

In the Name of God

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

Radiation Therapy Technology
Degree: Bachelor of Science (BSc)

Total Course Credits

- | | |
|--------------------------|-----|
| • General: | 22 |
| • Basic and Specialized: | 84 |
| • Apprenticeship | 24 |
| • Total: | 130 |

Program Description

The field of Radiation Therapy Technology is a branch of the paramedical sciences whose BSc graduates learn about the principles and various techniques in the treatment of disease (mostly malignant tumors) using ionized radiation and about the prevention of tumor cell growth and division. In this program, students get familiarized with advanced treatment techniques such as stereotactic and 3-D treatments. This field was established in Iran in 1966 by professors of Oncology Radiation Therapy and Medical Physics and started as a BSc program in 1992 at Tehran University of Medical Sciences. In the next 10 years, the Islamic Republic of Iran will be among the top countries offering this course in terms of the educational excellence, research products and providing diagnostic services concerning Radiation Therapy Technology. The main mission of the course is training committed, knowledgeable and competent people in the field.

Admission Requirements

Meeting admission criteria based on the regulations of the National Universities' Entrance Examination

Expected Competencies at the End of the Program

General Competencies*

Specific Competencies and Skills

- At the end of the program learners will be competent in the following skills:

Educational Strategies, Methods and Techniques*

Student Assessment (Methods and Types)

- Formative (quizzes and midterm exam)
- Summative (final exam)
- Methods of assessment: oral, written, observation, clinical competence assessments
- Portfolio assessment: test results, reports, articles, certificates, promotions, etc.

Ethical Considerations*

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

Tables of the Courses

Table 1. General Courses

Code of the course	Title of the course	Number of Credits			Teaching Hours			Prerequisite or concurrent
		Theoretical	Practical	Total	Theoretical	Practical	Total	
01	Islamic Basic Theoretical Lessons	4	-	4	68	-	68	-
02	Islamic Ethics	2	-	2	34	-	34	-
03	Islamic Revolution	2	-	2	34	-	34	-
04	Islamic History and Civilization	2	-	2	34	-	34	-
05	Familiarization with Islamic Texts	2	-	2	34	-	34	-
06	Persian Literature	3	-	3	51	-	51	-
07	General English	3	-	3	51	-	51	-
08	Physical Education (1)	-	1	1	-	34	34	-
09	Physical Education (2)	-	1	1	-	34	34	-
10	Population and Family Planning	2	-	2	34	-	34	-
Total				22				

Table 2. Basic and Specialized Courses

Code of the Course	Title of the Course	Number of Credits	Teaching Hours			Prerequisite or concurrent
			Theoretical	Practical	Total	
11	Computer and IT	2	17	34	51	-
12	Mathematics	2	34	-	34	-
13	Physiology	3	34	34	68	-
14	Ethical and Legal Considerations	2	34	-	34	-
15	Radiation Physics	3	51	-	51	-
16	Radiotherapy Equipment	3	34	34	68	15
17	Histology	4	34	68	102	-
18	General Hygiene in the Radiotherapy Ward	1	17	-	17	-
19	Protection	2	34	-	34	15
20	Radiobiology	2	34	-	34	15
21	Nuclear Medicine	3	34	34	68	-
22	Principles of Measurement and Treatment Plans in Radiotherapy	3	34	34	68	-
23	Medical Terminology	2	34	-	34	-
24	Anatomy of Body Systems	3	34	34	68	-
25	General Pathology	2	34	-	34	-
26	Dosimetry	2	17	34	51	15
27	Fundamentals of Oncology	2	34	-	34	15
28	Research Methods	2	34	-	34	-
29	Safety and Health	1	17	-	17	-
30	Pathology of Malignant diseases	2	34	-	34	26
31	Surface and Deep Topography	2	17	34	51	24
32	Radiology for Radiotherapy	1	17	-	17	20
33	Medical Imaging Techniques	3	34	34	68	-
34	Special Radiotherapy Techniques	2	34	-	34	-
35	Clinical Dosimetry	2	17	34	51	26
36	Treatment Plan for New Radiotherapy Techniques	2	17	34	51	22
37	Simulation and Localization	3	34	34	68	35
38	Physics in Brachytherapy	3	34	34	68	22
39	Evaluation of Imaging Clichés	2	34	-	34	34
40	Non-radiotherapy Treatment Alternatives	2	34	-	34	27
41	Clinical Applications of Radiotherapy (1)	2	34	-	34	27
42	Clinical Applications of Radiotherapy (2)	2	34	-	34	41
43	Oncology in Children	1	17	-	17	41
44	Brachytherapy Techniques	1	17	-	17	41
45	Treatment Trend and Essential Care in Cancer Patients	2	34	-	34	27
46	Modeling (Molding and Fixator Construction)	2	34	-	34	-
47	Psychology of Cancer Patients	2	17	34	51	-
48	Specialized English	2	34	-	34	07
49	Quality Control	2	34	-	34	-
Total		84				

Table 3. Apprentice Courses

Code of the Course	Title of the Course	Number of Credits			Teaching Hours		
		Theoretical	Practical	Total	Theoretical	Practical	Total
50	Apprenticeship (1)	-	12	12	-	612	612
51	Apprenticeship (2)	-	12	12	-	612	612
Total			24	24			

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