



TEHRAN UNIVERSITY
OF
MEDICAL SCIENCES

« Course plan of New Advancements in Digital Health »

Details of course:

Educational group providing the course: Digital Health

Course title: New Advancements in Digital Health

Course ID: 23

Type and number of units: 2 theoretical units

Name of the person responsible for the course: Dr. Ardalan Shariat

Instructor/ Instructors: Dr. Ardalan Shariat/Dr. Ali Alizadeh

Prerequisites/simultaneous: Digital Health 1

Field and level of education: Master's degree in Digital Health

Course instructor information:

Academic level: Assistant Professor

Specialized field: PhD in Digital Health

Workplace: Department of Digital Health, Faculty of Medicine, Tehran University of Medical Sciences

Contact phone: 09398614772

Email address: ardalansh2002@gmail.com

General description of the course (the person in charge of the course is expected to describe the different content parts of the course in the form of one or two paragraphs while providing general explanations):

General goals: An introduction to new approaches in digital health based on the latest published papers

Specific goals/ sub-themes of each ability:

- 1- Introduction to ML and AI in Digital Health; Applications in Telemedicine
- 2- New approaches in prediction of diseases
- 3- New approaches in rehabilitation and digital health
- 4- Game-based learning and digital health

After the end of this course, it is expected that the student:

Creating capabilities in a comprehensive way to achieve specific goals

Educational approach:

Virtual and in person

Teaching-learning methods according to the chosen educational approach:

Problem Based Learning (PBL)

Discussion

Speech

Combined approach

A combination of virtual and face-to-face educational approaches is used.

Sessions of the course:

Instructor	Tasks of student	Teaching technique	Topic	Session
Dr.Ali Alizadeh	Conversation Question and answer Shorthand Presentation of students	Combined approach	Introduction to ML and AI in Digital Health; Applications in Telemedicine	1
Dr.Ali Alizadeh	Conversation Question and answer Shorthand Presentation of students	Combined approach	Clinical Applications of AI and ML in healthcare	2
Dr.Ali Alizadeh	Conversation Question and answer Shorthand Presentation of students	Combined approach	Human Disease Prediction System; Application of AI in Chronic Diseases	3
Dr.Ali Alizadeh	Conversation Question and answer Shorthand Presentation of students	Combined approach	AI in Gastroenterology; Application of Telemedicine	4
Dr.Ali Alizadeh	Conversation Question and answer Shorthand Presentation of students	Combined approach	Internet of things and Smart healthcare; application in mental health	5
Dr.Ali Alizadeh	Conversation Question and answer Shorthand Presentation of students	Combined approach	CDSS; Applications in Internal Medicine and Drug Therapy Based on Genomics	6
Dr.Ali Alizadeh	Conversation Question and answer Shorthand Presentation of students	Combined approach	Final Presentation by Students	7
Dr. Ardalan Shariat	Conversation Question and answer Shorthand Presentation of students	Combined approach	Brain Stroke detection using deep learning; Application of Telemedicine	8
Dr. Ardalan Shariat	Conversation Question and answer Shorthand	Combined approach	Advanced Topics in telerehabilitation	9

Instructor	Tasks of student	Teaching technique	Topic	Session
	Presentation of students			
Dr. Ardalan Shariat	Conversation Question and answer Shorthand Presentation of students	Combined approach	Game-based learning in Digital Health	10
Dr. Ardalan Shariat	Conversation Question and answer Shorthand Presentation of students	Combined approach	Digital Health and geriatrics	11
Dr. Ardalan Shariat	Conversation Question and answer Shorthand Presentation of students	Combined approach	Application of Digital Health in children Health Promotion	12
Dr. Ardalan Shariat			Final Presentation by Students	13
Dr. Ardalan Shariat			پرسش و پاسخ	14

2 sessions will added based on the needs of students with focus on team work in class.

If any of the sessions are canceled for any reason, compensatory sessions will be held.

Duties and expectations from the student:

Attending class regularly, checking resources and reading texts before attending class, doing homework

Student evaluation method:

Oral questions in different sessions

Quiz

Midterm exam

End of semester exam.

References:

It would be based on the latest published papers on the date of class.