

In the Name of God

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

Orthodontics

Degree: Specialty equivalent to Master of Science (MSc)

Total Course Credits

• Common basic sciences	5
• Specific basic sciences	5
• Related sciences	5
• Core courses	93

Program Description

Orthodontics is one of the specialty courses in dentistry, which deals with the prevention, diagnosis and treatment of dentoalveolar anomalies. Graduates passing the specialty and board exams held by the authorities of the Ministry of Health, Treatment and Medical Education will be certified as orthodontists.

The General Aim

The aim of the educational curriculum is to train orthodontists who have achieved the standards of knowledge, beliefs and opinions and practical skills up to national and global standards. In addition, the graduates should be able to provide high-quality preventive and therapeutic services, provide educational services and have an active role in expanding the boundaries of knowledge and research within the framework of their specialty field.

The Specific Aims

The graduates of the orthodontics specialty course should have acquired following skills:

- Identify and diagnose dentofacial anomalies and evaluate the multidimensional nature of these conditions in relation to dentoalveolar anomalies and functional and morphologic disturbances of the oro-dento-alveolar system
- Have a profound understanding of the biologic knowledge and the neuromuscular physiology and occlusion in relation to clinical orthodontics
- Have the necessary knowledge and skill to understand the patients' clinical problems and document them and plan the most appropriate and evidence-based treatment plan and use different therapeutic methods to prevent and correct dentoalveolar anomalies
- Have the necessary knowledge and skill to establish communication with and offer services in relation to other specialty fields as relevant to orthosurgery, cleft patients and syndromes
- Have the ability to evaluate and use information and data acquired from new studies in his/her clinical practice
- Have adequate knowledge and ability in relation to research methodology and design research plans in orthodontics
- Have the capacity for analytical thinking in orthodontics and to teach all the capacities mentioned above as a university lecturer

Duration of the Course

The specialty course of orthodontics lasts 6 semesters (3 years) and is a full-time course based on the guidelines of the Council for General and Specialty Dental Courses.

Admission Requirements

- Holding an DDS or DMD degree
- Having passed the National Entrance Exam

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:

- Diagnosis (Preparation of appropriate problem list for each patient)
- Treatment planning (appropriate selection of alternative plans according to patient's chief complaint, values, socio-economic status, motivation, and cooperation)
- Application of appropriate treatment mechanics according to the patient's needs
- Patient management
- Finishing the case according to the standards of American Board of Orthodontics

Educational Strategies, Methods and Techniques*



Student Assessment (Methods and Types)

- Formative
- Summative
- Comprehensive exam

Ethical Considerations*



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

Tables of the Courses

Table 1. The common basic sciences courses in Orthodontics MSc

Code of the course	Course title	Units and the course types			
		Workshop	Theoretical	Practical	Total
1	Research methods (1)	2	-	-	2
2	Research methods (2)	2	-	-	2
3	Scientific writing	1	-	-	1
Total					5

Table 2. The specific basic sciences courses in Orthodontics MSc

Code of the course	Course title	Units and the course types			
		Workshop	Theoretical	Practical	Total
4	Oral Physiology and biology	-	1	-	1
5	Craniofacial genetics	-	1	-	1
6	Clinical photography	1	-	-	1
7	Treatment management	-	2	-	2
Total		1	4		5

Table 3. The related sciences courses in Orthodontics MSc

Code of the course	Course title	Units and the course types			
		Theoretical	Practical	Total	Prerequisite
8	Prosthodontics	1		1	
9	Periodontics	1		1	
10	Oral and maxillofacial surgery	1		1	
11	Oral and maxillofacial surgery		1	1	
12	Oral and maxillofacial radiology	1		1	
Total				5	

Table 4. The core courses in Orthodontics MSc

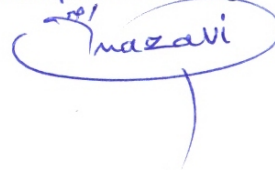
Code of the course	Course title	Units and the course types			
		Theoretical	Practical	Total	Prerequisite
13	Literature review (1)	1	-	1	
14	Literature review (2)	1	-	1	13
15	Biomechanics	2	-	2	-
16	Biology of tooth movement and tissue reaction	1	-	1	15
17	Diagnosis (imaging)	2		2	
18	Principles of diagnosis and treatment planning	2	-	2	
19	Preclinic (removable appliances)	-	1	1	
20	Preclinic (fixed appliances)	-	1	1	
21	Typodont	-	4	4	
22	Fixed appliance technique (1)	1	-	1	20
23	Fixed appliance technique (2)	2	-	2	23
24	Principles of removable appliances	2	-	2	
25	Treatment (1)	2	-	2	17,18
26	Treatment (2)	2	-	2	25
27	Treatment (3)	1	-	1	26
28	Orthognathic surgery	2	-	2	26
29	Development of occlusion	1	-	1	
30	Growth and development	1	-	1	
31	Retention and relapse	1	-	1	26
32	Syndromes and cleft lip and palate	2	-	2	29,30
33	Biomaterials	1	-	1	15
34	Temporomandibular joint disorders	1	-	1	30

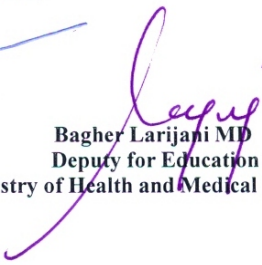
35	Treatment planning Case presentation (1)	-	1	1	
36	Treatment planning Case presentation (2)	-	1	1	35
37	Evaluation of treatment outcomes Case presentation (1)	-	1	1	36
38	Evaluation of treatment outcomes Case presentation (2)	-	1	1	37
39	Clinical treatment (1)		4	4	
40	Clinical treatment (2)		5	5	39
41	Clinical treatment (3)		8	8	40
42	Clinical treatment (4)		7	7	41
43	Clinical treatment (5)		8	8	42
44	Clinical treatment (6)		11	11	43
45	Thesis (1)	2		2	
46	Thesis (2)	2		2	45
47	Thesis (3)	2		2	46
48	Thesis (4)	6		6	47
Total		40	53	93	

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