Theoretical and practical course plan form - Ilam University of Medical Sciences

Introduction to the course: computer /Second semester / 2020-2021

School: Health; Ilam University of Medical Sciences Department: Environmental Health

* Name and number of the course:

* Field and degree: Discontinuous bachelor

* Day and time of holding: Saturdays 8 to 10 virtual classes

* Venue: Class 104

* Name of course manager (course instructor): Mostafa Shanbehzadeh

* Prerequisite courses:

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General purpose of the lesson:

• Behavioral goals (behavioral goals have an audience, behavioral verb, degree and criteria and conditions of performance)

A: **General aspects of education**

Scientific and practical knowledge about:

1- General architecture of computer systems, software formats (system and application) and computer hardware platforms (input, output and processing) and other peripherals of computer systems in the form of computer basics (Part 1)

2- Working with general and practical aspects of computer systems (Windows, desktop components and window items)

3- Components and infrastructures of computer and communication networks (types, configurations, architectures, infrastructures, hardware, software and network tools) - with emphasis on the components of health communication networks (such as the National Health Network of Iran) Shams design)

4 - Internet search (in general) such as Internet browsers (search engine and directories) (search settings and search screening with search operators) - with emphasis on keyword searches related to environmental health

5- Working with databases and internet (focusing on environmental health research areas)

6- Working with ICDL applications

7- Application software training (Microsoft software)

B: Specialized educational genies

Scientific and practical knowledge about:

1- Introducing electronic health infrastructures and especially databases on environmental health and environmental safety such as Environmental Health Information System (ENHIS) Environmental Health Information System

2- Introducing the Integrated Health Record (Apple System) or Integrated Health Record (IHR) with emphasis on recording environmental health and environmental safety data

3- Introducing the computer glossary for standardizing the information contents of reporting messages in the field of environmental health

4- Application of information technology and hospital information systems (Hospital Information System) in clinical departments (focus on the relevant departments for each training group), for example, training of computer systems infrastructure of environmental health (Environmental Health Information System) or EHIS (Specialized supplement of paragraph 2).

5- Introducing the EHIS environmental health information subsystem and the information contents of the screen of this subsystem to acquaint students with the computer system of their work department.

6- Introducing the computer system related to the automatic analysis of test samples and its relationship with the subsystems of the laboratory ward (LIS infrastructure) and the doctor's room (CPOE system) and the health and environmental safety wards of the hospital.

7- Introducing the infrastructures and information transfer standards of laboratory samples between HIE infrastructures in the field of health information and the national health network system (Shams) for Iran.

8- Introducing a computer system for recording health cases and laboratory samples with emphasis on environmental health goals. Integrated health system or its acronym Apple)

9- Application of network for transmission of health information (EHR system (Iranian electronic health record system (thank you)) and telemedicine technology) with emphasis on environmental health science room (specialized supplement of paragraph 3)

10- Searching specialized databases and websites in the healthcare industry (especially environmental health (such as Cochran, Sinal and Pabmed) (search method, search operators, advanced search settings and related screenings) (specialized supplement in paragraph 4)

• **Student duties** (student homework during the semester)

1- Active participation in the class, 2- Reviewing the contents of the previous session in each session, 3- Linking scientific and educational topics with practical topics through grouping

students for real research on the characteristics of each subset of the hospital information system (HIS) Internship in different wards of the hospital, such as inpatient wards, operating room, laboratory, imaging, health information management, accounting and finance, as well as admission - discharge.

• **Main sources** (observing the principles of source writing and giving an address for their preparation, including library, bookstore, internet ...)

• **Teaching methods and teaching aids used**:

PowerPoint equipped with images, specialized software and images of clinical information systems screens in different hospital wards

• Methods and time of assessment and evaluation of the student and the bar related to each evaluation

• The type of exams should be mentioned in terms of how to design the question - loading - exam time and homework)

Method	Score	Date	Time
Practice exam	7		
Theory exam (four-choice)	10		
Research assignment	2		
Active attendance and classroom discipline	1		

Lesson rules and expectations from students

In addition to active participation and observance of current university rules and regulations to attend classes, students should be diligent during the semester to improve their scientific and practical skills in the use of computers in their specialized departments and also to conduct research and extract information. .

Schedule for presenting the computer curriculum for the first semester / 2020-2021 (theory)

Session	Date And time	Topic	Lecturer	Necessary preparation of students before the start of the class
1	Saturday 8-10	Introduction to the general architecture of computer systems and the history of computer systems (with emphasis on the educational aspects of computer use in the field of environmental health) Computer systems architecture components (with emphasis on the educational aspects of computer use in the field of environmental	Shenbeh zade	

		health science)		
2		Introduction of computer and communication networks (in general) - communication network architecture Communicational network		Review previous content
3		Application of computer networks for environmental health purposes. - Telehealth, EHIS Environmental Health Information System Introduction of health information exchange networks (PHIN) with emphasis on environmental health Public Health Information System		
4		Introduction of architecture, components and application of integrated health system (Apple) Integrated Health systems Introduction of integrated health system (apple) and electronic health record (with emphasis on the application of environmental health) Introduction and application of electronic health system (E-Health) with emphasis on health and health aspects Environmental Health Informatics		
5		Hospital Information System (HIS) and Environmental Health Subset (EHIS Computer Systems) Application of network for transmission of health information (EHR system (Iranian electronic health record system (thank you)) and telemedicine technology)		
		Schedule for presenting the computer curriculum for the first		

		semester / 1300-1499 (practical)		
6		Introducing databases / working with databases (search engines and web indexes) - with emphasis on environmental health keywords Internet search (in general) such as web browsers (search settings and search screening with search operators		
7		Working with databases and Internet (focusing on environmental health research areas) (1) Internet Databases		
8		Personal information management in computer systems (files and information folders and related settings) - with emphasis on health information management Creating databases and conducting data mining in databases (knowledge representation) - Access data mining Disease Registries and surveillance Health Registries and surveillance		
9		Introduction of computer systems Data mining in software through Access		
10		Application of network infrastructure and information in the transmission of health information - focusing on environmental health WEB BASE EHIS		
11		Training of application software for academic purposes (with emphasis on environmental health)		
12		ICDL training for academic purposes (with emphasis on environmental health)		