

Hamadan University of Medical Sciences

Rector:

Assoc.Prof. MD. Mohhamad Mahdi Majzobi, Spec. ID

Vice-Rectors:

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Director of University Education:

Asst. Prof. Seyed Mohammad Sadegh Hosseini, PhD

Vice chancellor of international Branch:

Assoc. Prof. PharmDr. Davoud Ahmadimoghaddam, Ph.D

SCHOOL OF PHARMACY

Dean:

Prof. PharmDr. Katayoun Derakhshandeh, Ph.D

Vice chancellor for education and research:

Asst. Prof. PharmDr. Mojdeh Mohammadi, PhD

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Outline of the structure of the School of Pharmacy

Faculty Educational Council and Faculty Research Council (the Dean, Vice-Deans, Head of Departments)

Departments and Other Sections of the School:

Department of Clinical Pharmacy

Department of Pharmacology and Toxicology

Department of Pharmacognosy

Department of Pharmaceutical Biotechnology

Department of Pharmaceutical Chemistry

Department of Pharmaceutics

Scientific Information Center

Computer Center

Garden of Medicinal Plants

Section of Physical Education and Sports

Study program Pharmacy
Recommended Study Plan for the academic year 2021/2022
COMPULSORY SUBJECTS

1st section of study (1st semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	General and Inorganic Chemistry	3	Exam	13141320
2	General and Inorganic Chemistry (practice)	1	Exam	13141330
3	Mathematics	2	Exam	13141300
4	Molecular Biology and Genetics	2	Exam	13141340
5	Anatomy theoretical and practice	1.5	Exam	13141350
6	Histology theoretical and practice	1.5	Exam	13141360
7	The General Principles of the Health Care system	1	Exam	13141560
8	First Aid	1	Exam	13141480
9	English Language (general)	3	Exam	10003000
10	Life Skills (Applied Ethics)	2	Exam	10005030
11	Islamic Thoughts I	2	Exam	10001030

1st section of study (2nd semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Organic Chemistry I ¹	3	Exam	13141390
2	Organic Chemistry I (practice) ²	1	Exam	13141400
3	Physiology I ³	4	Exam	13141450
4	Microbiology ⁴	3	Exam	13141490
5	Microbiology – practical classes ⁵	1	Exam	13141500
6	virology	1	Exam	13141510
7	Physic in pharmacy	2	Exam	13141310
8	Islamic revolution of Iran	2	Exam	10007010
9	Islamic Thoughts II	2	Exam	10001040
10	Physical Training and Sports I	1	credit	10004010

¹ Organic Chemistry I shall be enrolled in only after completing General and Inorganic Chemistry.

² Organic Chemistry I (practice) shall be enrolled in only after completing General and Inorganic Chemistry and General and Inorganic Chemistry (practice).

³ Physiology I shall be enrolled in only after completing and Molecular Biology and Genetics and Anatomy theoretical and practice

⁴ Microbiology shall be enrolled in only after completing Molecular Biology and Genetics.

⁵ Microbiology – practical classes shall be enrolled in only after completing Molecular Biology and Genetics.

2nd section of study (1st semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Organic Chemistry II ⁶	3	Exam	13141410
2	Organic Chemistry II (practice) ⁷	1	Exam	13141420
3	Biochemistry ⁸	3	Exam	13141430
4	Biochemistry (practice) ⁹	1	Exam	13141440
5	Physiology II ¹⁰	4	Exam	13141460
6	Physiology II (practice) ¹¹	1	Exam	13141470
7	Parasitology and Mycology ¹²	3	Exam	13141520
8	Parasitology and Mycology (practice) ¹³	1	Exam	13141530
9	Quran Exegesis	2	Exam	10008010
10	Physical Training and Sports I	1	credit	10004020

2nd section of study (2nd semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Analytical Chemistry ¹⁴	2	Exam	13141370
2	Analytical Chemistry (practice) ¹⁵	1	Exam	13141380
3	Immunology ¹⁶	3	Exam	13141540
4	Immunology (practice) ¹⁷	1	Exam	13141550
5	Pharmacology I ¹⁸	3	Exam	13141750
6	Pharmaceutics I	2	Exam	13141840
7	Cell culture ¹⁹	1	Exam	13141680
8	Clinical Biochemistry ²⁰	2	Exam	13141570
9	Farsi language	3	Exam	10002000
10	Analytical History of the early Islam	3	Exam	10006020

3rd section of study (1st semester)

⁶ Organic Chemistry II shall be enrolled in only after completing Organic Chemistry I.

⁷ Organic Chemistry II (practice) shall be enrolled in only after completing Organic Chemistry I and Organic Chemistry I (practice).

⁸ Biochemistry shall be enrolled in only after completing Organic Chemistry I and Molecular Biology and Genetics.

⁹ Biochemistry (practice) shall be enrolled in only after completing Organic Chemistry I and Organic Chemistry I (practice) and Molecular Biology and Genetics.

¹⁰ Physiology II shall be enrolled in only after completing Physiology I.

¹¹ Physiology II (practice) shall be enrolled in only after completing Physiology I.

¹² Parasitology and Mycology shall be enrolled in only after completing Molecular Biology and Genetics.

¹³ Parasitology and Mycology (practice) shall be enrolled in only after completing Molecular Biology and Genetics.

¹⁴ Analytical Chemistry shall be enrolled in only after completing General and Inorganic Chemistry.

¹⁵ Analytical Chemistry (practice) shall be enrolled in only after completing General and Inorganic Chemistry and General and Inorganic Chemistry (practice).

¹⁶ Immunology shall be enrolled in only after completing Microbiology.

¹⁷ Immunology (practice) shall be enrolled in only after completing Microbiology.

¹⁸ Pharmacology I shall be enrolled in only after completing Biochemistry and no sooner than the course of Physiology II has been enrolled.

¹⁹ Cell culture shall be enrolled in only after completing Molecular Biology and Genetics.

²⁰ Clinical Biochemistry shall be enrolled in only after completing Biochemistry.

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Pharmacology II ²¹	3	Exam	13141760
2	Pharmaceutics II ²²	3	Exam	13141850
3	Pharmaceutical Chemistry I ²³	1	Exam	13141690
4	Physical pharmacy I ²⁴	2	Exam	13141820
5	Pharmaceutical Analysis I ²⁵	3	Exam	13141720
6	Biological Drugs ²⁶	2	Exam	13141660
7	English Language for Pharmacists ²⁷	3	Exam	13141580

3rd section of study (2nd semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Pharmacology III ²⁸	2	Exam	13141770
2	Pharmacology (practice) ²⁹	1	Exam	13141780
3	Pharmaceutics III ³⁰	3	Exam	13141870
4	Pharmaceutics II (practice) ³¹	1	Exam	13141860
5	Pharmaceutical Botany	2	Exam	13141600
6	Pharmaceutical Botany (practice)	1	Exam	13141610
7	Pharmaceutical Chemistry II ³²	3	Exam	13141700
8	Physical pharmacy II ³³	2	Exam	13141830
9	Pharmaceutical Analysis II ³⁴	2	Exam	13141730
10	Pharmacotherapy I ³⁵	3	Exam	13141980

²¹ Pharmacology II shall be enrolled in only after completing Pharmacology I.

²² Pharmaceutics II shall be enrolled in only after completing Pharmaceutics I.

²³ Pharmaceutical Chemistry I shall be enrolled in only after completing Organic Chemistry I and II and Pharmacology I.

²⁴ Physical pharmacy I shall be enrolled in only after completing Mathematics and Pharmaceutics I.

²⁵ Pharmaceutical Analysis I shall be enrolled in only after completing Analytical Chemistry and Organic Chemistry II.

²⁶ Biological Drugs shall be enrolled in only after completing Pharmaceutics I and Immunology.

²⁷ English Language for Pharmacists shall be enrolled in only after completing English Language (general).

²⁸ Pharmacology III shall be enrolled in only after completing Pharmacology II.

²⁹ Pharmacology (practice) shall be enrolled in only after completing Pharmacology III.

³⁰ Pharmaceutics III shall be enrolled in only after completing Pharmaceutics I.

³¹ Pharmaceutics II (practice) shall be enrolled in only after completing Pharmaceutics I and no sooner than the course of Pharmaceutics II has been enrolled.

³² Pharmaceutical Chemistry II shall be enrolled in only after completing Pharmaceutical Chemistry I.

³³ Physical pharmacy II shall be enrolled in only after completing Physical Pharmacy I.

³⁴ Pharmaceutical Analysis II shall be enrolled in only after completing Pharmaceutical Analysis I.

³⁵ Pharmacotherapy I shall be enrolled in no sooner than the course of Pharmacology III has been enrolled.

4th section of study (1st semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Pharmaceutics IV ³⁶	2	Exam	13141890
2	Pharmaceutics III (practice) ³⁷	1	Exam	13141880
3	Pharmaceutical Chemistry III ³⁸	3	Exam	13141710
4	Pharmacognosy I ³⁹	2	Exam	13141620
5	Pharmacognosy (practice)	1	Exam	13141630
6	Pharmacotherapy II ⁴⁰	3	Exam	13141990
7	Toxicology for Pharmacists ⁴¹	2	Exam	13141790
8	Toxicology for Pharmacists (practice) ⁴²	2	Exam	13141800
9	Pharmaceutical Analysis II (practice) ⁴³	1	Exam	13141740
10	Community Pharmacy training ⁴⁴	2	Credit	13142130
11	Medication regimen ⁴⁵	1	Exam	13142110

4th section of study (2nd semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Biopharmaceutics and pharmacokinetic ⁴⁶	3	Exam	13141930
2	Pharmaceutics IV (practice) ⁴⁷	1	Exam	13141900
3	Pharmaceutical biotechnology ⁴⁸	3	Exam	13141670
4	Pharmacognosy II ⁴⁹	3	Exam	13141640
5	Pharmacognosy II (practice) ⁵⁰	1	Exam	13141650
6	Microbiological Pharmaceutical Quality Control ⁵¹	2	Exam	13141940
7	Microbiological Pharmaceutical Quality Control (practice) ⁵²	1	Exam	13141950
8	Pharmacotherapy III ⁵³	3	Exam	13142000
9	Pharmacy work experience I (practice) ⁵⁴	3	Exam	13142160

Row	Compulsory subjects In summer	Credit No.	Form of control	Code No.
1	Diploma Thesis I ⁵⁵	2	Credit	13142180

³⁶ Pharmaceutics IV shall be enrolled in only after completing Pharmaceutics I.

³⁷ Pharmaceutics III (practice) shall be enrolled in only after completing Pharmaceutics I and no sooner than the course of Pharmaceutics III has been enrolled.

³⁸ Pharmaceutical Chemistry III shall be enrolled in only after completing Pharmaceutical Chemistry I.

³⁹ Pharmacognosy I shall be enrolled in only after completing Pharmaceutical Botany.

⁴⁰ Pharmacotherapy II shall be enrolled in no sooner than the course of Pharmacotherapy I has been enrolled.

⁴¹ Toxicology for Pharmacists shall be enrolled in only after completing Pharmacology III.

⁴² Toxicology for Pharmacists (practice) shall be enrolled in only after completing Pharmacology III (practice) and no sooner than the course of Toxicology for Pharmacists has been enrolled.

⁴³ Pharmaceutical Analysis II (practice) shall be enrolled in only after completing Analytical Chemistry, Analytical Chemistry (practice), Organic Chemistry II, Organic Chemistry II (practice), and no sooner than the course of Pharmaceutical Analysis II has been enrolled.

⁴⁴ Community Pharmacy training shall be enrolled in only after completing Pharmacotherapy I.

⁴⁵ Medication regimen shall be enrolled in only after completing Physiology II, Pharmacology III and Pharmacotherapy I.

⁴⁶ Biopharmaceutics and pharmacokinetic shall be enrolled in only after completing Mathematics, Pharmaceutics I and Pharmacology I.

⁴⁷ Pharmaceutics IV (practice) shall be enrolled in only after completing Pharmaceutics I and no sooner than the course of Pharmaceutics IV has been enrolled.

⁴⁸ Pharmaceutical biotechnology shall be enrolled in only after completing Molecular Biology and Genetics and Microbiology.

⁴⁹ Pharmacognosy II shall be enrolled in only after completing Pharmacognosy I.

⁵⁰ Pharmacognosy II (practice) shall be enrolled in no sooner than the course of Pharmacognosy II has been enrolled.

⁵¹ Microbiological Pharmaceutical Quality Control shall be enrolled in only after completing Microbiology and Pharmaceutics I II, III, IV.

⁵² Microbiological Pharmaceutical Quality Control (practice) shall be enrolled in only after completing Microbiology (theoretical and practical classes) Pharmaceutics I II, III, IV (theoretical and practical classes) and no sooner than the course of Microbiological Pharmaceutical Quality Control has been enrolled.

⁵³ Pharmacotherapy III shall be enrolled in only after completing Pharmacotherapy I.

⁵⁴ Pharmacy work experience I shall be enrolled in only after completing Community Pharmacy training and no sooner than the course of Pharmacotherapy III has been enrolled.

⁵⁵ Diploma Thesis I shall be enrolled in only after completing at least 140 credits and presenting a certificate of participation in the workshop of research method and chemical and biological safety workshop.

5th section of study (1st semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Pharmaceutics V ⁵⁶	2	Exam	13141910
2	Pharmaceutics V (practice) ⁵⁷	1	Exam	13141920
3	Poison control ⁵⁸	2	Exam	13141810
4	Physicochemical Pharmaceutical Quality Control ⁵⁹	2	Exam	13141960
5	Physicochemical Pharmaceutical Quality Control ⁶⁰ (practice)	1	Exam	13141970
6	Pharmacotherapy IV ⁶¹	2	Exam	13142100
7	Medical Devices ⁶²	2	Exam	13142120
8	Law and Ethics for Pharmacists	2	Exam	13141590
9	Hospital Pharmacy ⁶³	1	Exam	13142140
10	Hospital Pharmacy (practice) ⁶⁴	1	Exam	13142150
11	Pharmacy work experience II ⁶⁵	3	Credit	13142170

5th section of study (2nd semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Food and nutritional supplements and medicines ⁶⁶	2	Exam	13142190
2	Pharmaceutical quality control ⁶⁷	2	Exam	13142270
3	Cosmetology for Pharmacists ⁶⁸	2	Exam	13142230
4	Applied Statistics ⁶⁹	2	Exam	13142260
5	Pharmacy Practice III ⁷⁰	2	Exam	13142380
6	Radiopharmacy (elective)*	2	Exam	13142330
7	DPIC (elective)*	2	Exam	13142340
8	Clinical pharmacology (elective)* ⁷¹	2	Exam	13142350
9	Diploma Thesis II ⁷²	2	Exam	13142300

⁵⁶ Pharmaceutics V shall be enrolled in only after completing Pharmaceutics I, II, III, and IV.

⁵⁷ Pharmaceutics V (practice) shall be enrolled in only after completing Pharmaceutics I, II, III, IV, Pharmaceutics II (practice), Pharmaceutics III (practice) and no sooner than the course of Pharmaceutics V has been enrolled.

⁵⁸ Poison control shall be enrolled in only after completing Toxicology for Pharmacists and First Aid.

⁵⁹ Physicochemical Pharmaceutical Quality Control shall be enrolled in only after completing Analytical Chemistry, Pharmaceutical Analysis I, II and Pharmaceutics I, II, III, IV.

⁶⁰ Physicochemical Pharmaceutical Quality Control (practice) shall be enrolled in only after completing Analytical Chemistry (theoretical and practice), Pharmaceutical Analysis I, II, Pharmaceutical Analysis II (practice) and Pharmaceutics I, II, III, IV (theoretical and practice) and no sooner than the course of Physicochemical Pharmaceutical Quality Control has been enrolled.

⁶¹ Pharmacotherapy IV shall be enrolled in only after completing Pharmacotherapy I.

⁶² Medical Devices shall be enrolled in only after completing Physiology I, II and First Aid.

⁶³ Hospital Pharmacy shall be enrolled in only after completing Pharmacotherapy IV.

⁶⁴ Hospital Pharmacy (practice) shall be enrolled in no sooner than the course of Hospital Pharmacy has been enrolled.

⁶⁵ Pharmacy work experience II (practice) shall be enrolled in no sooner than the course of Pharmacy work experience I (practice) has been enrolled.

⁶⁶ Food and nutritional supplements and medicines shall be enrolled in only after completing Biochemistry and Analytical Chemistry.

⁶⁷ Pharmaceutical quality control shall be enrolled in only after completing Pharmaceutics I-V and Physicochemical Pharmaceutical Quality Control.

⁶⁸ Cosmetology for Pharmacists shall be enrolled in only after completing Pharmaceutics III and IV.

⁶⁹ Applied Statistics shall be enrolled in only after completing Mathematics.

⁷⁰ Pharmacy Practice III shall be enrolled in only after completing Pharmacy work experience II.

⁷¹ Clinical pharmacology shall be enrolled in only after completing Pharmacology III.

⁷² Diploma Thesis II shall be enrolled in only after completing Diploma Thesis I.

* Student should choose one of the elective subjects.

Row	Compulsory subjects In summer	Credit No.	Form of control	Code No.
1	Industrial pharmacy ⁷³	2	Credit	13142280

6th section of study (1st semester)

Row	Compulsory subjects	Credit No.	Form of control	Code No.
1	Management of Pharmaceutical Practice ⁷⁴	2	Exam	13142220
2	Economics of Pharmaceutical Practice ⁷⁵	2	Exam	13142210
3	Traditional medicine ⁷⁶	2	Exam	13142200
4	Culture and civilization of Islam and Iran	2	Exam	100006040
5	Population and Family Planning	2	Exam	10000910
6	Radiopharmacy (elective)* ⁷⁷	2	Exam	13142330
7	DPIC (elective)* ⁷⁸	2	Exam	13142340
8	Clinical pharmacology (elective)*	2	Exam	13142350
9	Diploma Thesis III ⁷⁹	4	Defense	13142310

* Student should choose one of the elective subjects.

⁷³ Industrial pharmacy shall be enrolled in only after completing Pharmaceutics I-V (theoretical and practice), Microbiological Pharmaceutical Quality Control (theoretical and practice) and Physicochemical Pharmaceutical Quality Control (theoretical and practice).

⁷⁴ Economics of Pharmaceutical Practice shall be enrolled in only after completing Mathematics.

⁷⁵ Management of Pharmaceutical Practice shall be enrolled in no sooner than the course of Economics of Pharmaceutical Practice has been enrolled.

⁷⁶ Traditional medicine shall be enrolled in only after completing Pharmacognosy I-II, Pharmaceutics I-IV, Toxicology for Pharmacists, Pharmacology I, and Poison control.

⁷⁷ Radiopharmacy shall be enrolled in only after completing Pharmaceutical Chemistry and Pharmacology III.

⁷⁸ DPIC shall be enrolled in only after completing Pharmacology III, Poison control and Toxicology.

⁷⁹ Diploma Thesis III shall be enrolled in only after completing Diploma Thesis I.