

Islamic Republic of Iran
Ministry of Health and Education
Secretariat of the Supreme
Council for Medical Science Planning

Curriculum for Non-Continuous Master's
Program in Health in Disasters and
Emergencies
(General Program Specifications, Course
Syllabi, and Evaluation Methods)

Chapter One

Curriculum for Non- Continuous Master's Program in Health in Disasters and Emergencies

Introduction:

The Islamic Republic of Iran, due to its geographical and climatic characteristics, as well as its geopolitical and socio-economic conditions, is considered as one of the most disaster-prone and vulnerable countries. Each year, approximately 3,000 to 4,000 people lose their lives due to disasters, with thousands more injured or displaced.

Disasters create a great demand for humanitarian assistance, particularly in health care, where immediate medical services are crucial right after a disaster and must be sustained for several months. In addition to providing health services during these events, it is essential to implement various preventive measures and enhance the preparedness of healthcare facilities prior to disasters. The successful execution of these strategies requires specialized knowledge and skills, which continue to pose challenges despite advancements in disaster health management.

Currently, the Ministry of Health and other organizations are confronting a significant shortage of professionals, most of whom possess only practical experience in this field. Therefore, there exists a considerable gap in the skilled workforce needed for effective disaster health management.

The increasing prevalence of disaster risks and their associated health consequences, coupled with a lack of specialized human resources for efficient health management at the national level, highlights the urgent need to establish a "Master's Degree in Health in Disasters and Emergencies" program in medical universities across the country. This need is further supported by international documents and extensive scientific evidence advocating for the training and education of professionals in this domain. To address this issue, members of the Board of Examination and Evaluation for Health in Disasters and Emergencies have conducted a needs assessment and emphasized the necessity of establishing the program since 2013. Following this assessment, several meetings have been held to discuss the quality and design of the program. Educational programs at universities worldwide were reviewed, and the draft of the current program was prepared and finalized by the Board of Examination and Evaluation for Health in Disasters and Emergencies. Once approved, this program will equip individuals with necessary skills to prevent and mitigate the impact of disasters, improve preparedness for disasters, ensure effective disaster response, and conduct comprehensive evaluations of health services at the family, community, regional, and organizational levels.

Health in Disasters and Emergencies (MSc)

Program Definition:

The non-continuous master's program in "Health in Disasters and Emergencies" is an interdisciplinary program that merges various health sciences with comprehensive theoretical and practical training based on disaster risk management policies. The program focuses on the preservation and enhancement of public health aiming to equip dedicated and specialized professionals with the skills necessary to effectively manage the phases of prevention, damage reduction, preparedness, response, and recovery during disasters and emergencies.

Admission Requirements:

- Candidates must pass the entrance exam in accordance with the regulations set by the Ministry of Health, Treatment, and Medical Education.
- Applicants should hold a bachelor's degree in relevant fields, such as public health, environmental health engineering, occupational health engineering and safety, nutrition sciences, nursing, operating room technology, pre-hospital emergency medical services, laboratory sciences, health services management, midwifery, anesthesiology, health information technology, biology, or vector control (including medical entomology and vector management).
- Graduates with a general doctorate in medicine, dentistry, or pharmacy, as well as individuals holding a professional doctorate in veterinary medicine.

Exam Materials and Coefficients:

Candidates are encouraged to review the master's entrance exam booklet for medical sciences for the current academic year to remain informed of any updates regarding acceptable academic credentials, as well as information regarding exam materials and their respective coefficients.

History and Evolution of the Program in the World and Iran:

Disasters, whether natural or man-made, have always been a part of human life on Earth. Different viewpoints on disasters have emerged globally and continue to evolve. As our understanding of these issues has changed and various scientific disciplines have developed, man has recognized that many of these risks can be anticipated and mitigated. For risks whose timing and location

cannot be predicted, it is still possible to eliminate the factors and conditions that contribute to vulnerability and lessen their impact.

While there is no exact record of when scientific methodologies for disaster prevention and management were first introduced, it is officially acknowledged that the first doctoral dissertation on disasters was completed at Columbia University in 1917. Significant efforts in disaster education and research did not begin until after World War II. Between 1949 and 1954, a research center was established at Ohio University to examine human behavior during disasters, along with a committee that explored the social, psychological, and medical dimensions of such events. Over time, disaster research centers were established at Ohio University and later at the University of Delaware. The U.S. Centers for Disease Control and Prevention (CDC) focused on disasters in 1973, coinciding with the establishment of the "Center for Research on the Epidemiology of Disasters (CRED)". In 1976, the World Association for Disaster and Emergency Medicine was founded. The initiative for the "European Master's Degree in Health in Emergencies" was launched at the inaugural European Society for Disaster Medicine Conference in 1998 and is currently offered at several universities across Europe. In the years that followed, due to various terrorist attacks, earthquakes, significant natural disasters, and increased media coverage, policymakers began to intensify their focus on training related to all aspects of disasters, including health implications.

Currently, many medical universities around the world offer bachelor's, master's, and doctoral programs in these areas. In the United States, there are at least 20 universities and colleges which provide various academic programs related to health in disasters. Given Iran's vulnerability to disasters, the country has a long history of disaster education. The establishment of the Red Crescent and other relief organizations has consistently highlighted this focus. Today, a variety of programs are offered at the associate and bachelor's degree levels in universities affiliated with the Ministry of Science. Courses in "Health in Disasters and Emergencies," offered under different titles, have been a regular part of the curricula in health sciences, nursing, and medical programs, typically as 1- and 2-unit courses. Moreover, many short-term courses have been developed and implemented by different universities. The "Ph.D. in Health in Disasters and Emergencies" program was first introduced in the country in 2009 at Tehran University of Medical Sciences and has since expanded to include Iran Universities of Medical Sciences, Shahid Beheshti Universities

of Medical Sciences, the University of Social Welfare and Rehabilitation Sciences, and Yazd University of Medical Sciences.

The "Master of Public Health" (MPH) program focusing on Disasters and Emergencies was initiated in 2005 at the School of Public Health, Tehran University of Medical Sciences. Subsequently, similar programs were introduced at Shahid Beheshti University of Medical Sciences and Kerman University of Medical Sciences, and the University of Social Welfare and Rehabilitation Sciences.

Career Status of Graduates

Graduates of this program are equipped to work in the following sectors:

- Ministry of Health, Treatment, and Medical Education (Disaster Risk Management Office, General Administration of Passive Defense, Environmental Health Emergencies, Center for Communicable Diseases Management)
- National Emergency Organization (formerly known as the National Disaster and Emergency Medical Services Management Center, Crisis Management Department, Health Policy Council in Disasters and Incidents, Medical Operations Coordination Center)
- Medical universities nationwide (Health Deputy, Treatment Deputy, Pre-hospital Emergency Center, Provincial Health Center, County Health Center)
- World Association for Disaster and Emergency Medicine (WADEM)
- Crisis management committees in public and private hospitals nationwide
- Red Crescent Society at national, provincial, and county levels
- Military and law enforcement agencies (healthcare sector)
- National Disaster Management Organization and its provincial and county branches
- State Welfare Organization

Philosophy (Values and Beliefs):

In verse 31 of Surah Al-Ma'idah, God Almighty states, "And whoever saves one [life] - it is as if he had saved mankind entirely." This highlights the importance of saving a single life as equivalent to safeguarding all of humanity. Thus, the commitment to protect and save lives is regarded as a religious, ethical, and social responsibility.

Given that both natural and man-made hazards pose significant threats to public health, this program, inspired by the sacred verse, seeks to train individuals capable of effectively preventing death, injury, and suffering through preventing occurrences, mitigating impacts, and ensuring timely and effective responses.

The program emphasizes ethical, spiritual, professional, and legal values, including the preservation of human dignity, social justice, humanism, respect to employees, accountability, social responsibility, scientific and professional integrity, commitment, teamwork, innovation, and consideration for disaster victims and the injured. These values are essential educational components in this field.

Vision

Over the next decade, graduates of this program will play a pivotal role in cultivating the necessary human resources for medical universities, colleges, and health treatment networks throughout the country. They will set the highest standards in disaster health care compared to their regional counterparts. Furthermore, these graduates will offer services at the regional level, position Iran as a center for health education in disaster management, and enhance the reputation of the Islamic Republic of Iran's health system in the region.

Mission:

The mission of the Master's degree program in "Health in Disasters and Emergencies" is to cultivate knowledgeable, scientifically informed, capable, responsible, and community-sensitive professionals dedicated to reducing risks associated with both natural and man-made hazards. These experts will possess the skills to identify hazards, assess vulnerabilities, enhance preparedness, and ultimately improve community health while minimizing mortality, injuries, and other adverse health impacts arising from disasters and emergencies.

General Objectives:

The main goals of the program are to train knowledgeable and skilled professionals in the following areas:

- Designing, implementing, and evaluating strategies to prevent disasters and emergencies, mitigate vulnerabilities, and improve community and health system preparedness for both natural and man-made hazards
- Managing risks related to disasters and emergencies at both the community and health system levels
- Providing general and specialized education on health issues in the context of disasters and emergencies
- Designing and conducting health-related research in disasters and emergencies

Outcomes:

Graduates of this program are expected to:

- Foster and institutionalize a culture of disaster risk reduction and preparedness within the community and management organizations
- Strengthen community readiness for effective disaster response across different levels
- Prevent the occurrence of both natural and man-made disasters and mitigate their effects
- Enhance the scientific reputation of the country and attain scientific recognition at regional and international scales
- Increase the safety and health of people against threats posed by natural and man-made hazards, thus decreasing fatalities, injuries, and other negative health impacts
- Amplify the resilience and awareness of people and develop capacity to deal with disasters

Expected Competencies and Skills:**A: Core Competencies**

General competencies include:

- Skills in communication and interaction (course code: 2-15-16-17-21-23)
- Teaching abilities (course code: all courses)
- Critical thinking and problem-solving capabilities (course code: 3-5-15-16-17-32)

- Evidence-based management skills (including policy-making, planning, organizing, implementation, monitoring, supervision, and evaluation)

B: Specific Competencies

The specific competencies include:

Row	Competency	Professional Tasks	Course Code
1	Ability to design and implement educational programs for various segments of society (general public and employees)	Conduct educational needs assessments, identify needs, design educational initiatives, implement educational programs at different levels, and evaluate the effectiveness of educational programs	2-6-8-9-10-11-17-18-25-33
2	Ability to assess and analyze disaster risks	Identify hazards, evaluate vulnerabilities, assess capacities, prioritize risks, and formulate disaster risk management strategies	6-12-13-15-33
3	Ability to coordinate within departments, between departments, and with national and international aid agencies	Estimate the required amount and types of aid, communicate needs to relevant centers, and manage donations and public aid in affected areas	20-21
4	Ability to manage disasters effectively	Conduct rapid assessments, formulate response strategies, implement response plans, monitor and evaluate programs, manage prevention initiatives, mitigate structural and non-structural damages, and supervise recovery plans	6-8-9-10-11-14-17-19-21-22-23-24-25-26-27-28-29-30-31-32

5	Ability to communicate with national and international academic and specialized centers	Collaborate with national and international research centers, write and publish educational articles, and critique research projects	1-3-15-21-32
6	Ability to design and conduct scientific research and projects	Formulate and propose research initiatives, provide consultation and guidance, and implement research projects	1-2-3-15-16

Educational Strategies

The review groups will select relevant strategies that align with their expertise while discarding any unrelated strategies.

This program is founded on the following approaches:

Task-Based Education

Problem-Based Education

Subject-Based Education

Evidence-Based Education

Student-and Instructor-Centered Education

Community-Oriented Education

Education Methods and Techniques:

In this course, the following educational methods and techniques are used:

- A range of conferences and seminars, including intra-departmental, inter-departmental, hospital, interdisciplinary, and inter-university formats
- Small group discussions, workshops, journal clubs, and book readings- Case presentations
- Simulation techniques and distance learning, based on available facilities
- Involvement in lower-level education
- Self-directed learning and study
- Customized educational methods and techniques tailored to meet specific needs and objectives

Ethical Expectations:

Learners are expected to:

- Strictly adhere to regulations that ensure the safety of patients, staff, and the workplace. These regulations will be reviewed by the relevant educational group.
- Maintaining professionalism
- Safeguard all resources and equipment under all conditions
- Show respect for instructors, staff, peers, and fellow learners, and foster a positive and respectful workplace atmosphere
- Consider social and professional ethical principles when providing feedback on the program
- Follow ethical research guidelines when conducting field-related research.

Evaluation:**A - Evaluation Methods:**

Students will be assessed using the following methods:

- Written
- Oral
- OSFE (Objective Structured Field Examination)
- DOPS (Direct Observation of Procedural Skills)
- Project-based Assessment
- A Portfolio including logbook evaluations, exam results, essays, references from supervisors, reminders, work certificates, and related documentation.

B - Frequency of Evaluation:

- Intra-departmental examinations will be conducted based on the decisions of the educational group.
- National examinations will be organized in accordance with national regulations.

Chapter Two

Minimum Requirements for the Non-Continuous Master's Program in Health in Disasters and Emergencies

Minimum Number of Faculty Required:

A: Full-time and permanent faculty members must be appointed according to the decree of the Council for the Expansion of Medical Universities, with relevant specializations. There should be at least one PhD holder from each specialization:

Health in disasters and emergencies

Emergency medicine

Nursing

B: Supporting Academic Departments:

Geology and Seismology

Geography and Climatology

Sociology

Medical Ethics

Health Services Management

Clinical Psychology

Nutrition Sciences

Epidemiology

Health Education and Health Promotion

Infectious Diseases

Psychiatry

Social Medicine

Required Staff:

- At least one educational expert and one administrative secretary

Required Facilities and Spaces:

- Classrooms
- Conference hall
- Instructors' rooms
- Students' rooms
- Archive

- Computer Site
- Internet Access
- Library
- Educational Website for the Department

Special Spaces Required:

In addition to the aforementioned spaces, additional areas are crucial for effective teaching, especially for practical courses. For example, sites affected by disasters, as well as organizations, institutions, and offices involved in disaster management. Mass gathering venues and disaster or accident scenes can provide invaluable practical training opportunities for students.

Required Population or Samples:

- Individuals affected by disasters, and those living in disaster-prone areas

Required Equipment:

- No major equipment is needed. All existing facilities and equipment in related organizations, such as the Red Crescent Society, the National Disaster Management Organization, the National Meteorological Organization, the Seismology Research Institute, and the National Emergency Organization will be utilized for training the students.

Chapter Three

Program specifications and courses

Program Details:

1. Program Name: Non-Continuous Master's Program in Health in Disasters and Emergencies (MSc)

2. Program Duration and Structure:

This program adheres to the educational regulations set forth by the Supreme Council for Medical Science Planning for non-continuous master's programs.

3. Courses and number of credits

A total of 32 credits are required for completion, outlined as follows:

Compulsory core credits: 23 credits

Non-core: 5 credits

Thesis: 4 credits

Total: 32 credits

Table A - Compensatory Courses

Course code	Course Name	Course Credits			Training Hours			Prerequisite or Presented Simultaneously
		Theoretical	Practical	Total	Theoretical	Practical	Total	
01	English language	3	-	3	51	-	51	-
02	Medical information systems *	0.5	0.5	1	9	17	26	-
03	Biostatistics and health indicators	1.5	0.5	2	26	17	43	-
04	Fundamentals of health services management	2	-	2	34	-	34	-
05	Fundamentals of epidemiology	1.5	0.5	2	26	17	43	-
Total					10			

A total of 10 units of compensatory courses, as identified by the educational department and the approval of the university's Postgraduate Council

* This course is mandatory for all students who have not previously completed it.

Table B: Core Courses

Course code	Course Name	Course Credits			Training Hours			Prerequisite or Presented Simultaneously
		Theoretical	Practical	Total	Theoretical	Practical	Total	
06	Fundamentals of emergencies and disasters management	2	-	2	34	-	34	-
07	Health Services system in Iran and the world	1.5	0.5	2	26	17	43	-
08	Prevention and damage mitigation in emergencies and disasters	2	1	3	34	34	68	-
09	Preparedness in disasters	1.5	0.5	2	26	17	43	-
10	Response in emergencies and disasters	1.5	0.5	2	26	17	43	-
11	Recovery in emergencies and disasters	0.5	0.5	1	9	17	26	-
12	Common hazards in Iran	1.5	0.5	2	26	17	43	-
13	Public health in emergencies and disasters	1.5	0.5	2	26	17	43	-

14	Hospital and pre-hospital management in disasters	1.5	0.5	2	26	17	43	-
15	Epidemiology and research methods in emergencies and disasters	1.5	0.5	2	26	17	43	-
16	Seminar	-	1	1	-	34	34	-
17	Internship	-	2	2	-	102	102	All core courses
Total				23				

Table C: Non-Core Courses

Course code	Course Name	Course Credits			Training Hours			Prerequisite or Presented Simultaneously
		Theoretical	Practical	Total	Theoretical	Practical	Total	
18	Designing, implementation and evaluation of drills in disasters	1	1	2	17	34	51	-
19	Mental and social health in disasters	1.5	0.5	2	26	17	34	-
20	Management of donations and international aid in disasters	0.5	0.5	1	9	17	26	-
21	Principles and fundamentals of risk communication in disasters	1	1	2	17	34	51	-
22	Health services in mass gatherings	0.5	0.5	1	9	17	26	-

	and complex emergencies							
23	Education in disasters	1.5	0.5	2	26	17	34	-
24	Environmental health measures in emergencies and disasters	1.5	0.5	2	26	17	34	-
25	Management of infectious diseases in disasters	1.5	0.5	2	26	17	34	-
26	Nutrition in disasters	2	-	2	34	-	34	-
27	Reproductive health in disasters	1.5	0.5	2	26	17	34	-
28	Management of non-communicable and chronic diseases in disasters	1.5	0.5	2	26	17	34	-
29	Primary clinical services in disasters	1.5	0.5	2	26	17	34	-
30	People-Centered management in disasters	1.5	0.5	2	26	17	34	-
31	Protection and safety of employees in disasters	0.5	0.5	1	9	17	26	-
32	Qualitative studies in disasters	1.5	0.5	2	26	17	34	-

33	Result-based planning and management	1.5	0.5	2	26	17	34	-
Total				29				

* Students must complete 5 credits from the courses outlined in Table C based on their thesis topic, their advisor's consent, and the approval of the university's postgraduate council.

Mandatory Workshops:

- Passive Defense
- Entrepreneurship
- Application of GIS in Disasters
- Biosafety

Students are required to attend these workshops during their studies and submit participation certificates prior to defending their thesis.

Course Name: English Language	Course code: 01
Prerequisite or resented Simultaneously: None	
Course Credits: 3 (Theoretical)	
Course Type: Theoretical	
Overall Course Objective: To enhance students' abilities to utilize specialized English resources and write scientific texts related to health in disasters	
Course Description: This course is designed to familiarize students with specialized English texts related to health in disasters. It also covers relevant books and resources on scientific writing to enhance students' skills in utilizing these resources and composing scientific texts in English.	
Main Topics: (51 hours) - Familiarization with specialized terminology - Reading and comprehending relevant texts - Practicing listening, speaking, comprehension, and writing skills - Translating specialized articles between English and Persian - Locating relevant research from electronic sources	
References: 1- Terminology: Basic Terms of Disaster Risk Reduction. From Living with Risk, ISDR Pub. Last edition 2- Pootheidare G. Mussavi AS. A glossary of disaster management, Institute of applied science and technology, Iranian Red Crescent Society. Last edition. 3- Koenig KL, Schultz CH. Disaster medicine: Comprehensive principles and practices. Cambridge univ pt. Last edition 4- Gregory RC. Philip DA. Ernik ADH, Robert GD et al. Disaster Medicine. Mosby Elsevier. Last edition 5- Wallwork A. English for writing research papers. Springer. New York, Last edition	
Student Evaluation Method: - Final exam (Written) 40% - Presentation (in English on a topic related to health in disasters) 10% - Translation an English article to Persian (approved by the instructor) 10% - Translation of a Persian article to English 20% - Class participation and engagement in discussions in English 20%	

Course Name: Medical Information Systems	Course code: 02
Prerequisite or Presented Simultaneously: None	
Course Credits: 1 (0.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: This course aims to familiarize students with search engines and the functions of five key software components: Spider (crawler), Crawl (crawler), Indexer (archiver), Database (database), and Ranker (ranking engine). Students will learn to distinguish between these software components and their capabilities across various search engines, such as Bing, Yahoo, and Google. Furthermore, students will explore various meta search engines and advanced search techniques, including Boolean operators, common truncation errors in keywords, the use of asterisks, and the impact of parentheses and keywords on search results. They will also gain an understanding of the features of popular internet browsers like Internet Explorer, Mozilla, Firefox, and Google Chrome. Additionally, the course aims to familiarize students with the library services available at their university. Students will learn about databases and publishers relevant to health and medical sciences, as well as important websites like PubMed and Cochrane. A solid understanding of citation metrics (such as citations), journal impact factors, author H-index, and the utilization of reference management software (such as Reference Manager) is crucial.	
Course Description: Throughout the course, students will learn effective scientific search methods, tackle challenges associated with internet searches, understand concepts related to article and journal evaluation, and search on major publishers' websites. As a result, they will be equipped to conduct organized searches using both browsers and databases. Ultimately, students will be able to create a personal library utilizing reference management software to gather the necessary resources for writing their theses, articles, and reports.	
Main Topics: (9 hours Theoretical - 17 hours practical) - Familiarity with general search engines and their differences, and comparing several search engines based on identical searches (Practical work: performing advanced individual searches, using Boolean search (Not, Or, And) in PubMed during class) - Learning about the roles of the five software components: Spider (crawler), Crawl (crawler), Indexer (archiver), Database (database), and Ranker (ranking engine) in each search engine - Exploring browsers like Internet Explorer, Mozilla Firefox, and Google Chrome, along with their features (Practical work: organizing and saving Favorites on a flash drive)	

- Gaining knowledge of the services offered by the university library, including access to internal and external journals and comprehensive software
- Familiarity with publishers, such as Elsevier, EBSCO, Wiley, and Springer
- Familiarity with databases and information sources: Web of Science, Science, Scopus, ProQuest, Biological Abstracts, etc.
- Learning about citation databases
- Familiarity with comprehensive medical article databases like Medlib, Iranmedex, and Irandoc
- Search techniques using Medical Subject Headings (MeSH)
- Understanding citation metrics (like Citation), journal evaluation (Impact Factor), and author evaluation (H-index) in relevant databases
- Familiarity with the application of DOI
- Familiarity with PubMed and its collection of articles, the Medline database, gene database, and available online software
- Practical experience with EndNote software to create a personal library from resources

References:

- 1- www.medlib.ir
- 2- www.proquest.com
- 3- www.ncbi.nlm.nih.gov

Student Evaluation Method:

- Formative exams during the semester 25%
- Written final exam 50%
- Assignments 10%
- Active participation in class 10%

Course Name: Biostatistics and Health Indicators	Course code: 03
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the principles and fundamentals of biostatistics and the application of statistical methods in research design, result interpretation, and various health-related indices	
Course Description: By the end of the course, students will become familiar with blood sampling, data classification, hypothesis testing, and interpretation of test results.	
Main Topics: (26 hours Theoretical - 17 hours practical) - An overview of key definitions and concepts: variables and dispersion, central tendency indices (mean, median, mode), dispersion indices (range, average deviations, variance, standard deviation), coefficient of variation, practical calculation of various indices, drawing and utilizing different types of charts, systematic error, precision, and accuracy - Introduction to probabilities - Sampling methods and estimating sample size in different studies - Changing variables and outliers - Estimation and hypothesis testing, statistical assurance and confidence intervals, hypothesis testing, comparing means and variances of two samples, ratio estimation and hypothesis testing for paired and unpaired samples - Analysis of Variance (ANOVA), including one-way ANOVA and post-ANOVA comparisons - Regression: simple linear regression, parameter estimation, and hypothesis testing of regression parameters - Topics chosen by students, with a focus on disaster health research	
References: - Mohammad K., Malek Afzali H. Statistical Methods and Health Indicators. Last edition	
Student Evaluation Method: - Final exam, essays and Multiple choice 30% - Group work 40%	

- Problem solving during the term 30%

Course Name: Fundamentals of Health Services Management	Course code: 04
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (Theoretical)	
Course Type: Theoretical	
Overall Course Objective: To familiarize students with various management theories and their application within health organizations, principles and fundamentals of health services management in the country, developing skills for implementing health management methods at different levels	
Course Description: This course covers the principles and fundamentals of management and planning in health system as well as effective management and planning health organization services in response to disasters.	
Main Topics: (34 hours Theoretical) - Fundamentals and definitions of management in health sector - Management theories and analysis of new organizational and management theories - Attitude and leadership in healthcare management - Coordination in managing healthcare organizations - The role of communication in healthcare organization management - Various control techniques in managing healthcare organizations - Concepts related to organizational improvement and change management in healthcare organizations - Individual and organizational creativity and innovation in healthcare organizations - Empowering managers and staff within healthcare organizations - Methods for service evaluation and quality improvement in healthcare organizations - National health programs - Analysis of the current health system services - Health needs assessment - Principles of planning - Familiarity with different health care delivery systems around the world - Familiarity with health care delivery system in Iran - Familiarity with international healthcare organizations	

References:

- WHO Reports. Last edition
- Ali Rezaeian, Principles of Management. Last edition
- Ali Rezaeian, Organizational Behavior Management. Last edition
- Mossadegh Rad, Organization and Health Management. Last edition
- Robbins S., Senzu D. Principles of Management. Last edition
- Arab M. et al., How does a hospital function as an organization? Last edition
- Asefzadeh S., Rezapour A. Healthcare Management. Last edition

Student Evaluation Method:

- | | |
|------------------|-----|
| - Final exam | 50% |
| - Mid-term exam | 20% |
| - Class activity | 30% |

Course Name: Fundamentals of Epidemiology	Course code: 05
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical- 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the principles and methods of epidemiology and their application to health-related fields and develop their skills to critique and design epidemiological studies	
Course Description: This course provides an introduction to epidemiology as one of the foundational courses in health sciences.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Concepts and models of epidemiology (Scope of epidemiology, disease severity, and various disease models) - Health and disease measures (risk, odds, and rates) - Effect measures (relative and absolute risk) - Different sources of epidemiological data - Principles of study design, evaluation of the advantages and disadvantages of each method - Types of errors in epidemiological studies - Concepts of sensitivity, specificity, predictive value, and screening - Disease surveillance systems - Techniques for outbreak detection and management - Practical tasks on all above topics	
References: - Gordis L. Epidemiology. Last edition - Malek Afzali H., Majdzadeh R., Fotoohi, A. et al. Methodology of Applied Research in Medical Sciences. Last edition	
Student Evaluation Method: - Final exam 50% - Designing a study and justifying the selected methods 30% - Class activity 20%	

Course Name: Fundamentals of Emergencies and Disasters Management	Course code: 06
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (Theoretical)	
Course Type: Theoretical	
Overall Course Objective: To familiarize students with the principles of disaster management and various models of disaster management and planning	
Course Description: The course is designed to to make students familiar with the principles of disaster management, models of disaster management and planning, Fundamentals models of disaster planning.	
Main Topics: (34 hours Theoretical) - Fundamentals of emergencies and disasters management - Training and research in disasters - Disaster management cycle: prevention, preparedness, response, recovery, and damage mitigation - Status of incidents, disasters, and calamities in Iran, in the region, and in the world - Familiarity with scientific departments, executive organizations, and stakeholders in the field of health disaster in Iran and the world - Balance theory in disaster management - The role of insurance in managing unexpected incidents - The role of information technology (remote sensing and the internet) in disaster management - Emergency operations plan for effective disaster management - Hospital Incident Command System (HICS) - Risk analysis - Structural and non-structural damage mitigation measures - Information management systems in disasters - Logistics - Humanitarian aid management - Incident command system - The role of prehospital emergency services, hospitals, and health sector in disaster management - Mass casualty incident (MCI) management - Volunteer management	

- Management of corpses
- Management of pets
- Rescue operations
- Management of displaced persons and refugees
- Camp management
- Recovery and reconstruction
- Disaster management structure in Iran and the world
- Ethics fundamentals
- Ethical challenges in disasters
- Red Cross and Red Crescent principles
- International humanitarian law
- Geneva Protocols of 1977
- Laws of War, displaced persons and refugees

References:

- Crisis Management in Hospitals. Deputy of Treatment Publications, Medical Sciences of Kashan. Last edition
- Hospital Incident Command System. Virtual Learning Center Publications. Last edition
- Koenig KL, Schultz CH. Disaster medicine. Comprehensive principles and practices. Cambridge univ. pr. Last edition
- Gregory RC, Philip DA, Erik ADH, Robert GD et al. Disaster Medicine, Mosby Elsevier. Last edition

Student Evaluation Method:

- Final exam 50%
- Mid-term exam 30%
- Class activity 20%

Course Name: Health Services System in Iran and the World	Course code: 07
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical- 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with management and health care delivery systems in Iran and the World	
Course Description: In this course the students get familiar with different management and health care delivery systems in Iran and some selected countries with a well-developed health system.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Definition and components of health systems - Governance, stewardship, equity, and confidentiality within health systems - Various health systems around the world: Pros and Cons - Health systems in England, Russia, Japan, Cuba, United States, Germany, France, etc. - Financing mechanisms in health systems - Payment methods to service providers: Pros and Cons - History of health system in Iran - Structure of health system in Iran - County health and treatment network - Health services management in disaster in Iran - Health care delivery - Governance, stewardship, equity, and confidentiality within health system in Iran - Family physician program in Iran and the world - Health system challenges in Iran	
References: - Pileroudi S. Health and Treatment Network. Last edition - Asfzadeh S. Health and Treatment Management. Last edition - Ghazi Zadeh Hashemi, S. A., Firoozi, M. A Look at the Health Structure in Iran and the World. Sokhan Gostar Publications. Mashhad. Last edition - WHO report 2000	

Student Evaluation Method:

- Final exam 50%
- Choosing one of the functions of the health system and examining how it is performed in the country or other countries of the world 40%
- Class activity 10%

Course Name: Prevention and Damage Mitigation in Emergencies and Disasters	Course code: 08
Prerequisite or Presented Simultaneously: None	
Course Credits: 3 (2 Theoretical - 1 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with principles, fundamentals, and strategies for preventing disasters and mitigating damage in disasters	
Course Description: The course covers strategies to prevent disasters and mitigate their effects on communities.	
Main Topics: (34 hours Theoretical- 2 hours Practical) - Fundamentals of prevention and damage reduction in disasters - Types of prevention and their application to the field of disaster - Strategies to prevent disaster (reducing the likelihood of incidents) - Approaches to minimize community exposure to disasters - Changing nature of risks and hazards - Temporal and spatial changes of natural hazards - Definition and concept of resilience in disasters - Policy-making and preventive policies for mitigating damages in disasters - International initiatives for disaster prevention and damage mitigation - Strategies to decrease community vulnerability - Risk avoidance, acceptance, sharing, and distribution - Types of damage reduction strategies - Structural damage reduction and its components - Non- structural damage reduction and its components - International and national experiences in preventing hazard occurrence - Experiences in structural and non-structural damage reduction - Preventing disasters in healthcare facilities - Damage reduction in healthcare facilities - Public education - Role of the health system in preventing reducing damage in disasters	

- Practical activities on the above topics guided by the instructor

References:

- Coppola P. Introduction to international disaster management. Last edition
- USAID. Introduction to disaster risk reduction. Last edition

Student Evaluation Method:

- Final exam 50%
- Choosing a specific hazard and developing structural and non-structural prevention and damage mitigation strategies for it 40%
- Class activity 10%

Course Name: Preparedness in Disasters	Course code: 09
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the concept of disaster preparedness and its role in effective disaster management	
Course Description: The course discusses the importance of preparedness in effective disaster management, various disaster preparedness programs, and different methods of planning for disaster preparedness.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Fundamentals of prevention and damage reduction in disasters - Role of preparedness in reducing disaster impacts - Specific preparedness for natural and man-made hazards - Individual and household preparedness - Public education - preparedness drills and exercises: Practically and Theoretically - Community preparedness - Preparedness of responsible organizations in disaster management - Provision and storage of equipment and supplies - Staff training - Preparedness plans and practical exercises - Preparedness planning team - Role of media in enhancing the preparedness of individuals and organizations - Practical work on communication with media - Challenges, and obstacles to enhancing the preparedness of individuals, households, and organizations - Cultural and social characteristics of communities and their role in preparedness - Preparedness planning for health facilities - Role of the health system in enhancing community preparedness for disasters	

References:

- Coppola P. Introduction to international disaster management. Last edition
- Sutton, j., Tierney, K. Disaster preparedness: concept, guidance and research. University of Colorado. Last edition

Student Evaluation Method:

- Final exam 50%
- Choosing a specific hazard and developing a preparedness plan for it 20%
- Formulating a preparedness plan for one of the health organizations 20%
- Class activity 10%

Course Name: Response in Emergencies and Disasters	Course code: 10
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with planning and management of response operations in disasters	
Course Description: The course covers the characteristics of response phase, planning and managing response operations in disasters.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Fundamentals, definitions and concepts - Disaster management cycle and the role of the response phase - Characteristics of the response phase and its connection with other phases - Timely prediction and early warning - Rapid situation assessment: Practically and Theoretically - Emergency call and emergency announcement: Practically and Theoretically - Incident command system and its implementation - Control, and communication - Coordination - Scene management - Manage casualties - Triage, Emergency first aid, and transportation of victims - Management of emergency services and practical drills - Provision of supplies in emergency situations - Protection and management of staff - Risk communication and information dissemination - Donations Management - Management of important individuals - Management of psychological effects of disasters - Communication with other organizations, either cooperating or supporting, as well as upstream organizations	

- Field trips/Site visits to the Emergency Operations Center
- Visits to hospitals to get familiar with the pre-hospital and hospital emergency systems

References:

- Ardalan, A. et al. National public health disaster and emergency operations plans. Raz Nahan Publications. Last edition
- Khanke, H. Hospital disaster plan. Last edition
- Related articles as per the relevant professor's recommendation

Student Evaluation Method:

- Final exam 50%
- Choosing one of the disasters, analyzing health system responses, and deliver a lecture 30%
- Class activity 20%

Course Name: Recovery in Emergencies and Disasters	Course code: 11
Prerequisite or Presented Simultaneously: None	
Course Credits: 1 (0.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with principles and fundamentals of recovery in disasters	
Course Description: The course covers the principles and fundamentals of recovery from the adverse effects of disasters, especially the recovery of health facilities.	
Main Topics: (9 hours Theoretical - 17 hours Practical) - Concepts and principles of recovery, rehabilitation, and reconstruction - Recovery stages (activation, information dissemination, and damage assessment) - Effects of disasters on community - Pre-disaster recovery actions (short-term and long-term recovery) - Types of recovery - Economic recovery - Physical, psychological, and individual recovery - Family and social recovery - Recovery planning - Business continuity planning - Health recovery and its principles and processes - Special considerations in recovery - Transition from emergency to normal state - Justice in recovery - Concepts of sustainable development - Principles of sustainability, recovery, and development - Challenges and issues in recovery - Experiences from previous disaster recoveries - Practical work in organizations responsible for recovery and their roles	

References:

- Coppola P. Introduction to international disaster management. Last edition
- FEMA. National disaster recovery framework. Last edition

Student Evaluation Method:

- Final exam 50%
- Choosing a disaster and reviewing recovery plans afterwards 40%
- Class activity 10%

Course Name: Common Hazards in Iran	Course code: 12
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with common hazards in Iran, their causes and exacerbating factors, health effects, and their management	
Course Description: This course covers common hazards in Iran, their formation, facilitating factors, and their health effects. Students will learn ways to prevent their occurrence, mitigate their impacts, and effectively respond to them.	
Main Topics: (9 hours Theoretical - 17 hours Practical) - Familiarity with common hazards in Iran, such as floods, earthquakes, volcanoes, landslides, droughts, heatwaves, and cold waves, tornadoes, climate change, dust storms, blizzards, hazardous materials, war, social unrest, terrorism, bioterrorism, fires, and explosions, transport accidents (road, rail, air, and sea) - Formation and physiology of various hazards - Scales for measuring disaster impact and severity - Predicting disasters and early warnings - Health effects of various hazards - Strategies for preventing and mitigating the effects of hazards - Scene management during hazards - Points to consider in response and rehabilitation planning - Practical work and extraction of the above points in a hypothetical hazard scenario	
References: - Koenig, KI. Schultz CH. Disaster medicine: Comprehensive principles and practices. Cambridge univ pr. Last edition - Gregory, RC, Philip, DA. Enk, ADH, Robert, GD et al. Disaster Medicine, Mosby Elsevier. Last edition - Bryant E. Natural Hazards. Last edition - Natural hazard: Earth's processes as hazard, Disasters and catastrophes. Edward A. Keller and Duane E. Devecchio, Last edition - Natural Disaster, Patrick Abbott. Last edition	

- A history of earthquakes, floods, plagues, and other catastrophes. John Withington. Last edition
- Natural and man-made catastrophes through the centuries. Brenda, Z., Guiberson. Last edition

Student Evaluation Method:

- Final exam 50%
- Selecting a hazard and preparing a national and global profile of its health impacts and preparing a response plan for one of the healthcare facilities to address the selected hazard 50%

Course Name: Public Health in Emergencies and Disasters	Course code: 13
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with health outcomes of various hazards and the management of public health programs in disasters	
Course Description: In this course, the health outcomes of various hazards and the health response to different disasters will be discussed.	
Main Topics: (26 hours Theoretical-17 hours Practical) - Concepts and principles - Role and responsibilities of the health sector in disasters - Structure of disaster management in the health sector in the country - Health impacts of various natural and man-made hazards - Prevention and control of communicable diseases in disasters - Prevention and control of non-communicable diseases in disasters - Management of environmental factors in disasters - Maternal and child care in disasters - Health education in disasters - Nutrition management - Initial assessments in disasters - Disaster management system in the health sector - Practical implementation of all the above points in a pre-designed drill	
References: - Ardalan, A. et al. National public health disaster and emergency operations plans. Raz Nahan Publications. Last edition - PAHO. Natural disasters. Protecting the public health. Last edition. - Landsman, LY. Public health management of disasters: the practice guide. American health association. Last edition	

Student Evaluation Method:

- Final exam 50%
- Selecting one of the topics related to public health in disasters and preparing related materials for 1.5 hours in class 50%

Course Name: Hospital and Pre-Hospital Management in Disasters	Course code: 14
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: By the end of this course, students will be familiar with the importance of providing healthcare services in disasters, the role of pre-hospital and hospital emergency services in delivering these services, and the management of healthcare facilities during disasters.	
Course Description: In this course, the planning and management of pre-hospital and hospital emergency responses to disasters, as well as the recovery management of healthcare facilities will be discussed.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Introduction to the importance of pre-hospital and hospital emergency services in disasters - Vulnerability assessment of pre-hospital and hospital emergency services - Preparing pre-hospital and hospital emergency services for disaster response - Hospital safety index - Designing and conducting preparedness drills in healthcare facilities - Preparedness, operational, and contingency planning in healthcare facilities - Familiarity with the incident command system and its components - Early warning systems and their applications - Familiarity with the structure, roles, processes, and management of pre-hospital emergency services in disasters - Familiarity with hospital roles, their responsibilities, structures, and management in disasters - Methods to increase the capacity and stockpiling drugs and supplies - Evacuating health facilities - Familiarity with public health structures and their management in disasters and emergencies - Practical implementation of all the above topics in hospitals and healthcare centers	
References: - Khankeh, H. Hospital Preparedness in Disasters: National Program. University of Social Welfare and Rehabilitation Sciences Publications. Last edition - Ardalan A., Shariati, M., Kandi, M., Sadeghi, F. Disaster Risk Assessment in the Health Network System.	

Raz Nahan Publications. Last edition

- Koenig, KL. Schultz CH. Disaster medicine: Comprehensive principles and practices. Cambridge univ. pr. Last edition

- Gregory, RC., Philip, DA., Erik, ADH., Robert, GD. et al. Disaster Medicine. Mosby Elsevier. Last edition

Student Evaluation Method:

- Final exam 50%

- Practical task under the supervision of the instructor 30%

- Class participation 20%

Course Name: Epidemiology and Research Methods in Emergencies and Disasters	Course code: 15
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with common research methods, planning, and conducting research projects in disasters To help students gain insight into the applications of epidemiology in disasters, the role of epidemiologists, and develop skills necessary to apply their knowledge in disasters.	
Course Description: In this course, students will learn how to choose a topic, formulate research questions and hypotheses, set research objectives, collect and analyze data, and prepare reports. They will also learn about the use of epidemiological concepts and tools in managing health in disasters. Moreover, the epidemiology of hazards and the application of various epidemiological studies in disasters will be discussed.	
Main Topics: (26 hours Theoretical - 17 hours Practical) - Principles of disaster research - History and evolution of disaster research - Current status of disaster research - Research methods in disasters - Objectives of disaster research - Settings for disaster research - Designing and scenario planning for disaster research - Choosing a topic, problem statement, and writing an introduction - Literature review and search - Types and hierarchy of objectives, hypotheses, variables, and studies - Designing and selecting data collection tools - Sampling methods - Data analysis and interpretation - Various referencing methods - Article design and report preparation	

- Journals for publishing research results
- Ethics in disaster research
- Review of epidemiological concepts and principles
- Review of various epidemiological studies
- History and development of disaster epidemiology
- Epidemiology of various hazards worldwide and in Iran
- Role of epidemiologists in disasters
- Determinants of morbidity and mortality in disasters
- Epidemiology of health outcomes in disasters
- Types of epidemiological studies and their applications and limitations in disasters
- Rapid health needs assessment methods in disasters
- Designing and conducting rapid health needs assessments
- Periodic health status assessments
- Population estimation methods
- Designing and establishing a health surveillance system in disasters
- Outbreak detection and management
- Epidemiological data sources and databases related to disasters and emergencies

References:

- Koenig, KL., Schultz, CH. Disaster medicine. Comprehensive principles and practices. Cambridge Univ pr. Last edition
- Gregory, RC., Philip, DA., Erik, ADH., Robert, GD. et al. Disaster Medicine. Mosby Elsevier. Last edition
- Norris, FH. Disaster research methods: past progress and future directions. J. Trauma Stress. 2006 Apr; 19(2):173-84
- Daily, E., Powers, K. International Disaster Nursing. Cambridge University Press, Last edition
- Kako, M., Mitani, S., Arbon, P. Literature review of disaster health research in Japan: Focusing on disaster nursing education. Pre-hospital and disaster medicine. 2012; 27(2): 178-183
- Kelen, G., Sauer, LM. Trends analysis of disaster health articles in peer-reviewed publications. pre-and post-9/11. Am J. Disaster Med. 2008; 3(6): 369-376
- Richardson, RC., Plummor, CA. Barthelemy, JJ., Daphnes. Research after natural disasters: Recommendations and lessons learned. Journal of community engagement and scholarship. Last edition

- Disaster Epidemiology. The Johns Hopkins and IFRC public health guide for emergencies. Last edition
- PAHO. Epidemiologic surveillance after natural disasters. Washington DC. Last edition
- WHO. Rapid health assessment protocols for emergencies

Student Evaluation Method:

- Final exam 50%
- Choosing a research topic and writing a proposal 30%
- submitting an article on health in disasters and emergencies 20%

Course Name: Seminar	Course code: 16
Prerequisite or Presented Simultaneously: None	
Course Credits: 1 (Practical)	
Course Type: Practical	
Overall Course Objective: - All students are required to complete the course. It aims to familiarize students with the design of educational programs for presentation in class or at scientific forums.	
Course Description: This course will cover the methods for selecting a topic, preparing for a scientific discussion, and compiling its content.	
Main Topics: (34 hours Practical) - Each student will select a topic under the supervision of a faculty member (referred to as the "seminar advisor") and conduct research on that topic. This research should include a review of literature and current status, the latest developments in the field, and significant future trends related to the topic. - Students are also required to attend their peers' oral presentation sessions. - The chosen seminar topic may align with or differ from the student's thesis topic. However, it is recommended that the seminar topic and thesis be aligned, and that the thesis advisor also serves as the seminar advisor. - The student must submit a written seminar report by the time of the final oral presentation. This report must be typed, adhere fully to the principles of written presentation, be appropriate in both content and format, and receive approval from the seminar advisor. Poor quality of the report and delays in submission will result in a deduction of partial credit for the seminar course.	
Written Presentation: The written presentation is one of the important parts of the seminar. The report should adhere to the quantitative, qualitative, and formatting criteria considered in scientific-technical reports. Therefore, this section addresses quality control, components, structure, and the format of the report.	
Quality Control of the Seminar Report: Quality control (content and appearance-wise) is done paragraph by paragraph. To do so, the following aspects should be taken into consideration: - Scientific-technical accuracy and precision - Logical consistency and coherence between consecutive paragraphs	

- Rationality and correctness of arguments
- Appropriate selection of titles
- Adherence to scientific-technical writing style and language features
- Proper selection and usage of words
- Presence of a suitable introduction
- Proper use of punctuation marks
- Correct inclusion of footnotes and reference numbers
- Choosing equivalents for foreign terms and correct spelling
- Correct formatting of paragraphs on the page (observing margins from both edges)
- Accurate formatting of quoted paragraphs
- Clarity of figures and tables (usually placed between paragraphs)
- Appropriate placement of figures and tables
- Use of appropriate type and size for the font
- Correct writing of formulas, units, scales, and abbreviations
- Proper margin settings
- Suitable spacing between different parts of the report

Components and Structure of the Seminar Report:

The components of the seminar report are listed below. Items in brackets are optional:

- Cover (content on the title page is also included on the cover)
- Blank page
- Title page (according to Figure 1)
- Abstract
- Page(s) of the table of contents
- Page(s) of the list of figures and tables
- Sections of the main text (starting with the introduction section)
- [Summary of each independent chapter at the end of the same chapter]
- Conclusion
- Appendices
- References (sources)
- Blank page

Format of the Seminar Report Content:

To prepare the seminar report, please use Microsoft Word software exclusively. The main body of the report should be formatted in a single-columned layout using Times New Roman font, size 12, and single-spacing. All section titles must be in Times New Roman font, size 14, bold, while subsection titles should be in Times New Roman font, size 12, bold. The title of each section and subsection should be preceded by one blank line and numbered accordingly. The first line of all paragraphs should be indented by 0.27 inch (0.7 cm). The text margins should be set to 1 inch (2.5 cm) on all sides.

University Logo

Name of the School

Name of the University

MSc Seminar

Major

Specialization

Title of Seminar

By:

Student's Name

Seminar advisor

Date

Figure 1- Title page

Length of Report:

The minimum number of pages should be 15.

Footnotes:

If needed, all Latin footnotes should be left-aligned using Times font, size 9.

Introduction of Symbols and Variables in the Text:

Any variable or symbol used in the report should be defined upon its first reference.

Formulas and Equations:

Formulas should be left-aligned and presented over one or more lines. The size of the formulas must be consistent with the text, and all variables and numbers should be typed in Times New Roman font. Formulas should be numbered sequentially by chapter (e.g., 1-5 indicates formula number 5 from chapter 1). The formula number should be placed in parentheses on the right side of the formula line.

Units:

Units for numbers or quantities presented in tables and figures should be clearly specified.

Tables:

Each table must include a number and title (explanation), centered above the table in Times New Roman font, size 10, and numbered sequentially by chapter (e.g., table number 5 from chapter 1 would be indicated as 1-5). Tables should be inserted into the text immediately after their referenced point. All numerical entries within the tables should be centered. It is essential to specify the unit of measurement for quantities presented in the table. Additionally, there should be one blank line before and after each table to separate it from the surrounding text.

Figures and Charts:

Each figure and chart must include a number and a title (explanation), centered below the figure in Times New Roman font, size 10, and numbered sequentially by chapter (e.g., 1-5 means figure number 5 from chapter 1). Figures should be inserted into the text at the point where they are referenced. It is mandatory to include the unit of measurement for all quantities depicted in the figures. All figures must be cited within the report text. When preparing figures, ensure that the size of numbers, text, quantities, and legend labels is sufficiently large to be clear and readable after insertion into the report. Each figure should be separated from the surrounding text by one blank line both before and after.

Conclusion:

A conclusion section is mandatory after the main text of the report.

References:

References should be listed in the same order in which they are cited in the text. All references must be included in the report. Each reference should be fully detailed according to standard format. Type references in Times New Roman font, size 10. Use EndNote software to insert references, and select the Vancouver format for the report.

Oral Presentation of the Seminar:

The oral presentation of the seminar is also of high importance. Students are encouraged to improve their oral presentation skills through practice and perseverance, thereby improving their ability to convey scientific-technical content effectively. This section offers guidance to strengthen these skills. It begins with a discussion on structured oral presentation, followed by an exploration of the presenter's characteristics and appropriate presentation methods.

Structure of the Presentation:

A structured seminar presentation should be conducted as follows:

- Begin with an engaging introduction to capture the audience's interest from the outset. The introduction should be delivered in short and effective sentences.
- Acknowledge cultural norms and environmental etiquette by greeting the audience and seeking permission from the professors regarding the presentation topic (addressing the audience and professors briefly, without exaggeration or flattery).
- Provide a brief self-introduction
- Present the main title and key subheadings as they appear on the slides.
- Clearly outline the scope and limitations of the topic.
- Briefly review previous work on the topic, potential opportunities, and challenges.
- Present the main content in well-defined sections, starting with concepts familiar to the audience and gradually explaining foundational ideas (each section should be of appropriate duration). Maintain a logical sequence and timing throughout the presentation.
- Provide stage-wise conclusions from each part of the discussion.
- Deliver a final summary and necessary conclusions upon completing all sections.
- Respond appropriately to questions from the audience.
- Express gratitude to the audience, especially to those who asked questions and participated.

Characteristics of the Presenter:

- Professional appearance, in accordance with societal norms

- Focus and composure
- Positivity and patience
- Ability to engage the audience's attention
- Proficiency in navigating the presentation environment and managing the presentation atmosphere
- Politeness in speech and conduct
- Effective eye contact
- Persuasive communication skills
- Presence of mind and quick-wittedness
- Calmness and control over nerves
- Ability to establish lively and dynamic face-to-face communication
- Presenter's speaking style
- The presenter should deliver the seminar following the outlined guidelines. It is important to recognize that this task is very delicate and sensitive. The presenter should try to make the least mistakes in both speech and behavior to ensure an effective and successful presentation, particularly when the oral presentation needs to be persuasive
- Before commencing the speech, take a moment to calmly observe the audience
- Maintain vocal variety; alter your volume between soft and loud, ensuring your voice matches the topic, spatial conditions, and number of attendees
- Utilize appropriate tone and intonation throughout your speech
- Aim for clarity and fluency; use short, impactful sentences imbued with emotion. Avoid filler words.
- When feasible, employ a variety of speaking styles
- Adhere to the planned presentation structure and manage your time effectively
- Avoid digressions and unnecessary commentary
- Make appropriate use of emphasis and repetition
- Incorporate pauses and moments of silence to enhance the presentation's impact on the audience
- Avoid using ambiguous language and phrases
- Continuously assess the audience's engagement, interest levels, and patience as they listen to and follow the content
- Use eye contact to foster dynamic communication with the audience and enhance your influence
- Ensure equitable distribution of eye contact among attendees

- Use body language appropriately, especially hand gestures; avoid remaining stationary. Try to involve the audience as much as possible
- When appropriate, soften your speech with cultural and social considerations relevant to the context
- Refrain from boasting, arrogance, or pretentiousness. Maintain humility, but do so authentically and confidently
- Utilize audiovisual aids effectively and in a timely manner
- Throughout the presentation, make a sincere effort to convey to the audience your high regard for them. Speak with confidence and, when uncertain, clearly communicate your doubts

References:

- Harden R. Dent J. Practical guide for medical teachers. Last edition
- Selecting a topic, developing educational content, and delivering it in the classroom according to the instructor's guidance

Course Name: Internship	Course code: 17
Prerequisite or Presented Simultaneously: All required courses	
Course Credits: 2	
Course Type: Internship	
Overall Course Objective: The purpose of this course is to familiarize students with the processes and functions of organizations related to disasters and emergencies, and to apply theoretical knowledge and learning in practice. How this will be implemented is described below. It is hoped that students, with careful attention and commitment to the points mentioned in this guide, will complete their internship with an appropriate level of quality, and that their learning from this course will be beneficial in other scientific and practical experiences, both during and after their studies.	
Course Description: In this course, the student applies their theoretical knowledge in practice by participating in an organization related to disaster and emergency management and health management in disasters, strengthening their skills in disaster management as a member of that organization.	
How to Implement the Internship Course (102 hours) This section addresses how to choose an internship topic, appoint an advisor, collect scientific materials, schedule the stages related to the preparation of the report, present the report orally during presentation sessions, and so forth: In this course, each student selects a topic under the supervision of one of the faculty members (department) referred to as the "internship advisor" and engages in the internship pertaining to that topic. After the appointment of an advisor, the organization for the internship (one of the organizations, companies, departments, or institutions that operate in a field related to the internship) is selected in order for the student to conduct the fieldwork. The student is required to attend one of the aforementioned locations for a specified number of hours as determined by the advisor (this time should not be less than 50 hours) . A certificate of the student's attendance is issued by the official or manager of the mentioned department in the agreed-upon section. The student is required to present an oral report and coordinate further with the advisor after attending the internship location for every three or four sessions. The cases examined during the internship should have the capability to explain the current health status	

in the location designated for study and should adequately address existing issues and problems. The report should examine and mention the ways of improving the level of health in the study location. The preparedness of staff, equipment, and infrastructure should be evaluated, and any shortages or issues should be documented, along with proposed solutions to address these problems in order to ensure readiness during a crisis.

Internship students are required to attend the oral presentation sessions of other students.

The subject of the internship can be aligned with the thesis topic of the student (even identical), or they can be in two different fields. It is recommended that the internship and thesis topics be aligned and that the thesis supervisor be selected as the internship advisor.

The report must be typed and prepared in full compliance with the principles of written presentation and must be appropriate in terms of content and format, receiving approval from the advisor. Poor quality of the report and delays in its submission will result in a deduction of part of the grade for the internship course.

Written presentation of the report

One of the important components of the report is its written presentation. The report must adhere to the standards pertinent to scientific-technical reports regarding quantitative, qualitative, and formatting aspects. Therefore, this section addresses quality control, components, structure, and the format of the report presentation.

Quality control of the report

Quality control should be conducted on a paragraph-by-paragraph basis. This control must be carried out in terms of both content and form. To achieve this, careful attention must be paid to the following elements:

- Scientific-technical validity and accuracy
- Presence of semantic relationships and coherence between consecutive paragraphs
- Logical consistency and the correctness of arguments
- Appropriate selection of the main title and subheadings
- Adherence to the stylistic and linguistic characteristics of scientific-technical texts
- Accurate and contextually appropriate choice of words

- Inclusion of a suitable introduction
- Compliance with writing conventions
- Appropriate use of punctuation marks
- Correct formatting of footnotes and reference numbers
- Selection of equivalent terms for foreign expressions and correct spelling
- Accurate insertion of paragraphs on the page (Adhering to the margins on both sides of the paper)
- Correct insertion of quoted paragraphs
- Clarity of figures and tables (which are typically inserted between paragraphs)
- Choosing suitable locations for the insertion of figures and tables
- Using an appropriate typeface and font size
- Correct writing of formulas, units, scales, and abbreviations
- Adherence to margin guidelines
- Maintaining appropriate spacing between different sections of the report

Components and Structure of the Report

The components of the report are outlined below. Items enclosed in brackets are optional.

- Cover (The title page content is also inserted on the cover)
- Blank page
- Title page (as illustrated in Figure 1)
- Abstract
- Table of Contents page(s)
- List of Figures and Tables page(s)
- Main Text Sections (beginning with the Introduction section)
- [Summary of each chapter at the end of the respective chapter]
- Conclusion and reference to important future procedures and areas for further study and development
- Appendices
- References (Bibliography)

- Blank page

Content Format of the Report

To type the report in Persian, please use only Microsoft Word (MS-Word) with Persian language support. The main text of the report should be prepared in a single-column layout with the B Nazanin font at 12-point size and single space. The titles of all sections should be formatted in bold using the B Nazanin font at 14-point size, and the titles of subsections should be in bold with the B Nazanin font at 12-point size. The title of each section or subsection should be typed and numbered with one blank line spaced from the end of the text of the previous section. The first line of all paragraphs should have an indentation of 0.7 cm. The margins from the sides, as well as the top and bottom of the page, should be set to 2.5 cm.

University Logo	
Name of the School	
Name of the University	
MSc Internship Report Major	Specialization
Title of Internship	
By:	
Student's Name	
Internship Advisor:	
Advisor's name	
Date	

Figure 1- Title page

Length of the Report

The minimum number of pages for the report must be 30 pages.

Foreign Words in Persian Text

For foreign words and names, use Persian equivalents that are commonly accepted and officially recognized whenever possible. In the case of ambiguous foreign names or non-standard Persian equivalents, only in the first reference and immediately following the mention of such terms, provide their Latin equivalent in a footnote or in parentheses after the term.

Footnotes

If necessary, all Persian footnotes should be right-aligned and written in B Nazanin font at size 11 pt, while Latin footnotes should be left-aligned and written in Times New Roman font at size 9 pt.

The introduction of symbols and variables in the text

Any variable or symbol used in the report should be introduced upon its first mention.

Formulas and Equations:

Formulas should be left-aligned and presented over one or more lines. The size of the formulas must be consistent with the text, and all variables and numbers should be typed in Times New Roman font. Formulas should be numbered sequentially by chapter (e.g., 1-5 indicates formula number 5 from chapter 1). The formula number should be placed in parentheses on the right side of the formula line.

Units:

Units for numbers or quantities presented in tables and figures should be clearly specified.

Tables:

Each table must include a number and title (explanation), centered above the table in Times New Roman font, size 10, and numbered sequentially by chapter (e.g., table number 5 from chapter 1 would be indicated as 1-5). Tables should be inserted into the text immediately after their referenced point. All numerical entries within the tables should be centered. It is essential to specify the unit of measurement for quantities

presented in the table. Additionally, there should be one blank line before and after each table to separate it from the surrounding text.

Figures and Charts:

Each figure and chart must include a number and a title (explanation), centered below the figure in Times New Roman font, size 10, and numbered sequentially by chapter (e.g., 1-5 means figure number 5 from chapter 1). Figures should be inserted into the text at the point where they are referenced. It is mandatory to include the unit of measurement for all quantities depicted in the figures. All figures must be cited within the report text. When preparing figures, ensure that the size of numbers, text, quantities, and legend labels is sufficiently large to be clear and readable after insertion into the report. Each figure should be separated from the surrounding text by one blank line both before and after.

Conclusion and Recommendations:

A conclusion and recommendations section is mandatory following the main text of the report.

References:

References should be listed in the same order in which they are cited in the text. All references must be included in the report. Each reference should be fully detailed according to standard format. Type references in Times New Roman font, size 10. Use EndNote software to insert references, and select the Vancouver format for the report.

Oral Presentation of the Report:

An oral presentation is also of high importance. Students are encouraged to improve their oral presentation skills through practice and perseverance, thereby improving their ability to convey scientific-technical content effectively. This section offers guidance to strengthen these skills. It begins with a discussion on structured oral presentation, followed by an exploration of the presenter's characteristics and appropriate presentation methods.

Structured Presentation:

An oral presentation must be structured. A structured presentation should be conducted as follows:

- Begin with an engaging introduction to capture the audience's interest from the outset. The introduction should be delivered in short and effective sentences.
- Acknowledge cultural norms and environmental etiquette by greeting the audience and seeking permission from the professors regarding the presentation topic (addressing the audience and professors briefly, without exaggeration or flattery).
- Provide a brief self-introduction
- Present the main title and key subheadings as they appear on the slides.
- Clearly outline the scope and limitations of the topic.
- Briefly review previous work on the topic, potential opportunities, and challenges.
- Present the main content in well-defined sections, starting with concepts familiar to the audience and gradually explaining foundational ideas (each section should be of appropriate duration).
- Maintain a logical sequence and timing throughout the presentation.
- Provide stage-wise conclusions from each part of the discussion.
- Deliver a final summary and necessary conclusions upon completing all sections.
- Refer to the sources studied
- Respond appropriately to questions from the audience.
- Express gratitude to the audience, especially to those who asked questions and participated.

Characteristics of the Presenter:

An effective oral presenter should possess the following characteristics:

- Professional appearance that aligns with societal norms
- Focused thought and mental clarity
- Approachability, patience, and perseverance
- The ability to capture the audience's attention
- Proficiency in managing the presentation space and controlling the atmosphere of the presentation
- Politeness in speech and behavior
- The impact of eye contact
- The persuasive power of speech
- Mental agility and quickness of response
- Composure and emotional self-regulation

- The capability to establish a lively and dynamic in-person interaction

Presentation Style of the Presenter

The presenter must deliver the report according to the following method. It is important to note that this task is highly delicate and sensitive. The presenter should strive to minimize mistakes, both in speech and behavior, in order to achieve an effective and successful presentation, especially if they intend for their oral presentation to be persuasive.

Before commencing the speech, the presenter should take a moment to calmly survey the audience. It is essential to adhere to the principle of vocal variability, alternating between soft and emphatic tones as appropriate. The presenter's voice should be suited to the topic at hand, as well as the location and the number of the audience .

The presenter should utilize rhythm, melody, and tone in a manner that is fitting for the occasion. Their speech should be clear and fluid, and it should be characterized by concise statements that are effective and imbued with emotion.

The presenter should avoid reliance on catchphrases and strive to incorporate diverse styles of speaking whenever possible.

The presenter should adhere to the proposed timeline and utilize time effectively.

They should avoid digressions and excessive elaboration, while incorporating relevant emphases and judicious repetitions.

The presenter should strategically employ pauses and silence as opportunities to enhance impact on the audience.

It is essential to avoid ambiguous language and expressions.

At every moment, the presenter should endeavor to understand the status of the audience, specifically their level of engagement, interest, and attentiveness to listening and following the content. Additionally, they should utilize eye contact as a means of establishing dynamic communication with the audience, ensuring equitable distribution of attention among all attendees.

The presenter should utilize body movements, particularly the hands, appropriately and sufficiently. They should avoid remaining stationary and immobile in one location.

They should encourage audience participation whenever possible during the presentation. Occasionally, and as appropriate to the context and subject matter, they should soften their words while respecting cultural and social norms.

They should refrain from arrogance, pride, ostentation, and superiority. They should maintain humility, but not in a way that appears contrived or stems from weakness.

They should employ audio-visual aids effectively and in a timely manner.

Throughout the presentation, they should strive to demonstrate genuine care for the audience by exhibiting sincerity and authenticity.

They should speak with confidence and explicitly communicate any doubts as they arise.

Course Name: "Implementation and evaluation of exercises (drills) in emergencies and disasters."	Course code: 18
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1 Theoretical - 1 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To Familiarize students with the role and significance of exercises (drills) in preparedness, as well as the design, implementation, and evaluation of such exercises for readiness in responding to emergencies and disasters across various organizations	
Course Description: In this course, the significance of exercises (drills) in preparing communities and healthcare organizations will be discussed, alongside the methods of designing, planning, implementing, and evaluating these exercises and drills in emergencies and disasters.	
Main Topics: (17 hours Theoretical- 34 hours Practical) Significance and necessity of conducting exercises, objectives of exercise implementation, types of exercise and drills, principles and fundamentals of exercise planning within the health sector, process of exercise planning (Forming a planning team, formulating goals, planning details, assigning the roles of different departments and individuals, etc.), scenario development, objectives and stages of exercises, formulation of drill implementation plans, establishment of evaluation protocols for drills (pre-drill activities, evaluation questions, evaluation methods, and the selection of evaluation criteria), methods of coordination both within and between sectors in drills, securing financial resources, various types of exercises, their characteristics, advantages and disadvantages, and special considerations in their planning and implementation, role of simulation in training for disaster and emergency management, documentation of actions, documentation and preparation of reports on exercises, and practical implementation of all the aforementioned topics.	
References: 1-Public health emergency exercise toolkit. Columbia University. Last edition 2- Homeland Security. Exercise and evaluation program. Last edition	

Evaluation Method:

- Final exam 50%
- Class activity 20%
- Development of a scenario and planning for the implementation of a training program for a hypothetical hospital or healthcare center 30%

Course Name: Psychosocial Health in Emergencies and Disasters	Course code: 19
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the psychosocial effects of various hazards and the strategies for managing these effects	
Course Description: In this course, the psychosocial effects of different types of hazards, effective management preparedness methods, and intervention programs will be discussed.	
Main Topics: (26 hours Theoretical-17 hours Practical) Fundamentals, concepts, and significance of mental health in disasters; common psychological disorders resulting from disasters and their symptoms and prevalence; phases of psychological and behavioral reactions in affected individuals (children and adults); factors contributing to psychological vulnerability and identification of high-risk groups; initial assessment and prioritization of individuals experiencing psychological difficulties; principles of psychological first aid and social support; intervention programs; grief and its stages; strategies for addressing grief in children and adults; provision of psychosocial services in Iran; psychosocial support for emergency response personnel; substance use in emergencies and disasters and the management of this phenomenon; and practical exercises encompassing all of the aforementioned topics.	
References: 1. Yasemi, M.T., Ismaili, A. et al. Psychosocial Support in Disasters and Emergencies (Educational Text for Managers and Experts). Ministry of Health. Latest Edition. 2. Ardalan, A. et al. National public health disaster and emergency operations plan. Raz Nahan Publications. Last edition 3. Psychosocial consensus of disasters, prevention and treatment. WHO	
Evaluation Method: - Final exam 50% - Selection of one of the psychosocial effects of disasters and presentation of a 1.5-hour seminar on the subject. 30% - Class activity 20%	

Course Name: Management of Public and International Donations in Disasters and Emergencies	Course code: 20
Prerequisite or Presented Simultaneously: None	
Course Credits: 1 (0.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical- Practical	
Overall Course Objective: To familiarize students with the significance and methods of collecting and managing public donations and international aid during disasters and emergencies, and the roles and responsibilities of international organizations in this regard.	
Course Description: In this course, the significance and necessity of collecting public donations and seeking international aid, the various forms of assistance, the methods of engagement with international organizations, as well as the types of humanitarian actions and the principles governing such initiatives will be discussed.	
Main Topics: (9 hours Theoretical- 17 hours Practical) -Necessity and significance of utilizing public donations and international aid -Various types of gifts and contributions, as well as methods for their collection and distribution -Roles and responsibilities of domestic and international organizations in this context -Regulations, frameworks, principles, and fundamentals for the collection of international humanitarian donations -Standards and skills required for attracting and managing international humanitarian aid -Coordination and inter-organizational communication -Sensitivities related to the collection of donations and contributions -Challenges and shortcomings associated with public and international donations and contributions -Strategies for coordinating and requesting assistance from relevant organizations -Strategies for coordinating the delivery of humanitarian aid	

- Experiences in the collection of international donations and contributions in recent disasters in the country

References:

- 1- Birch and Miller. Humanitarian assistance: standards, skills, training and experiences BMJ. Last اولش ناقصه edition
- ٢ Related articles as per the relevant professor's recommendation

Evaluation Method:

- Final exam 50%
- Class activity 30%
- Choosing a disaster which has occurred in the world and analyzing humanitarian support for it 20%

Course Name: Principles and Fundamentals of Risk Communication in Disasters and Emergencies	Course code: 21
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1 Theoretical - 1 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the principles, concepts, and applications of media for information dissemination during various stages of disasters and learning how to interact with the media, information management, and concepts and generalities of geographic information systems.	
Course Description: In this course, the importance of information dissemination during disasters and emergencies, the principles and fundamentals of information dissemination as well as interaction with the media in such situations, the geographic information system, and its application in disaster management will be discussed, and students will acquire the skills necessary to utilize the relevant software.	
Main Topics: (17 hours Theoretical- 34 hours Practical) Principles, generalities, and history of information dissemination in disasters and emergencies; significance of information dissemination during disasters; various types of print and broadcast media distinctions between local, national, and international media; media formats; barriers and advantages of media; challenges in media management; public relations officers; principles of organizing press ;conferences and public meetings along with practical exercises; interview techniques and practice conducting media tours and associated practice; challenges in managing public information; types of media and communication equipment with practical training; primary pathways for information dissemination and news coverage during crises; fundamentals of Arc GIS and its applications in disaster .management	
References: 1- Koenig KL, Schultz CH. Disaster medicine: Comprehensive principles and practices. Cambridge univ .pr-Last edition 2- Gregory RC, Philip DA, Erik ADH, Robert GD et al. Disaster Medicine, Mosby Elsevier. Last .edition .Lai PC, Ann SFM. GIS for health and the environment. Springer. Last edition - Harnessing information and technology for disaster management, the global disaster information net - .work. Last edition	

5- Hoseinzadeh SR., & Bidkhori A. Geographic Information Systems (GIS). Mashhad: Jahad Daneshgahi Publications. Last edition.

Evaluation Method:

- Final exam 50%
- Selecting a relevant topic and giving a lecture in class 10%
- Criticism of the performance of the information sector in a crisis 10%
- Proficiency test of utilizing Arc GIS software 30%

Course Name: Health services in mass gatherings and complex crises	Course code: 22
Prerequisite or Presented Simultaneously: None	
Course Credits: 1 (0.5 Theoretical - 0.5 practical)	
Course Type: Theoretical- Practical	
Overall Course Objective: To familiarize students with the prevailing conditions in complex emergencies and mass gatherings, the management of health and medical aspects of these situations, and the coordination between military and civilian organizations.	
Course Description: In this course, the characteristics of complex emergencies, mass gatherings and the management of health-related aspects of these emergencies are discussed, along with the coordination among representatives from various organizations, including national governmental and non-governmental organizations, military organizations, and international organizations	
Main Topics: (9 hours Theoretical- 17 hours Practical) Definition of complex emergencies; characteristics and differences between complex emergencies and other emergencies; existing national and international laws concerning assistance in these cases; principles and rules of the Red Cross regarding internal and external refugees, migrants, and prisoners of war; how to coordinate and dispatch to provide assistance to people in complex emergencies; principles and foundations of decision-making and behavior in complex situations and their practice; principles and foundations of setting up and managing camps with an emphasis on health management in camps and their practice; how to assess the health status and meet environmental health needs such as drinking water, defecation, etc.; nutrition in camps and their practice; how to finance in complex situations; logistics management and maintaining employee safety; importance of mass gatherings; types of mass gatherings and their characteristics; health effects of mass gatherings; role of security, cultural, social, and contextual factors in the health effects of mass gatherings; psychological effects of mass gatherings and their management; new technologies and their application in planning and managing mass gatherings.	
References:	

- 1- Koenig KL, Schultz CH. Disaster medicine: Comprehensive principles and practices. Cambridge univ pr. Last edition.
- 2- Gregory RC, Philip DA, Erik ADH, Robert GD et al. Disaster Medicine. Mosby Elsevier. Last edition.
- 3- World Health Organization. (2015). Public Health for Mass Gatherings: Key Considerations. Geneva: WHO.
- 4- World Health Organization. (2008). Communicable disease alert and response for mass gatherings: key considerations. Geneva: WHO.
- 5- International Health Regulations (2005). WHO.
- 6- Mass Gatherings and Public Health: The experience of the Athens 2004 Olympic Games.

Evaluation Method:

- Final exam 50%
- Class activity 20%
- Selecting a complex emergency case and carrying out healthcare planning for it 30%

Course Name: Education in Emergencies and Disasters	Course code: 23
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the significance of education in influencing behavioral change and promoting positive behaviors within the community in order to reduce vulnerability factors and enhance resilience in the face of disasters, and to familiarize them with various educational methods for instructing different levels of society regarding health in the context of emergencies and disaster.	
Course Description: In this course, the significance, principles, and philosophy of education and learning in enhancing health-promoting behaviors among members of society will be examined. The aim is for students to understand the role and necessity of education in improving community health and to foster an awareness of the factors influencing the formation and change of behaviors at the individual, group, and societal levels.	
Main Topics: (26 hours Theoretical- 17 hours Practical) Definitions and concepts of health education in disasters (awareness, attitude, belief, behavior, motivation, perception, etc.); definitions and concepts of health promotion (support, participation, collaboration, empowerment, accountability, lifestyle improvement, etc.); core and key concepts in educational planning; educational cycle; development of curricula; general and specific objectives; various domains of learning; types of teaching methods (applications, disadvantages, and advantages); historical overview of disaster education programs around the world and in Iran; theoretical models of disaster education; designing educational programs for different phases of the disaster cycle; principles of selecting educational methods (applications, disadvantages, and advantages); principles of implementing educational programs; evaluation of educational programs; principles of preparing various types of educational content and their advantages and disadvantages; training of the general public; training of first responders; training of volunteers; training of medical groups; participation in educational programs; university disaster education programs; principles of exercise design and implementation; principles of evaluation and documentation of lessons learned from exercises; organization of practical exercises across various groups; practical implementation of all the aforementioned topics.	
References: 1- Koenig KL, Schultz CH. Disaster medicine: Comprehensive principles and practices. Cambridge univ	

pr. Last edition.

2- Gregory RC, Philip DA, Erik ADH, Robert GD et al. Disaster Medicine. Mosby Elsevier. Last edition.

3- Donald A. Health education: A cognitive behavioral approach. Last edition.

4- Keyser BB, Marrow MJ, Deyle K. Ogletree R. Practicing the application of health skills and competencies. Jones & Bartlett Publishers. Last edition.

5- Homeland Security. Exercise and evaluation program. Last edition.

6- Public health emergency exercise toolkit. Columbia University.

Evaluation Method:

- Final exam 50%

- Selecting a target group and designing an educational program to enhance the awareness of the chosen group.

- Class activity 20%

Course Name: Emergency Environmental Health Measures in Incidents and Disasters	Course code: 24
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: At the end of this course, students will be acquainted with the significance of environmental factors in human health, methods for controlling these factors, and emergency environmental health measures in disaster-affected communities.	
Course Description: In this course, the following topics will be discussed: methods of providing safe drinking water, collection and disposal of feces, waste and wastewater management, ensuring fresh and clean air, corpse management, and all environmental factors influencing health.	
Main Topics: (26 hours Theoretical - 17 hours Practical) • Rapid assessment of damage to the infrastructure for water supply, treatment, and distribution and other environmental health infrastructures • Prioritization of needs, standards, and types of sanitation facilities • Applications and criteria for selecting appropriate sanitation facilities • Common methods of waste collection and disposal, as well as their advantages and disadvantages • Importance and management of human corpses and animal carcasses • Methods of sanitary wastewater collection and disposal in emergencies and disasters • Methods of water provision in emergency conditions • Food hygiene • Standards and conditions for food supply, storage, and distribution sites • Control of vectors and rodents • Standards for setting up camps and emergency accommodation • Management of environmental factors and safety in camps • Environmental health measures in chemical and radiological incidents • Methods of protecting individuals during disasters and emergencies • Sphere standards	
References: 1- Harvey, P., Begheri, S., & Reed, B. (Translators: Nadafi, K., Ponssi, B., Taheri, T.). Environmental Sanitation in Emergency Conditions. Nes Publishing. Last Edition. 2- Asl Hashemi, A. Health Measures in Emergency Conditions. Akhtar Publishing. Last Edition.	

۳- World Health Organization. Environment health in emergencies and disasters. Edited by Wisner J and

. Adams J. ۲۰۰۲. WHO

Environmental Protection Agency-۴ (EPA). Planning for an emergency drinking water. ۲۰۱۱.

De veer T. Water supply in disasters and emergencies. Available from -۵:

http://www.samsamwater.com/library/TP۳۰۲۳_Water_supply_in_disasters_and_emergencies.pdf

Student Evaluation Method:

- Final exam 50%
- Class activity 20%
- Selecting a hazard, identifying its environmental health impacts, and planning to control environmental factors influencing community health following the chosen hazard 30%

Course Name: Management of Infectious Diseases in Emergencies and Disasters	Course code: 25
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with common infectious diseases following disasters and methods of their surveillance and control, as well as an introduction to bioterrorism and its countermeasures.	
Course Description: In this course, the signs, modes of transmission, prevention, and control of various prevalent infectious diseases following disasters and bioterrorism will be addressed, along with strategies for prevention and response.	
Main Topics: (26 hours Theoretical- 17 hours Practical) • Rapid assessment (objectives, evaluation team and its composition, methods for data collection and their practical implementation, sampling methods and their practice, required data and data analysis) • Prevention of infectious diseases in disasters and emergencies (the role and importance of shelter, water, wastewater, vectors, food, and nutrition in preventing non-communicable diseases) • Vaccination and immunization programs in disasters and their practice • Design and implementation of a care system for infectious diseases • Diagnosis and control of disease outbreaks • Common diseases following disasters and emergencies, and methods of prevention, diagnosis, and treatment • Pathophysiology of common diseases in disasters (water and foodborne diseases including cholera, typhoid, salmonella, various diarrheal diseases and food poisoning, shigellosis; airborne diseases including influenza, SARS, Ebola, tuberculosis; vector-borne diseases including Lyme disease, malaria, sandfly fever, plague, leishmaniasis; blood-borne diseases including HIV/AIDS, various hepatitis types; sexually transmitted diseases including genital warts, syphilis, HIV/AIDS; diseases transmitted by animal bites such as rabies) • Emerging and re-emerging infections	
References: 1-Connely MA. Communicable diseases control in emergencies. Last edition 2- .Koenig KL, Schultz CH. Disaster medicine: Comprehensive principles and practices .Cambridge univ pr. Last edition 3- Gregory RC ,Philip DA, Erik ADH, Robert GD et al. Disaster Medicine. Mosby Elsevier.	

Last edition.

4- Hatami, H. Clinical Epidemiology and Control of Bioterrorism-Related Diseases. Last edition.

Student Evaluation Method:

- Final exam 50%
- Class activity 20%
- Selection of a common disease following disasters, examination of its symptoms, prevention methods, diagnosis, and treatment, management actions for controlling the disease during different phases of the disaster, as well as delivering an oral report in class and submitting a written report to the relevant instructor 30%

Course Name: Nutrition in Disasters and Emergencies	Course code: 26
Prerequisite or Presented Simultaneously: None	
Course Credits: 2	
Course Type: Theoretical	
Overall Course Objective: It is expected that by the end of this course, students will be familiar with the principles of nutrition science and will understand the role of nutrients in promoting health and reducing the complications arising from nutritional deficiencies. Additionally, students will learn about the impact of nutritional deficiencies in society and vulnerable groups on the progression of harm caused by these deficiencies during disasters, as well as strategies to mitigate disaster-related damage through appropriate nutritional status. They will also become acquainted with various food rations and nutritional interventions during disasters and crises. Overall, it is anticipated that by the end of this course, students will have a scientific perspective on the importance of nutrition in crisis management.	
Course Description and Main Topics: (26 hours Theoretical) • Familiarity with the principles of nutrition, including energy metabolism, macronutrients, micronutrients, required amounts, and a healthy diet. • Understanding the concept of food security in society, especially during disasters and crises. • Malnutrition, including the definition and types of malnutrition, micronutrient deficiencies, methods for measuring malnutrition in individuals and society during crisis and disaster conditions, vulnerable groups and malnutrition in these groups, as well as the impact of nutritional deficiencies on the progression of damage caused by disasters. • Familiarity with various food rations and nutritional interventions during disasters and crises. • Interdepartmental cooperation and coordination in nutritional care during disasters and crises, and familiarity with organizations providing nutritional services during disasters and crises.	
References: 1- Food and Agriculture Organization of the United Nations. Protecting and Promoting Good Recovery in Crisis and Recovery: Resource Guide. Last edition. 2- Community Nutrition: Planning Health Promotion and Disease Prevention, By Illinois State University Nweze Nnakwe. Nweze Nnakwe. Last edition. 3- Edelstein S. Managing Food and Nutrition Services for the Culinary, Hospitality, and Nutrition Services. Jones and Bartlett publishers. Last edition.	
Student Evaluation Method: - Final exam 80%	

- Class activity 20%

Course Name: Reproductive Health in Disasters and Emergencies	Course code: 27
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the management of health and the provision of healthcare services to mothers, children, adolescents, and vulnerable groups during disasters and emergencies.	
Course Description: This course discusses the management of health for infants, children, adolescents, and mothers. Students will learn about the care programs for these groups during disasters and emergencies.	
Main Topics: (26 hours Theoretical- 17 hours Practical) • Introduction • Causes of Vulnerability of Women, Children, and Adolescents in Disasters • Effects of Disasters on the Health of Mothers, Children, and Adolescents • Care for Pregnant Mothers • Hygienic Childbirth (Safe Delivery) • Postpartum Care • Family Planning • Prevention of Unwanted Pregnancies and Induced Abortions in Women and Adolescents • Neonatal Care • Child Care • Child Nutrition • Nutritional Supplements • Diarrheal Diseases in Children • Acute Respiratory Infections in Children • Support and Care for Adolescents • Prevention and Treatment of Sexually Transmitted Infections (STIs) and HIV/AIDS in Women and Adolescents • Follow-up and Support for Victims of Violence and Sexual Assault • MISP • Practical Work on all the mentioned topics	
References: 1. Safarieh H, Khalili G, Abdollahi Sh, Shahrokhi A. Reproductive Health in Disasters. Last edition 2. Ardalan, A. et al. National public health disaster and emergency operations plan. Raz Nahan Publications. Last edition 3. The white ribbon alliance. Women and Infants Service Package (WISP). Last edition	

4. Reproductive health in refugee situation: an interagency field manual. Last edition.

5. Minimum Initial Service Package (MISP) for Reproductive Health in Crisis Situations. Last edition.

Student Evaluation Method:

- Final exam 50%

- Class activity 50%

Course Name: Management of Non-Communicable and Chronic Diseases in Disasters and Emergencies	Course code: 28
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with common non-communicable diseases and their management during disasters and emergencies.	
Course Description: This course will discuss various common non-communicable diseases in the country and their management in emergency situations, as well as the necessary services for vulnerable groups.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Principles and Fundamentals of Epidemiology of Non-Communicable Diseases, Epidemiology and Management: - Cardiovascular Diseases - Hypertension - Heart Attacks - Respiratory Diseases - Asthma - Skin Diseases - Types of Wounds - Skin Allergies - Endocrine Metabolic Diseases - Diabetes - Goiter	

Kidney Diseases

Renal Failure

Kidney Stones

Urinary Tract Obstructions

Neurological and Mental Diseases

Stress

Depression

Hysterical Attacks

Gastrointestinal Diseases

Stomach Ulcers

Colitis

Types of Cancers:

Lung Cancer, Stomach Cancer, Pancreatic Cancer, Small Intestinal Cancer, Colorectal Cancer, Esophageal Cancer, Uterine Cancer, Breast Cancer

References:

- 1- Ardalan, A. et al. National public health disaster and emergency operations plan. Raz Nahan Publications. Last edition.
- 2- National Guidelines for the Aforementioned Diseases.

Student Evaluation Method:

- Final Exam 50%
- Class Activity 30%
- Selection of a non-Communicable disease and development of an operational plan for its management in disasters and emergencies 20%

Course Name: Primary Clinical Services in Emergencies and Disasters	Course code: 29
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with clinical first aid and services during disasters and emergencies.	
Course Description: This course will discuss the primary clinical services required for victims and injured individuals during disasters and how to provide them.	
Main Topics: (26 hours Theoretical- 17 hours Practical) • Principles and Fundamentals of Nursing • Types of Emergencies • Triage and Its Types • Initial Assessment of Accident Victims • CPR (Basic and Advanced) • Shock and Its Types • Initial Actions in Response to Shock • Burns • Care for Trauma Patients • Care for Patients with Crush Syndrome • Care for Bleeding and Shock • Care for Victims of Chemical, Microbial, and Radiation Incidents • Nursing Management Services • Incident Command and the Role of Nurses • Role of Nurses in Preparedness, Prevention, Damage Reduction, Response, and Recovery from Disasters and Emergencies • Practical Training on All Mentioned Topics	
References: 1- Daily E, R Powers, et al., International Disaster Nursing: Cambridge Univ Pr. Last edition 2- Adelman DS, Legg TJ. Disaster nursing: A handbook for practice. Jones and Bartlet. Canada. Last edition	
Student Evaluation Method: - Final exam (Written) 50% - Practical Test of Nursing Skills 50%	

Course Name: People-Centered Management in Emergencies and Disasters	Course code: 30
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the role and importance of people and society in disaster risk management and reduction, and to develop skills for working with local people and communities for disaster risk management and reduction.	
Course Description: This course discusses the principles and fundamentals of people-centered disaster management, and it addresses how to actively engage people, plan for risk reduction, and implement risk reduction programs with and for them. The course also explores successful global experiences in people-centered disaster management, and students will acquire skills in planning and managing people-centered disaster management.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Basic Concepts (Management, Risk, People-Centered, Community, Society, Institutions, Organizations, Culture, Customs, Traditions, etc.) • Background and Importance of People-Centered Disaster Risk Management (Causes of Importance and Process) • Methods and Tools for Participatory Risk Assessment in the Community • Understanding Risk • Risk Assessment in Local Communities (Designing and Implementing Programs for Hazard Identification and Analysis, and Designing and Implementing Programs for Assessing Community Vulnerability and Capacity) • Community Participatory Risk Assessment Tools • Community-Based Risk Maps • Organizing Local Communities • Training and Drills in Local Communities • Designing and Establishing Community-Based Early Warning Centers • Role of Social and Cultural Characteristics of Local Communities in Disaster Risk Management and Reduction • Non-Governmental Organizations (NGOs) and Their Role in Disaster Risk Management and Reduction • Strategies for Engaging Community Participation • Role of Cultural and Social Characteristics in Local Planning • Urban and Rural Local Communities and Their Role in Reducing Potential Risks • Mobilizing and Managing People-Centered Donations in Disasters	

- People-Centered Call to Action and Volunteer Management
- Challenges in Implementing People-Centered Disaster Programs
- History of Implementing People-Centered Programs Worldwide
- Monitoring and Evaluating People-Centered Programs
- People-Centered Early Warning Systems
- Community Training and Drills
- Organizing Volunteers and NGOs
- Developing a People-Centered Operational Plan for Disaster Risk Reduction, or Writing a Project on Community Health during Crises or Community Education in the Face of Disaster Risk
- Practice in the Following Areas: Community-Based Facilitation, Building Trust, Assessing Local Resources, Needs Assessment and Prioritization, Planning, and Resource Mobilization

References:

- 1- Asian disaster preparedness center (Adpc). Community based disaster risk management. Last edition
- 2- Asian disaster preparedness center (Adpc). Community based disaster risk management for local authorities. Last edition
- 3- Saied Noori Neshat et al., Community-Based Empowerment, Volume I and II, Bargh-e-Zeitoun Publications, Tehran, Last edition
- 4- Katayoun Jahangiri, Gholamreza Pourheidari. Fundamentals of Community-Based Crisis Management, Iran Helal Ahmar University of Applied Science and Technology. Last edition

Student Evaluation Method:

- Final Exam 50%
- Mid-term Exam 20%
- Class Activity 30% (Developing a people-centered risk management plan for a selected village or community)

Course Name: Protection and Safety of Personnel in Disasters and Emergencies	Course code: 31
Prerequisite or Presented Simultaneously: None	
Course Credits: 1 (0.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the protection of emergency personnel during disasters and emergencies and the management of injured personnel.	
Course Description: This course discusses topics related to the various hazards threatening the health of emergency personnel during disasters, methods of prevention, and the approaches for treatment and management of injured individuals.	
Main Topics: (9 hours Theoretical - 17 hours Practical) • Introduction and History • Factors Affecting Staff Vulnerability • Types of Hazards Threatening Staff Health • Identification and Prevention Methods for Emergencies • Protection Methods for Individuals Against Air Pollutants, Floods, Storms, Fires and Explosions, Biological Hazards, Radiation, Electrocution and Lightning, Landslides and Earth Collapses • Protection in Mines and Underground Work • Personal Protective Equipment (PPE) and Its Types • Roles and Responsibilities of Individuals and Organizations in Staff Protection • Scene and Field Safety in Disasters and Emergencies • Staff Safety in Mass Casualty Incidents and Road Accidents • Levels of PPE • PPE for Biological Hazards • PPE for Handling Hazardous Materials • PPE in Fires • Personnel Decontamination • Challenges in Using Protective Equipment • Training and Educating Personnel on Using PPE • Support for Injured Staff • Psychosocial Support for Personnel and Their Families • Health Management of the Volunteers • Practical Work with All Types of Discussed PPE	
References: 1- Koenig KL, Schultz CH. Disaster medicine: Comprehensive principles and practices. Cambridge univ. pr. Last edition	

- 2- Gregory RC, Philip DA, Erik ADH. Robert GD et al. Disaster Medicine. Mosby Elsevier. Last edition
- 3- Disaster and Development: an Occupational Perspective, 1e, Nancy Rushford, Kerry Thomas. Last edition
- 4- Working Disasters: The Politics of Recognition and Response (Work, Health and Environment) (Work. Health and Environment...) by Erie Tucker. Last edition
- 5- Hatami H. Emerging and Re-Emerging Infectious Diseases and Health of Medical Professions. Nashre-e Seda Publishing Center. Last edition
- 6- Zia Zarifi A, Yeganeh B, Goya M M. Guidelines for Protecting Medical Center Staff against Diseases. Last edition
- 7- National Guidelines for the Care System of Hospital Infections. Last edition
- 8- Principles of Occupational Safety and Health in Hospitals: Guidelines for Protecting Healthcare Center Staff. Translated by Negar Darvishzadeh. Last edition
- 9- Health and Safety in Construction: Safety Association of Ontario, Canada. Translated by Ardeshir Atyabi. Published by Jooybar. Last edition
- 10- Electrical Safety: Personal Protection, Accident Prevention, Equipment. Translated by Mohammad Tolou Khorasanian. Last edition
- 11- Safety in Industry: "Risk Analysis, Work-Related Accidents, Building and Elevator Safety," by Seyed Jalil Mir Mohammadi, Gholamhossein Halvani. Published by Asar Sobhan. Last edition
- 12- Safety and Health for Engineers (Safety in Industry). Author: Roger Brauer. Translated by Gholamhossein Halvani. Last edition
- 13- Safety in Mines (Aligned with the Safety Course Syllabus for Occupational Health Engineering). Authors: Hossein Ebrahimi, Amin Mirzakhani, Hossein Amjad. Published by Fanavaran. Last edition

Student Evaluation Method:

- Final Exam 50%
- Developing Educational Materials for Emergency Personnel for Self-Protection in a Selected Hazard 30%
- Class Activity 20%

Course Name: Qualitative Research Methodology	Course code: 32
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the principles, fundamentals, and various methods of qualitative research and its application in health studies during disasters and emergencies.	
Course Description: This course discusses the principles and fundamentals of qualitative studies, various types of qualitative studies, and how to design and conduct them. Students will acquire the skills to design and conduct various types of qualitative studies in areas related to health during disasters and emergencies.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Overview of Qualitative Research Methods and Introduction to Various Approaches • Overview of Phenomenological Research Methods • Data Collection Methods in Phenomenological Research • Data Analysis Methods in Phenomenological Research • Theory and Theory Building • Overview of Grounded Theory Research Method • Data Collection and Analysis Methods in Grounded Theory • Overview of Action Research Methods • Practical Steps in Action Research Methods • Writing and Reporting Qualitative Research • Ethical Considerations in Qualitative Research	
References: 1- Sanei A, & Nikbakht Nasrabadi A. Qualitative Research Methodology in Medical Sciences, Tehran: Baraye Farda Publications. Last Edition. 2- Salsali M, Parvizi S, and Adib M. Qualitative Research Methods. Tehran: Nashr-e-Bashari, Last Edition. 3- Pope C. Mays N. Qualitative research in health care. London: BMJ. Last edition. 4- Basset C. Qualitative research in health care. London & Philadelphia: Whurr publishers, Last edition. 5- Chiovitti RF. Piran N. Rigour and grounded theory research. Journal of Advanced Nursing. 2003; 44(4), 427-435. 6- Cutcliffe JR. Methodological issues in grounded theory. Journal of Advaned Nursing, 2000; 1(6):1476-1484. 7- Eaves YD. (2001) A synthesis technique for grounded theory data analysis. Journal of Advanced Nursing. 2001: 35(5): 645-663. 8- Lomborg K, Kirkeveld M. Truth and validity in grounded theory-a reconsidered realist interpretation of the criteria: fit, work, televance and modifiability Nursing Philosophy. 2003; 4(3):189-200.	

9- McCallin A. Designing a grounded theory study :some Practicalities. Nursing in Critical Care. 2003; 8(5): 203-208.

Student Evaluation Method:

- Final Exam 50%
- Class Activity 20%
- Developing a qualitative research proposal and conducting it 30%

Course Name: Results-Based Planning and Management	Course code: 33
Prerequisite or Presented Simultaneously: None	
Course Credits: 2 (1.5 Theoretical - 0.5 Practical)	
Course Type: Theoretical-Practical	
Overall Course Objective: To familiarize students with the results-based management approach, principles and concepts of planning, and their application in planning for healthcare facilities during disasters.	
Course Description: This course discusses the principles and fundamentals of the results-based management approach and how to apply these principles in practice. It also covers the principles and fundamentals of planning and various planning methods in disasters. Students will acquire skills in developing various plans for healthcare facilities during disasters.	
Main Topics: (26 hours Theoretical- 17 hours Practical) - Generalities and Definitions • Principles of Results-Based Management • Differences and Similarities of Results-Based Management Approach with Other Management Approaches • Results Chain • Relationship between Components of the Results Chain • Methods for Developing the Results Chain • Understanding Program Beneficiaries • Concepts of Assumption and Risk • Conditional Logical Model • Risk Management • Stages of Risk Management • Performance Measurement and Its Framework • Performance Measurement Indicators • Applications of Performance Measurement Framework Information • Operational Planning • Logical Framework and Its Applications • Structure of the Logical Framework • Methods for Developing the Logical Framework • Institutionalizing Results-Based Management in Organizations and Its Challenges • Definitions and Principles of Planning • Theories and Types of Planning • Stages of Planning • Needs Assessment • Human Resource Planning	

- Quantitative Methods in Planning
- Strategic Planning
- Disaster Planning for Hospitals/Healthcare Facilities
- Emergency Planning for Hospitals/Healthcare Facilities
- Operational Emergency Planning for Hospitals/Healthcare Facilities
- Contingency Planning for Hospitals/Healthcare Facilities
- Preparedness Planning for Hospitals/Healthcare Facilities
- Response Planning for Hospitals/Healthcare Facilities
- Recovery Planning for Hospitals/Healthcare Facilities
- Continuity Planning for Hospitals/Healthcare Facilities
- Practical Implementation of All the Above Planning Types in Healthcare Settings

References:

- 1- Ardalan, A. Guide to Results-Based Management for Public Health Planning. Last edition
- 2- Asefzadeh S, Reza Pour A. Health and Medical Planning. Qazvin University of Medical Sciences, Qazvin. Last edition
3. Negooei Moghadam M, Beheshti Far, M. Planning in Health Service Delivery. Last edition
- 4- Strategic Planning in Health Organizations. Dr. Behzad Damari. Last edition
- 5- Strategic Planning. Dr. Maleki and Dr. Tabibi. Last edition
- 6- International Federation of Red Cross and Red Crescent pSocieties (IFRC). Contingency planning guide. Available from: www.ifrc.org. Last edition
- 7- UNDP (India). Guidelines for Hospital emergency preparedness planning. Available from: www.undp.org/content/.../guidelines_hospital_emergency.pdf. Last edition
- 8- Daily, E. R. Powers, et al., International Disaster Nursing: Cambridge Univ Pr. Last edition
- 9- Federal emergency management agency (FEMA). Emergency planning. Available from: www.fema.gov. Last edition
- 10- UNDP. Result Based Management. Last edition

Student Evaluation Method:

- Final Exam 50%
- Class Activity 20%
- Developing one of the plans discussed in class for a hypothetical healthcare facility 30%

Chapter Four

Program Standards for the Master's Degree in Disaster and Emergency Health

Standards for Educational Programs of the Disciplines under the Higher Council for Medical Education Planning

The following are the minimum subjects that must be reviewed by evaluators in the process of assessing educational programs:

It is essential that the program have the following general educational facilities and spaces: a specialized classroom, a conference hall, a specialized bookshelf within the department, a public library, a computer center equipped with high-speed internet and specialized software, a specialized website for the department, and an educational archiving system.

It is essential that the educational department provide the necessary specialized spaces, including specialized laboratories and hospital and social settings, in accordance with the provisions outlined in the educational program.

The educational department must provide the necessary welfare and cultural spaces, including faculty rooms, student rooms, canteens, prayer rooms, dormitories, and cultural and sports facilities.

It is essential that the off-campus rotational training sites be formally approved by the evaluators.

It is crucial that the populations and specific materials needed for training, including patients, active hospital beds, laboratory samples, and necessary food, pharmaceutical, or cosmetic samples, be available to trainees in sufficient quantity and acceptable variety as determined by the evaluators.

It is essential that the necessary capital and consumable equipment listed in the program be made available to the program implementers and that their quality be approved by the evaluators.

The necessary facilities for educational exercises and related research must be available to the faculty and trainees in accordance with the field being evaluated, and this must be approved by the evaluators.

The evaluated educational department must have the necessary faculty members as outlined in the educational program and the resolutions of the Expansion Council, and these documents must be provided to the evaluators.

The educational department must have the trained staff required for training trainees as specified in the educational program.

It is essential that the educational program (Curriculum) be accessible to all stakeholders.

It is essential that all regulations, instructions, guidelines, and educational rules be accessible to all stakeholders, and that trainees be briefed on them at the start of the course, with its documents provided to the evaluators.

The primary educational resources, including books and journals required by trainees and faculty members, must be available on the bookshelves of the educational department.

Trainees must be actively present at their workplace throughout the week according to the number of days specified in the current regulations, performing their duties under the supervision of faculty members or senior trainees, and the department's weekly or monthly schedule must be available.

The content of theoretical class programs must conform to the course schedule outlined in the educational program for at least 80% of the subjects.

It is essential that trainees actively participate in all educational and research programs organized by the department, such as intra-group conferences, seminars, practical works, research projects, and training of lower-level trainees, as per the department's schedule, and that its documents be provided to the evaluators.

The skill acquisition process during the course must meet the relative satisfaction of the trainees and be approved by the evaluators.

The dress code must be communicated to the trainees at the start of the course, and appropriate and evaluator-approved mechanisms must be in place in the department to monitor compliance.

It is essential that trainees be aware of and adhere to the ethical codes outlined in the curriculum, with their adherence being approved by the evaluators.

An educational portfolio must be created for all trainees within the educational department, containing the results of evaluations, certificates of educational activities inside and outside the educational department, commendations, warnings, and other necessary documents.

Trainees must maintain an acceptable logbook that aligns with the general and specific competencies outlined in the evaluated program.

Trainees must complete the necessary specific intervention skills based on the items listed in the program according to the academic semester and record them in their logbooks, obtaining the signatures of supervising professors.

It is essential that trainees continuously complete their logbooks and that they be monitored and supervised by the relevant faculty members, with necessary written feedback provided to trainees.

Trainees must participate in the research programs of the academic group during their course, with documentation available.

According to the academic year, trainees must complete any required units outside the educational department (if any) and obtain certification from the respective field director, with the documentation being made available to the evaluators.

It is essential that interdisciplinary scientific collaborations between the main educational department and other educational departments be pre-arranged and planned, with documentation of these collaborations being accessible.

At least 70% of the educational methods and techniques outlined in the program must be utilized in the teaching process.

Trainees must be evaluated using the methods outlined in the program throughout their course, with documentation provided to the evaluators.

The university or educational centers under evaluation must meet the criteria outlined in the educational program.

Chapter Five

Evaluation of the Educational Program for the Master's Degree in Disaster and Emergency Health

Program Evaluation

Formative Evaluation Method of the Program:

Throughout the implementation of the program, at the end of each academic semester, evaluations will be conducted in the following areas by seeking feedback from all stakeholders (trainees, faculty members, and educational administrators):

- Satisfaction with the educational content
- Satisfaction with the educational methods employed
- Satisfaction with the educational aids used
- Satisfaction with the content and format of the exams
- Satisfaction with the welfare and administrative facilities

Conditions for the Final Evaluation of the Program:

This program will be evaluated under the following conditions:

1. Five years have passed since the implementation of the program.
2. Major technological changes necessitate a program review.
3. Decisions made by the primary policymakers related to the program.

Program Evaluation Indicators:

Indicator	Criterion
Satisfaction level of graduates with the program	80%
Satisfaction level of faculty members with the program	80%
Satisfaction level of health system managers with the program outcomes	75%
The extent to which graduates meet needs and solve health problems	According to evaluators
Quantity and quality of intellectual and research outputs by graduates	According to evaluators

Program Evaluation Method:

- Surveying the faculty members involved in the program, assistants, and graduates using pre-reviewed questionnaires
- Utilizing the existing questionnaires in the evaluation and accreditation unit of the secretariat.

The Entity Responsible for Program Evaluation:

The entity responsible for program evaluation is the Council for the Expansion of Medical Universities, in collaboration with the program development or revision group, other educational secretariats, and other faculty members.