

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 GAF297	Bolom Kotari	28	0	0	E					3
Biophysics GAF389	Kuchařová	28	0	0	E					4
Mathematics GAF105	Duintjer Tebbens	14	14	0	C+E					2
Basics of Pharmacy Practice GAF368	Smejkalová	16	0	0	C					2
General and Inorganic Chemistry GAF390	Roh	28	20	0	C+E					6
Cell Biology GAF387	Svobodová	28	0	0	E					4
Organic Chemistry I GAF391	Pour	28	20	0	C+E					6
First Aid GAF127	Truhlář	0	6	8	C					1
Pharmaceutical Botany I GAF337	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 GAF338	Chlebek					42	8	20	C+E	5
English Language for Pharmacists GAF406	Clubb	0	28	0	C	0	28	0	C+E	3
Physical Chemistry GAF199	Pavlíková Přecechtělová					28	0	28	C+E	5
Microbiology GAF366	Konečná					32	0	0	E	4
Organic Chemistry II GAF299	Kitson					28	20	0	C+E	5
Bioorganic Chemistry GAF293	Vinšová					14	0	0	C	2
Propaedeutical Apothecary Practice GAF113	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 GAF369	Kitson	0	0	56	C					2
Human Morphology and Physiology GAF181	Hronek	56	5	15	C+E					8
Immunology GAF394	Rathouská	42	0	0	E					4
Analytical Chemistry (exam together with exam from Instrumental Methods) GAF300	Horstkotte	14	16	26	C					3
General Biochemistry GAF141	Wsól	56	6	36	C+E					8
Instrumental Methods GAF301	Horstkotte					14	17	39	C+E	6
Pharmaceutical Analysis I GAF395	Štěrbová					28	8	34	C	4
Pharmacognosy I GAF035	Siatka					28	0	28	C	3
Pathological Physiology for Pharmacists GAF137	Nachtigal					42	14	0	C+E	7
Pathological biochemistry GAF232	Boušová					28	0	0	E	3
Molecular Biology and Genetics GAF370	Šimůnek					36	0	0	E	4
Health Care Psychology GAF146	Pokladníková					14	0	0	C+E	1
Professional Language Preparation ¹⁾ GAF223	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 GAF304	Siatka	28	14	42	C+E					7
Biological Drugs GAF305	Miletín	14	0	0	E					1
Pharmaceutical Analysis II GAF306	Kučera	28	8	34	C+E					7
Law and Ethics for Pharmacists GAF307	Hendrychová	20	0	0	E					2
Physical Principles of Dosage Forms GAF308	Paraskevopoulos	28	0	0	E					2
Pharmacology I GAF339	Štaud	56	42	0	C					5
Pharmacology II GAF340	Štaud					56	42	0	C+E	9
Pharmaceutical Chemistry I GAF341	Doležal, M.	42	14	56	C					4
Pharmaceutical Chemistry II GAF342	Doležal M.					42	14	0	C+E	8
Economics and Management of Pharmaceutical Practice GAF343	Šorf					20	0	0	E	3
Pharmaceutical Technology I GAF344	Šklubalová					56	20	50	C	5
Toxicology for Pharmacists GAF158	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 GAF159	Svačinová	28	0	0	E					2
Clinical Pharmacy I GAF345	Fialová	70	36	0	C+E					8
Communication Skills for Pharmacists GAF151	Pokladníková	14	14	0	C+E					2
Social Pharmacy GAF351	Malý	46	13	0	C+E					5
Pharmaceutical Technology II GAF346	Šklubalová	56	35	35	C+E					12
Pharmaceutical Care I GAF347	Malý	46	19	0	C+E					6
Pharmaceutical Care II GAF348	Malý					48	46	6	C+E	8
Diploma Thesis I GAF377	Štaud								C	9
Professional Experience in Pharmacy I GAF349	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 GAF336	Smejkalová	10	0	0	E					2
Professional Experience in Pharmacy II GAF363	Malá		19 weeks		C					36
Diploma Thesis II GAF206	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 GAF313	Sklenářová	3	WS	28	0	0	C	2
Special Methods of Instrumental Analysis – Practical Classes, min. 5 students GAF314	Sklenářová	3	WS	0	6	36	C+E	4
Bioanalysis of Drugs, BD GAF315	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 GAF243	Doležal M.	3	SS	28	0	14	C+E	3	
Methods of Organic Structure Elucidation (CL=10) GAF405	Matouš P.	3	SS	0	28	0	C+E	2	
Advanced Organic Chemistry GAF229	Pour	3	WS	0	42	0	C+E	3	
Basics of Molecular Modelling of Drugs GAF316	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 GAF317	Vlček	4	SS	0	56	0	C+E	6
				Lessons in Total			Credits in Total	
				0	56	0	6	

Area of Specialization:
Guarantor /Study Consultant:

Drugs of Natural Origin
prof. Cahlíková
doc. Siatka

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Nr of Credits	
The technology of Natural Drugs GAF236	Hulcová	3	SS	28	0	14	C+E	3	
Biotechnology GAF231	Siatka	3	SS	28	14	0	C+E	3	
Toxicity of Natural Substances – min 5 students GAF353	Chlebek	4	SS	42	0	0	E	3	
Phytopharmaceuticals GAF354	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) GAF378	Smékalová	4	SS	10	10	40	C+E	4
Development of Pharmaceutical Products (CL=5) GAF379	Smékalová	4	WS	0	32	0	C+E	4
Selected methods of Pharmaceutical Technology (CL=5) GAF352	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) GAF234	Rathouská					28	14	0	C+E	3	3
Medicinal Plants Production (CL=10) GAF238	Hradiská Breiterová					28	0	14	C+E	3	3
Advanced Separation Methods (min. 5 students) GAF322	Nováková L.					14	14	0	C+E	3	3
Pharmacokinetics GAF358	Červený					14	0	14	C+E	3	3
Experimental Pharmacodynamics (CL=16, incl. students in Czech L.) GAF372	Carazo					14	0	28	C+E	3	4
Veterinary Drugs GAF404	Vokřál	28	0	0	E					2	4
Radiopharmacy GAF248	Trejtner	28	14	14	E					4	4
Cosmetology for Pharmacists GAF251	Kováčik	28	0	0	E					2	4
Pharmacoeconomics and Health Technology Assessment – min. 5 students GAF287	Klimeš	0	14	0	E					2	4
Gene Therapy GAF325	Miletín	14	14	0	E					2	4
Current Strategies in Pharmacotherapy *) GAF360	Čečková	14	0	0	E					2	4
Mass Spectrometry (min 5 students) GAF359	Nováková L.	28	14	14	E					4	4
Extemporaneous Preparation in Hospital Pharmacy (CL 3) GAF327	Šklubalová					0	28	12	C+E	4	4
Research Project II ¹⁾ GAF328	Štaud				C				C	6	4
Introduction to Integrative Medicine (min. 5 students) GAF290	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 GAF012	Bezouška	0	0	28	C	0	0	28	C	2	1
Practical classes from Cell Biology GAF393	Svobodová					0	7	14	C	2	1
Professional Language Preparation I ¹⁾ GAF259	Novická	0	28	0	C	0	28	0	C	2	1
Exercises in General Chemistry GAF216	Matouš	0	14	0	C					1	1
Summer Sports Course ²⁾ GAF219	Bezouška							1 week	C	2	1
Constitution of Organic Compounds GAF224	Vinšová					0	14	0	C	1	1
Exercises in Organic Chemistry GAF294	Vinšová					0	14	0	C	1	1
Selected Chapters from the History of Pharmacy – min 5 students GAF220	Bolom Kotari					14	3	0	C	1	1
Applied Computer Technology GAF392	Bernhauerová					0	21	0	C	2	1
Selected Methods of Laboratory Technique (CL=24) GAF400	Kitson					0	0	28	C	2	2
Physical Training and Sports II GAF264	Bezouška	0	0	28	C	0	0	28	C	2	2
Professional Language Preparation II ¹⁾ GAF268	Novická	0	28	0	C	0	28	0	C	2	2
Immunological methods (CL20) GAF396	Rathouská	0	7	7	C					2	2
Microbiology – practical classes (CL20) GAF397	Konečná					0	7	14	C	2	2
Introduction to Applied Bioinformatics GAF332	Matoušková					0	28	0	C+E	2	3
Phytochemical Methods (CL=12) GAF226	Cahlíková	14	0	28	E					2	3
Xenobiochemistry GAF237	Wsól	28	14	0	E					3	3
Xenobiochemistry – practical classes GAF361	Wsól					0	0	28	C	2	3
Winter Sports Course GAF218	Bezouška			1 week	C					1	3
Physical Training and Sports III GAF242	Bezouška	0	0	28	C	0	0	28	C	2	3
Current Trends in the Development of Chemical Drugs GAF244	Kučerová M.					14	0	0	C	1	3

Optional Subjects	Guarantor	WS			Form of Control	SS			Form of Control	Nr of Credits	Recommended year
Research Project I ³⁾ GAF333	Štaud								C	2	3
Applied Statistics GAF401	Duintjer Tebbens	8	10	0	C					2	3
ERASMUS – Intensive study program GAF402	Mladěnka							40	C	3	3, 4
Optional Practice I, II GAF398	Doseděl							40	C	2	2,3,4,5
Optional Practice III, IV GAF399	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,	5 SS

	obtaining 300 credits, and after passing FSE 1 – 5 (or FSE 6)	
FSE 8 – Diploma Thesis Defense		5 SS