

Study program Pharmacy
field of study Pharmacy
RECOMMENDED STUDY PLAN
for the academic year 2022/2023

COMPULSORY SUBJECTS

1st section of 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	Babica	28	0	0	C+E					3
Biophysics	Kuchařová	28	0	14	C+E					4
Mathematics	Duintjer Tebbens	14	14	0	C+E					2
Basics of Pharmacy Practice	Smejkalová	28	0	0	C					2
General and Inorganic Chemistry	Roh	28	20	0	C+E					5
Cell Biology	Svobodová	28	0	0	E					4
Practical classes from Cell Biology	Svobodová					0	3	11	C	1
Organic Chemistry I	Pour	28	20	0	C+E					5
Principles of Dosimetry and Radiation Protection	Smutná	14	0	0	C					1

[illegible]

2nd section of 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	Špulák	0	0	56	C					2
Human Morphology and Physiology	Hronek	56	11	17	C+E					8
Immunology	Rathouská	42	7	7	C+E					4
Analytical Chemistry (exam together with exam from Instrumental Methods)	Polášek	14	16	26	C					3
General Biochemistry	Wsól	56	6	36	C+E					8
Instrumental Methods	Polášek					14	17	39	C+E	6
Pharmaceutical Analysis I	Štěrbová					28	8	34	C	3
Pharmacognosy I	Siatka					28	0	28	C	3
Pathological Physiology for Pharmacists	Nachtigal					42	28	0	C+E	7
Pathological Biochemistry	Boušová					28	0	0	E	3
Molecular Biology and Genetics	Šimůnek					42	0	0	E	4
Microbiology – practical classes	Konečná					0	5	9	C	1
Health Care Psychology	Pokladníková					14	0	0	C+E	1
Extra-Apothecary Practice	Doseděl							40	C	2
Professional Language Preparation ¹⁾	Novická								E	3
Total number of Hours		168	40	142		196	58	150		

[illegible]

3rd section of study

[illegible]

4th section of study

[illegible]

5th section of study

[illegible]

ELECTIVE SUBJECTS INCLUDED INTO 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
Advanced Pharmaceutical Analysis, APA (since the academic year 2023/2024)	Kučera	4	SS	14	16	12	C+E	4
				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
Technology of Synthetics Drugs	Doležal M.	3	SS	28	0	14	C+E	3
Technology of Natural Drugs	Hulcová	3	SS	28	0	14	C+E	3
Advanced Organic Chemistry	Pour	3	WS	0	42	0	C+E	3
Basis of Molecular Modelling of Drugs	Zitko	4	WS	14	14	0	C+E	3
				Lessons in Total			Credits in Total	
				70	56	28	12	

Area of Specialization: **Clinical Pharmacy**
Guarantor /Study Consultant: prof. J. Vlček
 dr. 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
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)	Šklubalová	4	SS	10	10	40	C+E	4
Development of Pharmaceutical Products (CL=5)	Šklubalová	4	WS	0	32	0	C+E	4
Selected methods of Pharmaceutical Technology (CL=5)	Mužíková	4	SS	0	14	28	C+E	4
Lessons in Total							Credits in Total	
				10	56	68	12	

ELECTIVE SUBJECTS NOT INCLUDED INTO AREAS OF SPECIALIZATION

Elective subjects not included into areas of specialization	Guarantor	WS			Form of Control	SS			Form of Control	Nr of Credits	Recommended year
		L	S	P		L	S	P			
Immunopharmacology	Jílek					28	14	0	C+E	3	3
Medicinal Plants Production (CL=10)	Hradiská Breitrová					28	0	14	C+E	3	3
Advanced Separation Methods (min. 5 students)	Nováková L.					14	14	0	C+E	3	3
Pharmacokinetics	Hofman					14	0	14	C+E	3	3
Experimental Pharmacodynamics (CL=16, incl. students in Czech L.)	Carazo					14	0	28	C+E	3	4
Radiopharmacy	Trejtner	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
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
Interpretation of Selected Laboratory Results	Rozsivalová	0	14	0	E					2	4
									Total	43	

- 1) Credits in winter and summer semesters are granted by the vice-dean for science based on the presentation of results of project at 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
Professional Language Preparation I ¹⁾	Novická	0	28	0	C	0	28	0	C	2	1
English Language for Pharmacists	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	Babica					14	0	0	C	1	1
Applied Computer Technology	Duintjer Tebbens					0	21	0	C	1	1
Selected Methods of Laboratory Technique (CL=24)	Špulák					0	3	28	C	1	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
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

Optional Subjects	Guarantor	WS			Form of Control	SS			Form of Control	Nr of Credits	Recommended year
Methods of Organic Structure Elucidation (CL=10), (since academic year 2023/2024)	Matouš P.					0	28	0	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
Total										35	

- ¹⁾ Czech Language is optional but passing the exam is compulsory! Duration of the course is 4 semesters. Students can register for the course only for the whole year, it means in the 1st and/or both semesters of the 2nd section of studies
- ²⁾ course is hold in July
- ³⁾ Credit is granted by the vice-dean for science based on presentation of the results of project at 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 nad Social Pharmacy

2) Diploma Thesis Defense

It is possible to pass parts of FSE only after meeting conditions of Article 8 of 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 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

