** compulsory
- d. **Abstract** The course is designed for the 3rd year students of specialization «Informatics and computer engineering» studying Life Safety in 1,2 module, the total number of hours -108.

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2. Learning Objectives

The aim of mastering the discipline «Personal and Social Safety» is getting by students the knowledge of safe (comfortable) interaction of a human being with its habitat, forming of students the understanding of the indissoluble unity of the effective professional activity with security requirements. As the life safety tasks are of global nature , the formation of safe culture of students is much necessary. The integration of scientific knowledge of various branches of science is required for all- inclusive addressing of safety matters. The life safety questions must be considered within all stages of industrial object life cycle from resource choosing and project to utilization, paying special attention to emergencies.

3. Learning Outcomes

As a result of developing the discipline a student must:

Know

- Structure and basic regularities of safe interaction human being- habitat;
- Principles of definition of allowable meanings of negative factors for a man;
- Methods and devices for measuring of normed values;
- Rights and duties of a master (engineer) in labor protection at industrial enterprises;

Be able to:

- Put into practice the basics of life safety;
- Identify traumatic factors in the home and in the workplace
- Estimate the influence of factors at a man and environment , consider possible negative consequences of human activity
- Analyze various parameters of the production environment and measures to increase safety of production activity
- Plan measures to protect population and staff in emergencies

Have the skills

- To search necessary information in library catalogs and internet
- To work with literature data and analyze the sources, highlight the problem of publication, formulate the aim, object and subject of authors investigation, give his own evaluation of reading
- To identify harmful and dangerous factors in the environment
- To operate devises, registering state of the environment
- To study the examples of design working space according to demands of life safety and ecology
- Rescue organization in emergency situation
- Estimate the accordance between measured and normed parameters

3. Course Plan

Section title	Whole number	Classroom hours			Self-work
		lections	workshops	Practical training	

		of hours				
1	Typical systemes «human-habitat ». Hazard classification during human activities and their characteristics	8	2			6
2	Lafe safety in production	31	2		4	25
3	Industrial sanitary. Industrial radiations. Basic parameters of microclimate in industrial rooms. Industrial room lighting. Industrial noises and vibrations.	38	6		7	25
4	Basics of fire safety	21	3		4	14
5	Life safety in emergencies	10	2			8
	Total	108	15		15	78

4. Reading List

a. Required

1. S.V. Belov Bezopasnost' zhiznedeyatel'nosti i zashchita okruzhayushchey sredy. Tekhnosfernaya bezopasnost'. Uchebnik- M.:Yurayt,2014-702 s.
- 2.Min'ko V.M. Okhrana truda v mashinostroenii. – M.: Akademiya, 2010.
- Belov S.V. i dr. Bezopasnost' zhiznedeyatel'nosti. Uch-k. – M.: Vysshaya shkola, 2009.
- 2.Vishnyakov Ya.D. i dr. Bezopasnost' zhiznedeyatel'nosti. Zashchita naseleniya i territoriy v chrezvychnykh situatsiyakh: uchebnoe posobie dlya vuzov. – M.: Akademiya, 2008.
- 3.Efremova O.S. Trebovaniya okhrany truda pri rabote na personal'nykh elektronno-vychislitel'nykh mashinakh (PK). – M.: Al'fa-Press, 2008.
4. Devisilov V.A. Okhrana truda: Uch-k: V.A.Devisilov. . – M.: Forum; INFRA-M, 2009.

b. Optional

- 1.Bashkin V.A. Ekologicheskie riski: raschet, upravlenie, strakhovanie: uchebnoe posobie / V.N. Bashkin – M.: Vysshaya shkola, 2007. – 360 s.
- 2.Mikhylo,v L.A., Gubanov V.M., Solomin V.P. Bezopasnost' zhiznedeyatel'nosti: uchebnik dlya studentov VUZOV.M.: Izd-vo Akademiya.2009, s.272.
3. Mikhaylov E. B., Guzenkova A. S. Otsenka bezopasnosti i tyazhesti truda na rabochem meste. M.: MIEM, 2011.
4. <http://www.who.int/en/>
5. <http://www.mchs.gov.ru/>
6. <http://www.un.org/>
7. <http://www.iso.org/iso/home.html>

5. Grading System

<u>mid-term studies</u> (10 points max.)	<u>Contribution, %</u>
<u>Attending lectures</u>	<u>30</u>
<u>Reports on practical courses</u>	<u>40 (4 practical x10)</u>
<u>Test</u>	<u>30</u>
<u>Total</u>	<u>100</u>

Guidelines for Knowledge Assessment

The final control is carried out on finishing the second module. The control consists in counting the final quantity of the accumulated points (lectures + practical+test), and points for the exam. The final amount of points is calculated by the formula:

$$O_{final} = 0,4 \cdot O_{accum} + 0,6 \cdot O_{exam}$$

6. Methods of Instruction

Lectures, tutorials, practical courses and self-study. The following workshops (laboratory works) are provided in the course: 1.The estimating of safety and severity of labor at the workplace. 2.The electrical safety. Calculating and control of the protective ground ,calculating and choose the automatic shut-off in protective earth and neutral, control of the quality of electric isolation 3.The work rooms lighting 4. Protection from industrial noises

7. Special Equipment and Software Support (if required)

Powerpoint presentations, internet, necessary equipment according to laboratory works themes