

**Immunology Department**  
**Molecular Biology & Bioinformatics**  
**MSc Students of Immunology (Mehr 1403)**

	<b>Subject</b>	<b>Lecturer</b>	<b>Date</b>	<b>online</b>
	<b>Basic Molecular Biology</b>			
1	Genome anatomy: An overview	Dr. Kheshtchin	1403/07/02	
2	Regulation of gene expression at DNA level: Epigenetics	Dr. Talepoor	1403/07/09	
3	Regulation of gene expression at transcription level: DNA binding proteins & transcription factors	Dr. Talepoor	1403/07/16	
4	Regulation of gene expression at post-transcriptional level: Regulatory RNA molecules	Dr. Talepoor	1403/07/23	
	<b>Molecular Biology Methods</b>			
6	Gene cloning: Vectors & Enzymes	Dr. Farjadian	1403/07/30	
7	Recombinant protein production	Dr. Farjadian	1403/08/07	
8	DNA/RNA extraction methods	Dr. Farjadian	1403/08/14	
9	PCR: optimization & trouble shooting	Dr. Farjadian	1403/08/21	
10	PCR-based methods	Dr. Farjadian	1403/08/28	
11	Principles of Real-time PCR	Dr. Kheshtchin	1403/09/05	
12	qRT - PCR	Dr. Kheshtchin	Makeup	
13	DNA sequencing methods	Dr. Farjadian	1403/09/12	
	<b>Bioinformatics</b>			
14	Searching dbSNP	Dr. Ramezani	1403/09/19	
15	Primer design	Dr. Ramezani	1403/09/26	
16	Evaluation of designed primers	Dr. Ramezani	1403/10/03	
17	Data bases for DNA/Proteins & Sequence alignment	Dr. Kalantar	1403/10/10	*

**Mondays: 8-10**

**Coordinated by: Dr. Farjadian**

نحوه ارزیابی دانشجو در این درس شامل امتحان به صورت شفاهی و کتبی، کوئیز، انجام تکلیف و ... می باشد.