DST114 - OCCUPATIONAL HEALTH AND SAFETY - Kozaklı Meslek Yüksekokulu - Veri Tabanı, Ağ Tasarımı ve Yönetimi Bölümü

General Info

Objectives of the Course

The aim of this course is to provide students of the Digital Health Systems Technician program with fundamental concepts of occupational health and safety, relevant legal regulations, and risk management approaches; and to train technical personnel who are able to identify physical, chemical, biological, ergonomic, and psychosocial risk factors encountered in digital health and hospital environments, analyze occupational accidents and diseases, correctly use personal protective equipment, and conduct risk assessments.

Course Contents

Definition, importance, and historical development of occupational health and safety. Occupational health and safety practices in Türkiye and worldwide. Legal framework of occupational health and safety; responsibilities of employers and employees. Prevention policies and special risk groups. Occupational health and safety organization, duties and responsibilities of workplace physicians, occupational safety specialists, and healthcare personnel. Personal protective equipment and safe working practices in digital health systems. Occupational accidents, accident theories, accident analysis, and post-accident procedures. Occupational diseases, diagnostic and reporting processes. Physical, chemical, biological, ergonomic, and psychosocial risk factors. Fire safety. Working with display screen equipment and ergonomics. Risk assessment processes and risk analysis methods (Matrix, Fine–Kinney, FMEA).

Recommended or Required Reading

İş Sağlığı ve Güvenliği Ders Notu İstanbul Üniversitesi Yayınları

Planned Learning Activities and Teaching Methods

In addition to the lecture method, question–answer sessions, case study analysis, and discussion methods will be used in the course.

Recommended Optional Programme Components

There are no other matters

Presentation Of Course

face to face

Dersi Veren Öğretim Elemanları

Inst. Osman Yanık

Program Outcomes

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1. Defines the fundamental concepts of occupational health and safety, its historical development, and the relevant legislation, and explains them through examples.
2. Distinguishes and classifies the legal duties and responsibilities of employers, employees, and digital health systems technicians through scenario-based examples.
3. Analyzes occupational accidents and occupational diseases within a cause–effect framework, classifies them according to their types, and explains the reporting procedures in the correct sequence.
4. Identifies physical, chemical, biological, ergonomic, and psychosocial risk factors in digital health and hospital environment examples and matches them with appropriate control measures.
5. Selects personal protective equipment (PPE) appropriate to the task performed, uses it correctly, and identifies usage errors.
6. Identifies physical, chemical, biological, ergonomic, and psychosocial risk factors in digital health and hospital environment examples and matches them with appropriate control measures.

Weekly Contents

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
1				Introduction to Occupational Health and Safety and Conceptual Framework Topics Covered: Definition, importance, and historical development of occupational health and safety (globally and in Türkiye), and its strategic context. The foundations of why professionals working in the digital health field should possess an occupational health and safety culture are introduced. Textbook Pages: 1–34	
2				Legal Framework: Employer and Employee Responsibilities Topics Covered: Obligations of employers (organizational structure, establishment of committees, emergency management), workplace health and safety units, and employee responsibilities. The legal rights and responsibilities of technicians are also addressed. Textbook Pages: 35–69	
3				Prevention Policies and Special Risk Groups Topics Covered: Source-based prevention, environmental protection measures, hazardous conditions and behaviors. In addition, groups requiring special policies in working life (women, young workers, and persons with disabilities) are addressed. Textbook Pages: 70–105	

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
4				OHS Organization and Health Workforce Topics Covered: Duties and responsibilities of workplace physicians, occupational safety specialists, and other healthcare personnel. National occupational health and safety institutions (Ministry of Labor and Social Security, Directorate General of Occupational Health and Safety, Social Security Institution). Understanding the occupational health and safety organizational structure in hospital settings. Textbook Pages: 106–133	
5				ersonal Protective Equipment (PPE) Topics Covered: Definition, selection, categorization, and occupational health and safety practices in maintenance and repair activities related to personal protective equipment. Special emphasis is placed on electrical and mechanical protective equipment (e.g., gloves, antistatic footwear) used in the installation and maintenance of digital systems. Textbook Pages: 134–166	
6				Occupational Accidents and Accident Theories Topics Covered: Accident causation models (Domino theory, epidemiological models, and systemic models). The theoretical foundations of the causes of occupational accidents are examined. Textbook Pages: 167–194	
7				Occupational Accident Analysis and Post-Accident Processes Topics Covered: Causes of occupational accidents (human, machine, and	

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
				environmental factors), health outcomes, social impacts, and post-accident notification and reporting processes (Social Security Institution notifications and near-miss incidents). Textbook Pages: 195–224	
8				Exam	
9				Occupational Diseases Topics Covered: Occupational respiratory system diseases (such as silicosis, asbestosis, etc.) and diseases caused by chemical exposure. Textbook Pages: 225–249	
10				Diagnosis and Management of Occupational Diseases Topics Covered: Legal definition of occupational diseases, statutory limitation periods, classification lists, and diagnostic procedures (Occupational Diseases Hospitals). Textbook Pages: 250–270	
11				Physical Risk Factors Topics Covered: This week is one of the most critical for digital health systems technicians. Topics include electromagnetic radiation (ionizing and non-ionizing), noise, vibration, pressure, and thermal comfort. Risks posed by radiation emitted from medical devices and electronic equipment are also addressed. Textbook Pages: 271–336	
12				Chemical Risk Factors and Fire Safety Topics Covered: Classification and storage of chemicals, explosive atmospheres, and fire safety (fire classes and extinguishing methods). Intervention in electrically	

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
				caused fires that may occur in system rooms is also addressed. Textbook Pages: 337–374	
13				Ergonomic Risk Factors Topics Covered: Anthropometry, fatigue, musculoskeletal disorders, and ergonomic risk assessment methods (REBA, RULA, NIOSH). Postural disorders during work with display screen equipment and device assembly are addressed. Textbook Pages: 375–406	
14				Biological and Psychosocial Risk Factors Topics Covered: Biological risks encountered in hospital environments (bacteria, viruses), routes of transmission, and prevention methods. Psychosocial risks such as workplace stress, shift work, and mobbing are also addressed. Textbook Pages: 407–429	
15				Risk Assessment Topics Covered: Stages of risk assessment (hazard identification and risk analysis), control measures, and risk assessment methods (Matrix, Fine–Kinney, FMEA, etc.). This week focuses on applying all the knowledge acquired throughout the semester. Textbook Pages: 430–460	

Workload

Activities	Number	PLEASE SELECT TWO DISTINCT LANGUAGES
Vize	1	1,00
Final	1	1,00
Ders Öncesi Bireysel Çalışma	14	1,00
Ara Sınav Hazırlık	7	1,00
Final Sınavı Hazırlık	14	1,00
Tartışmalı Ders	14	2,00

Assesments

Activities	Weight (%)
Final	60,00
Uygulama / Pratik	40,00