In The Name of God

Islamic Republic of Iran
Ministry of Health and Medical Education
Deputy for Education

Educational Technology in Medical Sciences

Master of Science (MSc)

Total Program Credits: 44

Core: 29
Non-core: 2
Compensatory: 9
Thesis: 4

Program Description

Educational technology is an interdisciplinary subject drawing on the findings of various fields including cognitive sciences, meta-cognition, information and communication technology, education, assessment, educational programming, and curriculum planning. It evolved after 1900 through five processes of tools, educational materials, lesson systems, educational systems, and social systems. Reputable international universities such as Bloomsburg University, University of Colorado, Queens University, Michigan state, and University of British Columbia, all offer educational technology which is presented through more or less different programs.

In Iran, it was first established at the BSc level in 1974. Now, there are graduates up to the level of professional doctorate.

Educational technology in medical sciences is one of the interdisciplinary fields comprising of approaches and instructions solving medical educational problems including educational designing, administration, and assessment through research findings. Students of this field acquiring educational principles and designing models and medical educational programs through available technologies not only connect with experts on different medical courses but they also facilitate the process of knowledge transfer by applying latest findings in educational technology and presenting them to both the general and academic audience. Educational technology in medical sciences aims at educating graduates through assessment and screening of competent candidates enabling them to develop, introduce, and apply modern educational technology through appealing to suitable research and recognizing educational grounds especially at state medical science universities. Thus, they can provide developing grounds for presenting educational materials in state medical science universities.

Admission Requirements

1-Success in the Entrance Examination of ministry of health, treatment, and medical education.

2-Holding B.S. in all medical science fields or a general Doctorate Degree in Medicine, dentistry, and pharmacy. All the applicants participating in exam are required to be employed in centers and offices of medical science education studies and development of universities, centers of clinical-medical skills education, centers of virtual education, and other non-medicine hospital educational systems. Their employment and experience are to be approved by Educational Office of the university.

Note: Holders of B.S. degrees from Ministry of Science, Research, and Technology in Educational Technology, Educational Planning, Curriculum Planning, Educational Planning and Management, in addition to being employed in one of the above-mentioned centers and offices, are also required to have at least two years of experience approved by Educational Office of the related university.

3- Holding M.S. degree in one of the fields of Medical Education, Health Education, Electronic Learning Programming in Medical Education, Health Information Technology, Medical Informatics, Medical

Engineering, Society-Based Education in Health System, And Health And Media
Note: (working experience and being employed are not required for these applicants (

Expected General and Specific Competencies at the End of the Program General Competencies*

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Specific Competencies and Skills

- Assessing the needs for educational technologies
- Evaluating educational resources and materials
- Applying educational technology approaches and skills to medical science education
- Designing educational materials and media including computer-assisted learning programs, familiarizing the faculty with the principles of programming languages, with virtual and simulating programs, designing educational programs based on computer games, designing Patient Management Problem programs, designing network-oriented programs and weblogs, simulated patients and educational mannequin and models
- Running and managing Videoconferencing programs and CCTV cameras
- Familiarizing faculty with educational modeling concepts
- Designing clinical and nonclinical centers

Educational strategies, Methods and Techniques* Student assessment

Formative and summative, including written and oral tests, assessment of class and group discussion participation, projects and assignments, library affairs, and assessment of logbooks and portfolios

Ethical Considerations*

*Note: The related document(s) can be found at http://hcmep.behdasht.gov.ir/.

Tables of the Courses

Table 1: Core Credits

Code of the Course	Title of the Course	Credits					Teaching Hours					Prerequisite or Simultaneous Course
		Theoretical	Practical	Clinical Training	Clinical Practice	Total	Theoretical	Practical	Clinical Training	Clinical Practice	Total	
1	**Learning-Teaching Approaches and Strategies in Medical Sciences**	1	1	-	-	2	17	34	-	-	51	-
2	**Program Assessment Models and Theories in Medical Science Education**	2	-	-	-	2	34	-	-	-	34	-

3	**Learning Theories and their Application in Medical Science Education**	2	-	-	-	2	34	-	-	-	34	-
4	**Medical Information Systems[1]**	0.5	0.5	-	-	1	9	17	-		26	-
5	**General Medicine**	2	-			2	-	-	-	-	-	-
Total			**9**						**145**			

Students are required to pass some of the compensatory courses presented in Table1 issued by educational board verified by the university education council, in addition to the core and noncore credit courses presented in the following tables.

Table 2. Core Courses

Code of the Course	Title of the Course	Credits					Teaching Hours					Prerequisite or Simultaneous Course
		Theoretical	Practical	Clinical Training	Clinical Practice	Total	Theoretical	Practical	Clinical Training	Clinical Practice	Total	
06	**Educational Technology**	2	1	-	-	3	34	34	-	-	68	-
07	**Future Planning in Educational Technology**	1	-	-	-	1	17	-	-	-	17	-
08	**Principles of Educational Planning**	1	1	-	-	2	17	34	-	-	51	06
09	**Learning Technologies, Tools, and Principles**	2	1	-	-	3	34	34	-	-	68	06 & 03
10	**Educational Infrastructure Planning in Medical Science**	1	1	-	-	2	17	34	-	-	51	06 & 08
11	**Statistics and Research Methodology in Medical Sciences Educational Technology**	2	1	-	-	3	34	34	-	-	68	-
12	**Principles of Media Design and Application**	1.5	1.5	-	-	3	26	51	-	-	77	-
13	**Specialized English**	2	-	-	-	2	34	-	-	-	34	
14	**Educational Management and its Application in Educational Technology**	1.5	0.5	-	-	2	26	17	-	-	43	-
15	**Principles of Designing Simulators and their Application**	1	1	-	-	2	17	34	-	-	51	06
16	**Information Communication Technology (ICT) in medical sciences education**	1.5	1.5	-	-	3	26	-	51	-	77	06
17	**Thesis**	4										
Total		**29**										

Table 3. Noncore course

Code of the Course	Title of the Course	Credits					Teaching Hours					Prerequisite or Simultaneous Course
		Theoretical	Practical	Clinical Training	Clinical Practice	Total	Theoretical	Practical	Clinical Training	Clinical Practice	Total	
18	**Introduction to computer programming**	1	1		-	2	17	51	-	-	68	-
19	**Electronic material design and preparation**	1	1		-	2	17	51		-	68	-
20	**Group dynamics**	2	-		-	2	34	34	-	-	68	-
21	**Communication skills**	1.5	0.5		-	2	26	43	-	-	69	-
Total		**8**										

Students are required to pass two credits of the courses in table 3 in close relation with the subject of the thesis, the supervisor and university education council's approval is required.