

Study program Pharmacy
 RECOMMENDED STUDY PLAN
for the academic year 2024/2025

COMPULSORY SUBJECTS

1st section of the study

Compulsory subjects	Guarantor	Number of lessons WS			Form of control	Number of lessons SS			Form of control	Nr. of credits
		L	S	P		L	S	P		
History and Organization of Pharmacy	Bolom Kotari	28	0	0	E					3
Biophysics	Kuchařová	28	0	0	E					4
Mathematics	Duintjer Tebbens	14	14	0	C+E					2
Basics of Pharmacy Practice	Smejkalová	16	0	0	C					2
General and Inorganic Chemistry	Roh	28	20	0	C+E					6
Cell Biology	Svobodová	28	0	0	E					4
Organic Chemistry I	Pour	28	20	0	C+E					6
First Aid	Truhlář	0	6	8	C					1
Pharmaceutical Botany I	Šafratová	28	4	10	C					3

Compulsory subjects	Guarantor	Number of lessons WS			Form of control	Number of lessons SS			Form of control	Nr. of credits
		L	S	P		L	S	P		
Pharmaceutical Botany II	Chlebek					42	8	20	C+E	5
English Language for Pharmacists	Clubb	0	28	0	C	0	28	0	C+E	3
Physical Chemistry	Pavlíková Přecechtělová					28	0	28	C+E	5
Microbiology	Konečná					32	0	0	E	4
Organic Chemistry II	Kitson					28	20	0	C+E	5
Bioorganic Chemistry	Vinšová					14	0	0	C	2
Propaedeutical Apothecary Practice	Doseděl							40	C	2
Total number of Hours		198	92	18		144	56	88		
NUMBER OF CREDITS - COMPULSORY SUBJECTS:										57

2nd section of the study

Compulsory subjects	Guarantor	Number of lessons WS			Form of control	Number of lessons SS			Form of control	Nr. of credits
		L	S	P		L	S	P		
Chemical Laboratory Technique	Kitson	0	0	56	C					2
Human Morphology and Physiology	Hronek	56	5	15	C+E					8
Immunology	Rathouská	42	0	0	E					4
Analytical Chemistry (exam together with exam from Instrumental Methods)	Horstkotte	14	16	26	C					3
General Biochemistry	Wsól	56	6	36	C+E					8
Instrumental Methods	Horstkotte					14	17	39	C+E	6
Pharmaceutical Analysis I	Štěrbová					28	8	34	C	4
Pharmacognosy I	Siatka					28	0	28	C	3
Pathological Physiology for Pharmacists	Nachtigal					42	14	0	C+E	7
Pathological biochemistry	Boušová					28	0	0	E	3
Molecular Biology and Genetics	Šimůnek					36	0	0	E	4
Health Care Psychology	Pokladníková					14	0	0	C+E	1
Professional Language Preparation ¹⁾	Novická								E	3
Total number of Hours		168	27	133		190	39	101		
NUMBER OF CREDITS - COMPULSORY SUBJECTS:										56

3rd section of the study

Compulsory subjects	Guarantor	Number of lessons WS			Form of control	Number of lessons SS			Form of control	Nr. of credits
		L	S	P		L	S	P		
Pharmacognosy II	Siatka	28	14	42	C+E					7
Biological Drugs	Miletín	14	0	0	E					1
Pharmaceutical Analysis II	Kučera	28	8	34	C+E					7
Law and Ethics for Pharmacists	Hendrychová	20	0	0	E					2
Physical Principles of Dosage Forms	Paraskevopoulos	28	0	0	E					2
Pharmacology I	Štaud	56	42	0	C					5
Pharmacology II	Štaud					56	42	0	C+E	9
Pharmaceutical Chemistry I	Doležal, M.	42	14	56	C					4
Pharmaceutical Chemistry II	Doležal M.					42	14	0	C+E	8
Economics and Management of Pharmaceutical Practice	Šorf					20	0	0	E	3
Pharmaceutical Technology I	Šklubalová					56	20	50	C	5
Toxicology for Pharmacists	Pourová					28	0	0	E	2
Total number of Hours		216	78	132		202	76	50		
NUMBER OF CREDITS - COMPULSORY SUBJECTS:										55

4th section of the study

Compulsory subjects	Guarantor	Number of lessons WS			Form of control	Number of lessons SS			Form of control	Nr. of credits
		L	S	P		L	S	P		
Medical Devices	Svačinová	28	0	0	E					2
Clinical Pharmacy I	Fialová	70	36	0	C+E					8
Communication Skills for Pharmacists	Pokladníková	14	14	0	C+E					2
Social Pharmacy	Malý	46	13	0	C+E					5
Pharmaceutical Technology II	Šklubalová	56	35	35	C+E					12
Pharmaceutical Care I	Malý	46	19	0	C+E					6
Pharmaceutical Care II	Malý					48	46	6	C+E	8
Diploma Thesis I	Štaud								C	9
Professional Experience in Pharmacy I	Malá						4 weeks		C	5
Total number of Hours		260	117	35		48	46	6		
NUMBER OF CREDITS - COMPULSORY SUBJECTS:										57

5th section of the study

Compulsory subjects	Guarantor	Number of lessons WS			Form of control	Number of lessons SS			Form of control	Nr. of credits
		L	S	P		L	S	P		
Pharmacy Practice	Smejkalová	10	0	0	E					2
Professional Experience in Pharmacy II	Malá		19 weeks		C					36
Diploma Thesis II	Štaud			252	C					22
Total number of Hours		10	0	252						
NR OF CREDITS - COMPULSORY SUBJECTS:										60

ELECTIVE SUBJECTS INCLUDED IN AREAS OF SPECIALIZATION

Area of Specialization: **Pharmaceutical Analysis**

Doc. Štěrbová

Guarantor /Study Consultant:

Doc. Sklenářová

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Nr of Credits
Special Methods of Instrumental Analysis – Lessons, min. 5 students	Sklenářová	3	WS	28	0	0	C	2
Special Methods of Instrumental Analysis – Practical Classes, min. 5 students	Sklenářová	3	WS	0	6	36	C+E	4
Bioanalysis of Drugs, BD	Kučera	4	WS	28	12	16	C+E	5
				Lessons in Total			Credits in Total	
				56	18	52	11	

Area of Specialization:

Pharmaceutical Chemistry

Guarantor /Study Consultant:

prof. M. Doležal

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Number of Credits
The Technology of Synthetic Drugs	Doležal M.	3	SS	28	0	14	C+E	3
Methods of Organic Structure Elucidation (CL=10)	Matouš P.	3	SS	0	28	0	C+E	2
Advanced Organic Chemistry	Pour	3	WS	0	42	0	C+E	3
Basics of Molecular Modelling of Drugs	Zitko	4	WS	14	14	0	C+E	3
Lessons in Total							Credits in Total	
				42	84	14	11	

Area of Specialization:

Clinical Pharmacy

Guarantor /Study Consultant:

prof. J. Vlček

doc. Fialová

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Nr of Credits
Clinical- Pharmaceutical Care	Vlček	4	SS	0	56	0	C+E	6
				Lessons in Total			Credits in Total	
				0	56	0	6	

Area of Specialization:

Drugs of Natural Origin

Guarantor /Study Consultant:

prof. Cahlíková

doc. Siatka

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Nr of Credits
The technology of Natural Drugs	Hulcová	3	SS	28	0	14	C+E	3
Biotechnology	Siatka	3	SS	28	14	0	C+E	3
Toxicity of Natural Substances – min 5 students	Chlebek	4	SS	42	0	0	E	3
Phytopharmaceuticals	Šafratová	4	WS	28	0	0	E	3
				Lessons in Total			Credits in Total	
				126	14	14	12	

Area of Specialization:

Pharmaceutical Technology

Guarantor /Study Consultant:

doc. Šklubalová

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Nr of Credits
Industrial Production of Pharmaceutical Preparations (CL=5)	Smékalová	4	SS	10	10	40	C+E	4
Development of Pharmaceutical Products (CL=5)	Smékalová	4	WS	0	32	0	C+E	4
Selected methods of Pharmaceutical Technology (CL=5)	Mužiková	4	SS	0	14	28	C+E	4
						Lessons in Total		Credits in Total
				10	56	68	12	

ELECTIVE SUBJECTS NOT INCLUDED IN AREAS OF SPECIALIZATION

Elective subjects not included in areas of specialization	Guarantor	WS			Form of Control	SS			Form of Control	Nr of Credits	Recommended year
		L	S	P		L	S	P			
Immunopharmacology (CL=30)	Rathouská					28	14	0	C+E	3	3
Medicinal Plants Production (CL=10)	Hradiská Breiterová					28	0	14	C+E	3	3
Advanced Separation Methods (min. 5 students)	Nováková L.					14	14	0	C+E	3	3
Pharmacokinetics	Červený					14	0	14	C+E	3	3
Experimental Pharmacodynamics (CL=16, incl. students in Czech L.)	Carazo					14	0	28	C+E	3	4
Veterinary Drugs	Vokřál	28	0	0	E					2	4
Radiopharmacy	Trejtnar	28	14	14	E					4	4
Cosmetology for Pharmacists	Kováčik	28	0	0	E					2	4
Pharmacoeconomics and Health Technology Assessment – min. 5 students	Klimeš	0	14	0	E					2	4
Gene Therapy	Miletín	14	14	0	E					2	4
Current Strategies in Pharmacotherapy *)	Čečková	14	0	0	E					2	4
Mass Spectrometry (min 5 students)	Nováková L.	28	14	14	E					4	4
Extemporaneous Preparation in Hospital Pharmacy (CL 3)	Šklubalová					0	28	12	C+E	4	4
Research Project II ¹⁾	Štaud				C				C	6	4
Introduction to Integrative Medicine (min. 5 students)	Pokladníková					0	14	0	C+E	2	4
									Total	45	

¹⁾ Credits in winter and summer semesters are granted by the vice-dean for science based on the presentation of results of the project at the Students Scientific Conference (usually in April)

OPTIONAL SUBJECTS

Optional Subjects	Guarantor	WS			Form of Control	SS			Form of Control	Nr of Credits	Recommended year
		P	S	C		P	S	C			
Physical Training and Sports I	Bezouška	0	0	28	C	0	0	28	C	2	1
Practical classes from Cell Biology	Svobodová					0	7	14	C	2	1
Professional Language Preparation I ¹⁾	Novická	0	28	0	C	0	28	0	C	2	1
Exercises in General Chemistry	Matouš	0	14	0	C					1	1
Summer Sports Course ²⁾	Bezouška							1 week	C	2	1
Constitution of Organic Compounds	Vinšová					0	14	0	C	1	1
Exercises in Organic Chemistry	Vinšová					0	14	0	C	1	1
Selected Chapters from the History of Pharmacy – min 5 students	Bolom Kotari					14	3	0	C	1	1
Applied Computer Technology	Bernhauerová					0	21	0	C	2	1
Selected Methods of Laboratory Technique (CL=24)	Kitson					0	0	28	C	2	2
Physical Training and Sports II	Bezouška	0	0	28	C	0	0	28	C	2	2
Professional Language Preparation II ¹⁾	Novická	0	28	0	C	0	28	0	C	2	2
Immunological methods (CL20)	Rathouská	0	7	7	C					2	2
Microbiology – practical classes (CL20)	Konečná					0	7	14	C	2	2
Introduction to Applied Bioinformatics	Matoušková					0	28	0	C+E	2	3
Phytochemical Methods (CL=12)	Cahlíková	14	0	28	E					2	3
Xenobiochemistry	Wsól	28	14	0	E					3	3
Xenobiochemistry – practical classes	Wsól					0	0	28	C	2	3
Winter Sports Course	Bezouška			1 week	C					1	3
Physical Training and Sports III	Bezouška	0	0	28	C	0	0	28	C	2	3
Current Trends in the Development of Chemical Drugs	Kučerová M.					14	0	0	C	1	3
Research Project I ³⁾	Štaud								C	2	3
Applied Statistics	Duintjer Tebbens	8	10	0	C					2	3
ERASMUS – Intensive study program	Mladěnka							40	C	3	3, 4
Optional Practice I, II	Doseděl							40	C	2	2,3,4,5
Optional Practice III, IV	Doseděl							80	C	3	2,3,4,5
									Total	50	

- 1) The Czech Language is optional, but passing the exam is compulsory! The duration of the course is 4 semesters. Students can register for the course only for the whole year, which means in the 1st and/or both semesters of the 2nd section of studies.
- 2) The course is held in July.
- 3) Credit is granted by the vice dean for science based on the presentation of the results of the project at the Students Scientific Conference (usually in April)

CL = capacity limit

Conditions of FSE for students who started their studies before the academic year 2019/2020:

Parts of FSE:

1) FSE – comprehensive exam from Pharmacognosy, Pharmaceutical Chemistry, Pharmaceutical Analysis, Pharmacology, Pharmaceutical Technology, and Social Pharmacy

2) Diploma Thesis Defense

It is possible to pass parts of FSE only after meeting the conditions of Article 8 of the Organizational Rules of Study and obtaining 300 credits.

Conditions of FSE for students who started their studies in the academic year 2019/2020 and later:

Parts of FSE	Conditions for taking parts of FSE	Recommended Section of Study
FSE 1 – Pharmacognosy	Pharmacognosy II - exam	3WS
FSE 2 – Pharmaceutical Analysis	Pharmaceutical Analysis II - exam	3WS
FSE 3 – Pharmacology	Pharmacology II - exam	3 SS
FSE 4 – Pharmaceutical Chemistry	Pharmaceutical Chemistry II - exam	3 SS
FSE 5 – Pharmaceutical Technology	Pharmaceutical Technology II - exam	4 WS
FSE 6 – Clinical Pharmacy (optional)	Clinical Pharmacy I - exam	4 SS
FSE 7 – 1) Pharmacotherapy and Pharmaceutical Care and Social Pharmacy	It is possible to pass parts of FSE only after meeting the conditions of Article 8 of Organizational Rules of Study at the Faculty of Pharmacy, Charles University, obtaining 300 credits, and after passing FSE 1 – 5 (or FSE 6)	5 SS
FSE 8 – Diploma Thesis Defense		5 SS