Instrument Engineering (INEN) program, "Industrial safety and labour protection" department

Course Unit Title	Civil Defense
Course Unit Code	VTSS-B21
Type of Course Unit	Compulsory
Level of Course Unit	2nd year INEN program
National Credits	0
Number of ECTS Credits Allocated	5
Theoretical (hour/week)	1 (overall 15 hours)
Practice (hour/week)	1 (overall 15 hours)
Laboratory (hour/week)	0
Year of Study	2
Semester when the course unit is delivered	4
Course Coordinator	Reyhankhanim Ganiyeva
Name of Lecturer (s)	Reyhankhanim Ganiyeva
Mode of Delivery	Face to Face, Seminar.
Language of Instruction	English
Prerequisites	-
Recommended Optional Program Components	-

Course description:

Civil Defense is a system of measures implemented by state authorities, legal entities and individuals to ensure the safety of all people, land, water and air space, industrial and social facilities and the environment in the territory of the Republic of Azerbaijan during peaceful life and war.

Objectives of the Course:

The purpose of this course is to teach students the following main provisions:

1. Take preventive measures to avoid the emergence situations;
2. Maximum reduction of losses and damages that may increase during emergencies;
3. Elimination of emergencies and their consequences.

The Law of the Republic of Azerbaijan on Civil Defence provides the legal basis and principles of civil defense. The President of the Azerbaijan Republic is responsible for the general management of civil defence in the Republic of Azerbaijan. State-wide civil defence activities are carried out by the state, the government, the economic and military authorities, with the participation of the entire population. The civil defence system involves ministries, associations, departments, enterprises, organisations, educational and sports facilities belonging to different forms of ownership, together with all their subordinate labour and technical means.

Learning Outcomes

At the end of the course the student will be able to		Assessment
1	To obtain an understanding about emergencies, their types and legislation	1,2,3
2	To learn the basics of safety measures during emergency situations	1
3	To learn about the planning for the civil defence of the object, the content of the annual action plan, the structure and requirements of civil defence plans,	1,2,3
4	To understand the organisation of emergency readiness of the population, rules and planning for emergency readiness of command and control authorities and forces	1
5	To gain an appreciation of methods of organising practical command post exercises and drills. Methods of organising practical facility training, facility object-frame training, integrated facility training.	1
6	To understand the rescue and other emergency operations at sources of damage	1,2,3

Assessment Methods: 1. Final Exam, 2. Presentation, 3.Midterm exam

Course's Contribution to Program

		CL
1	Ability to solve complex issues and tasks by using the principles of mathematics, physics, chemistry and chemical engineering.	3
2	Ability to execute, coordinate, implement, substantiate laboratory processes while carrying out the experiments and to obtain and extract chemical compounds using standard methods and syntheses.	3
3	Ability to use the basics of mathematics, algorithmic principles and methods of computer engineering in the modeling, to design of chemical engineering systems, analyze and interpret data using statistical methods.	3
4	Ability to use the techniques, materials, skills and modern engineering tools which are used in engineering and to carry out industrial and chemical processes, control them and to apply chemical engineering principles at designing of these processes.	4

5	Ability to choose and use existing technologies, materials while undertaking project tasks and solving these issues in chemical engineering and ability to eliminate malfunctions that may occur in industrial and chemical processes or in laboratory equipment.	3
6	Ability to design systems, components, units and processes that meet the requirements, taking into account natural limitations such as economics, ecology, security and social aspects.	4
7	Ability to use the language skills to exchange and obtain some knowledge gained from the foreign sources.	1
8	Ability to analyze the problem, to identify the basic requirements, to justify the idea and critically evaluate the results and to compare them.	3
9	Ability to understand professional, ethical, legal and security issues and the responsibilities characteristic for engineering.	5
10	Ability to work productively in multidisciplinary groups, especially in projects requiring engineering skills and to carry out all work in accordance with relevant laws, regulations, standards, methods and guidelines.	3

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5: Very High)

Course Contents

Week	Chapter	Topics	Exam
1	[1] Chapter1	The basics, forces and means on civil defence. Emergencies and their classification. Emergencies of natural origin**.**	
3	[2] Chapter4	Emergencies and their classification. Emergencies of natural origin **Seminar 1**. The basics, forces and means on civil defence	
5	[1] Chapter3	Emergency situations of military nature (Nuclear weapon and its destructive factors). Chemical weapons. Toxic and high toxic subctances. **Seminar 2.** Emergencies and their classification. Emergencies of natural and anthropogenic origin	
7	[1] Chapter8	Bacteriological weapon and measures in bacteriological situation. Conventional means of destruction and protection from them **Seminar 3.** Chemical and bacteriological weapons. System of measurements in chemical and bacteriological situation, rules of behavior.	Midterm
9	[1] Chapter11	Assessment of the situation during emergencies. Tasks, conduct and organization of Civil Defence intelligence. **Seminar 4.** Conventional means of destruction and protection from them	
11	[1] Chapter12	Equipment of chemical and dosimetric intelligence Basic principles and methods of population protection in emergencies. Notification of population in emergencies, emergency signals**.** **Seminar 5.** Assessment of the situation during emergencies. Tasks, conduct and organization of Civil Defence intelligence	
13	[1] Chapter12	Protective devices of civil defence. Evacuation of population in emergencies. Individual means of protection. **Seminar 6.** Evacuation of population in emergencies. Collective and individual means of protection	
15	[1] Chapter6	Fundamentals of stability of industrial facilities in case of emergencies and ways to improve them. **Seminar 7.** Fundamentals of stability of industrial facilities in case of emergencies and ways to improve them	
Total			

Recommended Sources

1. Law of Azerbaijan Republic on Civil Defence. https://m.mia.gov.az/index.php?/en/content/29094/
2. Fire protection and fire fighting equipment on board https://nauticalebook.files.wordpress.com/2018/02/unit345-fire1.pdf

Assessment

Attendance	0%	At least 75% class attendance is compulsory

Presentation	20%	
Seminars	10%	
Midterm Exam	20%	Written Exam
Final Exam	50%	Written Exam
Total	100%	

Assessment Criteria
Final grades are determined according to the Guidelines of Azerbaijan State University of Oil and Industry for Undergraduate Studies

Course Policies

- Attendance of the course is mandatory.
- Late assignments will not be accepted unless an agreement is reached with the lecturer.
- Cheating and plagiarism will not be tolerated. Cheating will be penalized according to the Azerbaijan State Oil and Industrial University General Student Discipline Regulations

ECTS allocated based on Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including midterm)	**15**	**3**	**42**
Presentation	1	10	10
Self-study	14	4	56
Tutorials	14	1	14
Preparation for midterm exam	1	8	8
Final Examination	1	3	3
Preparation for final exam	1	18	18
Total Workload			**151**
Total Workload/30(h)			**151/30**
ECTS Credit of the Course			**5**