Name of subject	**Life safety(ECTS 4)**
Subject/module code	XFX1704
Science taught semester (s).	7th semester
Responsible teacher	Bobomurodov Zokir Abduqahhorovish PhD associate professor.
Education language	Uzbek
Connection to the curriculum	Compulsory
Training hours (this including independent education)	**Total hours-120.** **Audience Training hours - 48.** Lecture training hour – 24 Laboratory training hour – 12 Practical training hour – 12 **Independent education -72 hours**
ECTS	4
The purpose and tasks of subject / learning outcomes	**The purpose of teaching the subject** The purpose of the course is to teach future specialists the causes, characteristics, consequences of hazards that arise in their life activities, the rules for their elimination, the creation of safe working conditions, the protection of the population from natural, man-made, ecological and other emergencies, their theoretical and practical protection, and the rules for providing primary medical care to injured persons. To achieve this goal, the subject performs the tasks of forming students' theoretical knowledge, practical skills, a methodological approach to phenomena and processes, and a scientific worldview, the types of emergencies that may occur during their activities, methods for analyzing their causes and consequences, and the skills of using means of preserving and rescuing people and material assets in emergencies that may occur during their activities. **The task of science**- is to theoretically and practically prepare people to ensure safety in production and in emergencies, to create good working conditions, and to teach and educate them on how to act in extreme situations. **Learning outcomes:** 1 Labor rights in the organization of production activities and their study 2 Creating safe working conditions in production processes: 3 Creating safe working conditions in production processes: 4 Taking fire safety measures 5 Understanding industrial sanitation and occupational hygiene:
Course content (topics)	**I. Main Theoretical Part (Lecture Sessions)** Topic 1. Fundamentals of life safety. Ensuring life safety. The concept of life safety. Basic concepts and terms of life safety. Components of life safety and their objects of verification. Theoretical foundations of life safety. Topic 2. Protection of the population and territories in emergencies of a technogenic nature. Analysis of activity safety. Basic concepts of life safety, their content. Hazards, their classification. Principles and methods of ensuring activity safety. The human factor in the “man - environment” system Topic 3. Safety problems in video terminals. The first electronic calculating machine (EXM) was created at the University of Pennsylvania at the end of World War II; it was created at the expense of the US military court and was intended to calculate the flight trajectory of artillery shells. Topic 4. Labor protection laws and organizational foundations. Certification of workplaces.

In production, each workplace is assigned a specific task. Otherwise, this workplace may become: overloaded, underloaded, or completely redundant.

In our country, women are guaranteed equal rights with men. This right is rightly emphasized in the Labor Law.

Topic 5. Protection of the population and territories in the event of accidents at radiation (nuclear) hazardous facilities with the release of radioactive substances into the environment.

Radioactive substances are used for various purposes in a number of scientific research institutions and industrial enterprises.

Topic 6. Protection of the population and territories in the event of accidents at chemically hazardous facilities with the release (spill) of environmentally hazardous chemicals.

Evacuation of the population and first aid in the event of accidents at chemically hazardous facilities with the release (spill) of environmentally hazardous chemicals.

Topic 7. Protection of the population and territories in natural emergencies.

Evacuation of the population and first aid in natural emergencies.

Topic 8. Basic requirements for ventilation devices at industrial enterprises.

The ventilation system is a complex engineering device. Each element of it performs a specific function. Therefore, before putting the ventilation system into operation, it is subjected to technical and sanitary-hygienic tests.

Topic 9. Protection of the population and territories in technogenic fires.

Evacuation of the population and first aid in the protection of the population and territories in technogenic fires.

Topic 10. Protection of the population and territories in the event of earthquakes, floods and natural fires.

Evacuation of the population and first aid in the event of protection of the population and territories in the event of earthquakes, floods and natural fires.

Topic 11. Protection of the population and territories in emergencies of a biological, social and military nature.

Topic 12. Psychological resilience in emergency situations and methods of its formation. Ensuring security in society.

II. Instructions and recommendations for organizing laboratory exercises.

In laboratory exercises, students develop practical skills and competencies in various indicators of processes in electrical networks and systems, conducting experiments, calculating and drawing tables and graphs. The recommended topics are selected based on opportunities and conditions.

Recommended topics for laboratory work:

1. Study of equipment safety and laboratory work.
2. Determination of microclimatic conditions in industrial enterprises and institutions.
3. Determination of the concentration of harmful substances.
4. Determination of natural lighting in production and enterprises.
5. Determination of noise and vibrations in industrial enterprises.
6. Determination of the combustion temperature of materials.

III. Practical training instructions and recommendations

The teacher's preparation for a practical training session begins with the study of preliminary documents (curriculum, thematic plan, etc.) and ends with the development of a lesson plan. The teacher should have an idea of the goals and objectives of the practical training session, the

amount of work that each student must perform.

Methodological guidelines are the main methodological document of the teacher in preparing and conducting practical training sessions.

The purpose of the practical training session is to understand the theory, acquire skills. It is to consciously apply it in educational and professional activities, and to develop the ability to confidently form one's own point of view.

The following topics are recommended for practical training:

1. Legal basis of labor protection. Analysis of accidents and occupational diseases in organizations.
2. Study of the microclimate of industrial buildings. Study of natural and artificial lighting in production.
3. Fundamentals of safety. Calculation of noise and vibrations in production
4. Electrical safety. Evacuation.
5. Personal protective equipment.
6. Fire safety. First aid..

IV. Independent learning and independent work.

Independent learning competence serves to support students' independent self-development and increase the effectiveness of professional activities. Students perform independent work on their mobile devices under the guidance of a teacher in a traditional or electronic form.

Recommended topics for independent study:

1. Scientists of the world and our country who have made a significant contribution to the study of HFX problems. Their main scientific and practical works.
2. Analysis of numerical, point and other methods of quantifying risks.
3. Analysis of the principles and methods of ensuring safety.
4. Analysis of safety conditions at different stages of activity.
5. Analysis of ergonomic indicators of ensuring safety of activity.
6. Requirements for organizing the workplace.
7. The influence of human anthropometric indicators on the safety of activity.
8. The importance of psychological factors in ensuring the safety of activity.
9. The system of laws and regulatory documents adopted in the Republic of Uzbekistan in the field of ensuring the safety of life and activity.
10. Compilation of a glossary on the science of life and activity safety.
11. The importance of physiological and psychological characteristics of a person in ensuring safety.
12. The importance of human anatomy (anthropometric parameters) in ensuring safety.
13. Analysis of international experience and research on ensuring the safety of life activities.
14. Analysis of laws and regulatory documents adopted in foreign countries on ensuring the safety of life activities.
15. Grouping and structure of technical means of protection against noise and vibration.
16. System of regulatory documents containing technical safety requirements for machines and mechanisms.
17. State Fire Safety Service.
18. Analysis of static data on the occurrence of fires and the damage caused by them in the republic.
19. Modern technical means of fire protection.

	20. International terrorism and terrorist organizations.
Exam form	Written
Teaching/learning and examination requirements	Complete mastery of theoretical and methodological concepts and practical knowledge of the discipline, the ability to correctly reflect the results of analysis, independently reason about the processes being studied and carry out tasks in the current, intermediate forms of control and independent work, pass written work on the final control. When drawing up final exam questions, deviations from the content of the discipline program are not allowed. The bank of final exam questions for each discipline is discussed at the meeting and approved by the head of the department. No later than 1 week before the start of the final control, tickets signed by the head of the department, enclosed in an envelope, are sealed by the Dean's office and opened 5 minutes before the start of the exam in the presence of students. Final exam duration is 80 minutes. Answers to final exam questions are recorded in copybooks with the seal of the Dean's office. After completion of the final work, the work is immediately encrypted by a representative of the Dean's office, and the copybooks are handed over to the commission for verification. From the moment of completion of the final exam, a period of 72 hours is allotted for checking and posting the results on the electronic platform. The teacher who taught the students in this discipline is not involved in the process of conducting the exam and checking the students' answers. Student(s) who are dissatisfied with the final exam results may submit a written or oral appeal within 24 hours of the publication of the final exam results. Complaints submitted after 24 hours from the publication of the final exam results will not be accepted.
Scope of assessment criteria and procedure	CURRENT CONTROL Purpose: Determining and assessing the student's level of knowledge, practical skills, and competencies on course topics. Instructions: The student's activity in daily classes is assessed through the student's mastery of course topics, as well as constructively interpreting and analyzing the educational material, developing module-specific skills, acquiring practical skills (in terms of quality and the specified number) and competencies, solving problem situations aimed at applying professional practical skills, working in a team, preparing presentations, etc. Current control form: Activity in lessons Preparing educational materials Working with sources within the subject Using educational technologies Working in a team Preparing presentations Working with projects. MIDTERM CONTROL Purpose: Assessing the student's knowledge and practical skills and level of mastery of lecture material after completing the relevant section of the course. Form and procedure of intermediate control: Midterm examination is held during the semester during the training sessions after the completion of the relevant module of the curriculum of the subject. Midterm examination is held once in written form within the framework of this subject. Midterm examination questions cover all topics of the subject. INDEPENDENT LEARNING Purpose: Independent learning is aimed at fully covering the content of this course, expanding the theoretical knowledge acquired, and establishing independent learning activities for students. Form and procedure of independent education: independent work assignments are completed in the form of an educational project,

presentation, case study, problem solving, information search, digest, colloquium, essay, article, abstract, etc. Completed assignments for independent study are placed in the electronic system and checked based on the anti-plagiarism program and evaluated by the subject teacher.

In this case, the uniqueness of the completed assignment should not be less than 60%, otherwise the assignment will not be accepted for assessment. The number of independent work assignments, depending on the nature of the subject, should not be less than 3 for one subject (module). Independent work assignments account for 60% of the points allocated for current and intermediate control.

FINAL CONTROL

Purpose: The final examination is held at the end of the semester to determine the level of mastery of the student's theoretical knowledge and practical skills in the relevant subject. The final examination is held at a specified time according to the examination schedule created by the Registrar's Office on the electronic platform.

Requirements: The student must have passed the current control, intermediate control and independent learning assignments by the deadline for the final control type in the relevant subject. A student who has not passed the current control, intermediate control and independent learning assignments, as well as who has received a score in the range of "0-29.9" for these assignments and control types, is not included in the final control type. Also, a student who has missed 25 percent or more of the classroom hours allocated to a subject without a reason is excluded from this subject and is not included in the final control type and is considered not to have mastered the relevant credits in this subject. A student who has not passed or was not included in the final control type and has received a score in the range of "0-29.9" for this type of control is considered to be an academic debtor.

Final control form: The final examination in this subject will be conducted in written form. If the final examination is conducted in written form, the requirements for assessment must also be reflected.

Criteria for assessing student knowledge

5 grade	100 points		Assessment criteria
5	90-100	Excellent	When a student is considered to be able to make independent conclusions and decisions, think creatively, observe independently, apply the knowledge he has gained in practice, understand, know, express, and narrate the essence of the subject, and have an idea about the subject.
4	70-89,9	Good	When the student is considered to be able to observe independently, apply the knowledge he has gained in practice, understand, know, express, and narrate the essence of the subject, and has an idea about the subject.
3	60-69,9	Satisfactory	When the student is found to be able to apply the knowledge he has gained in practice, understands, knows, can express, and narrate the essence of the subject, and has an idea about the subject.
2	0-59,9	Unsatisfactory	When it is determined that the student has not mastered the science program, does not understand the essence of the subject, and does not have an idea about the science.

Course assessment criteria and procedure

Assessment type	Total points allocated	Control (task) form	Distribution of points	Qualifying score
Current assessment	30 points	System tasks	20 points (divided by the number of tasks)	18 points
		Student activity (in seminars, practical, laboratory classes)	10 points	
Midterm assessment	20 points	Supervision: Written work	10 points	12 points
		System tasks	10 points (divided by the number of tasks)	
Final assessment	50 points	Written assignment (5 questions)	50 points (10 points per question)	30 points

* Note: 60% of the points allocated for current and intermediate control are allocated to independent work assignments. Independent work assignments are evaluated as system assignments through the electronic platform.

Recommended Literature

Main literature:

1.A. Mark, P. Friend James Fundamentals of Occupational Safety and Health. Bernan Press. Germaniya, 2007

2.A.Qudratov,T G‘aniyev, O‘Yo’ldoshev, F.Y.Yormatov,N.Xabibullayev “Hayot faoliyati xavfsizligi”,Toshkent ”Aloqachi” 2005 y.

3. H.E. G‘oyipov "Mehnat muhofazasi" T.: "Mehnat" 2003 y

4. G‘. Yormatov, Yo. Isamuxamedov "Mehnatni muhofaza qilish" T.: "O’zbekiston" 2002 y

5. X. Rahimova, A. A’zamov, T. Tursunov "Mehnatni muhofaza qilish" T.: "O‘zbekiston" 2003 y

6. O‘.Yo‘ldoshev, U. Usmonov, O.Qudratov "Mehnatni muhofaza qilish" T.: "Mexnat" 2001 y

7. A. A’zamov, T. Tursunov va boshqalar "Mehnatni muhofaza qilish" T.: "Sano-standart" 2013 y

8. A. Qudratov, T. G‘aniyev va boshqalar "Hayot faoliyati xavfsizligi" T.: "Aloqachi" 2005 y

9. A. Qudratov, T. G’aniyev "Hayot faoliyati xavfsizligi" T.: "Mehnat" 2004 y

10. H.X.Razzoqov, Sh.A.Mamasov "Hayot faoliyati xavfsizligi" Toshkent 2019 y

11. G‘.Yormatov, O‘.Yo‘ldoshev, A.Hamrayev "Hayot faoliyati xavfsizligi" Toshkent 2009 y

12.A.Norboyev, O.Qulto‘rayev, Avliyoqulov, M.Ziyoyeva “Hayot faoliyati xavfsizligi” Toshkent ”Iqtisod-Moliya” 2017

Additional literature:

13.Mirziyoyev Sh.M. Tanqidiy tahlil, qat’iy tartib-intizom va shaxsiy javobgarlik – har bir rahbar faoliyatining kundalik qoidasi bo‘lishi kerak. O‘zbekiston Respublikasi Vazirlar Mahkamasining 2016-yil yakunlari va 2017-yil istiqbollariga bag‘ishlangan majlisidagi O‘zbekiston Respublikasi Prezidentining nutqi. // Xalq so‘zi gazetasi. 2017-yil 16 yanvar, №11.

14.O‘zbekiston Respublikasi Konstitutsiyasi – T.: O‘zbekiston, 2014. –

46 b.
15.“Mehnatni muhofaza qilish to‘g‘risida”gi (yangi tahriri) O‘zbekiston Respublikasi Qonuni. 2016 yil 22 sentyabr.
16.Ishlab chiqarishdagi baxtsiz hodisalarni va xodimlar salomatligining boshqa xil zararlanishini tekshirish va hisobga olish to‘g‘risidagi Nizom. Vazirlar Mahkamasining qarori № 286, 06.06.1997, –T.: 1997.
17.“Ishlab chiqarishdagi baxtsiz hodisalar va kasb kasalliklaridan majburiy davlat ijtimoiy sug‘urtasi to‘g‘risida”gi qonun. O‘zbekiston Respublikasi qonun hujjatlari to‘plami, 2008 , 37-38-son.

Internet resources:

18.www.gov.uz – O’zbekiston Respublikasi xukumat portali.
19.www.lex.uz – O’zbekiston Respublikasi Qonun hujjatlari ma’lumotlari milliy bazasi.
20.www.mintrud.uz – Mehnat va aholini ijtimoiy muhofaza qilish vazirligi sayti.
21.www.bilim.uz – OUMTV sayti