



Faculty of Pharmacy
Tabriz University of Medical Sciences

Ph.D Courses of Medicinal Chemistry

Table 1. Compensatory courses

Code of the Course	Title of the Course	Number of Credits			Hours			Prerequisite or Concurrent Courses	
		Theoretical	Practical	Total	Theoretical	Practical	Total		
01	Medical Informatics Systems	0.5	0.5	1	9	17	26	-	
02	General Pharmacology	3	-	3	51	-	51	-	
03	Theoretical and Practical Instrumental Analysis	3	1	4	51	34	85	-	
04	Professional Ethics	2	-	2	34	-	34	-	
05	Research Methods and Advanced Statistics	2.5	0.5	3	43	17	60	-	
Total		13							

*Student will be asked to pass all or part of compensatory courses (Table 1). The composition of these courses will be determined by the department in which the student is admitted according to student's background.

Table 2. Core courses

Code of the Course	Title of the Course	Credits			Hours			Prerequisite or Concurrent Courses
		Theoretical	Practical	Total	Theoretical	Practical	Total	
06	Advanced Biochemistry (Theoretical)	3	-	3	51	-	51	-
07	Advanced Pharmacology	2	-	2	34	-	34	General Pharmacology (02)
08	Advanced Organic Chemistry and Synthesis	3	-	3	51	-	51	-
09	Advanced Medicinal Chemistry 1 (Theoretical)	3	-	3	51	-	51	Advanced Biochemistry (06)
10	Advanced Medicinal Chemistry (Practical)	-	1	1	-	34	34	Advanced Medicinal Chemistry 1 (09)
11	Advanced Medicinal Chemistry 2	2	-	2	34	-	34	Advanced Medicinal Chemistry 1 (09)
12	Advanced Instrumental	2	-	2	34	-	34	Theoretical and Practical

	Analysis (Theoretical)							Instrumental Analysis (03)	
13	Heterocyclic Chemistry	2	-	2	34	-	34	Advanced Organic Chemistry and Synthesis (08)	
14	Seminar 1	1		1	-	-	34	Advanced Pharmacology (07) and Advanced Medicinal Chemistry 1 (09)	
15	Seminar 2	1	-	1	-	-	34	Advanced Pharmacology (07) and Advanced Medicinal Chemistry 1 (09)	
16	Thesis			22					
Total								42	

Table 3. Non- Core Courses (Electives)

Code of the Course	Title of the Course	Number of Credits			Hours			Prerequisite or Concurrent Courses	
		Theoretical	Practical	Total	Theoretical	Practical	Total		
17	Pharmaceutical Materials Synthesis (Practical)	-	1	1	-	34	34	Advanced Organic Chemistry and Synthesis (08)	
18	Advanced Mathematics	2	-	2	34	-	34	-	
19	Physical Chemistry	4	-	4	68	-	68	-	
20	Computational Chemistry & Drug Design	2	--	2	34	-	34	-	
21	Advanced Instrumental Analysis (Practical)	-	1	1	-	34	34	Advanced Instrumental Analysis (Theoretical) (12)	
Total								10	

Students must pass 8 out of 10 non-core courses on the basis of her/his background and thesis and decision of the department.