

## Study program Pharmacy - RECOMMENDED STUDY PLAN FOR THE ACADEMIC YEAR 2025/2026

### COMPULSORY SUBJECTS

#### 1<sup>st</sup> 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		
Pharmacist in practice	Hendrychová	22	6	0	C					3
Physical Pharmacy I	Kuchařová	28	0	0	E					3
Applied Mathematics	Duintjer Tebbens	14	14	0	C+E					2
General and Bioinorganic Chemistry	Roh	28	20	0	C+E					6
Cell Biology	Svobodová	28	0	0	E					3
General Organic Chemistry	Pour	28	20	0	C+E					6
First Aid	Truhlář	0	6	8	C					1
Pharmaceutical Botany I	Cahlíková	24	4	10	C					3
English Language for Pharmacists I	Clubb	0	28	0	C					1
Pharmaceutical Botany II	Chlebek					40	8	20	C+E	6
English Language for Pharmacists II	Clubb					0	28	0	C+E	2
Physical Pharmacy II	Pavlíková Přecechtělová					28	0	28	C+E	5
Organic Chemistry	Kitson					0	10	42	C+E	6
Bioorganic Chemistry	Vinšová					14	0	0	C	2
Chemical Laboratory Technique	Kitson					0	10	42	C	3
Microbiology *)	Konečná					32	0	0	E	4
Propaedeutical Apothecary Practice	Doseděl							40	C	2
<b>Total number of Hours</b>		<b>172</b>	<b>98</b>	<b>18</b>		<b>82</b>	<b>56</b>	<b>172</b>		
<b>NUMBER OF CREDITS -COMPULSORY SUBJECTS:</b>										<b>54</b>

\*) The enrolment of the subject is regulated in the document Prerequisites

**2<sup>nd</sup> 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	Urbánková - 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	E	1
Professional Language Preparation	Novická								E	3
<b>Total number of Hours</b>		<b>168</b>	<b>27</b>	<b>133</b>		<b>190</b>	<b>39</b>	<b>101</b>		
<b>NUMBER OF CREDITS - COMPULSORY SUBJECTS:</b>										<b>60</b>

**3<sup>rd</sup> 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	0	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
<b>Total number of Hours</b>		<b>216</b>	<b>64</b>	<b>132</b>		<b>202</b>	<b>76</b>	<b>50</b>		
<b>NUMBER OF CREDITS - COMPULSORY SUBJECTS:</b>										<b>55</b>

**4<sup>th</sup> 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	20	2	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					51	47	6	C+E	8
Diploma Thesis I	Štaud								C	9
Professional Experience in Pharmacy I	Malá						4 weeks		C	5
<b>Total number of Hours</b>		<b>252</b>	<b>119</b>	<b>35</b>		<b>51</b>	<b>47</b>	<b>6</b>		
<b>NUMBER OF CREDITS - COMPULSORY SUBJECTS:</b>										<b>57</b>

**5<sup>th</sup> 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		
Pharmacist in Healthcare Practice	Hendrychová	10	0	0	E					2
Professional Experience in Pharmacy II	Malá		19 weeks		C					36
Diploma Thesis II	Štaud			252	C					22
<b>Total number of Hours</b>		10	0	252						
<b>NR OF CREDITS - COMPULSORY SUBJECTS:</b>										<b>60</b>

## ELECTIVE SUBJECTS INCLUDED IN AREAS OF SPECIALIZATION

**Area of Specialization:** Pharmaceutical Analysis

Doc. Štěřbová

**Guarantor /Study Consultant:**

Doc. Sklenářová

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Nr of Credits
Special Instrumental Methods – Lessons, min. 5 students	Sklenářová	3	WS	28	0	0	C	2
Special Instrumental Methods – 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
				<b>Lessons in Total</b>			<b>Credits in Total</b>	
				<b>56</b>	<b>18</b>	<b>52</b>	<b>11</b>	

**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)	Kitson	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
				<b>Lessons in Total</b>			<b>Credits in Total</b>	
				<b>42</b>	<b>84</b>	<b>14</b>	<b>11</b>	

**Area of Specialization:** Clinical Pharmacy  
**Guarantor /Study Consultant:** prof. J. Vlček

Subject	Guarantor	Recommended year	Semester	L	S	P	Form of Control	Nr of Credits
Clinical- Pharmaceutical Care	Vlček	4	SS	0	50	0	C+E	6
				<b>Lessons in Total</b>			<b>Credits in Total</b>	
				<b>0</b>	<b>50</b>	<b>0</b>	<b>6</b>	

**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	28	0	0	E	3
Phytopharmaceuticals	Šafratová	4	WS	28	0	0	E	3
				<b>Lessons in Total</b>			<b>Credits in Total</b>	
				<b>112</b>	<b>14</b>	<b>14</b>	<b>12</b>	

**Area of Specialization:**

**Pharmaceutical Technology**

**Guarantor /Study Consultant:**

doc. Šklubalová

<b>Subject</b>	<b>Guarantor</b>	<b>Recommended year</b>	<b>Semester</b>	<b>L</b>	<b>S</b>	<b>P</b>	<b>Form of Control</b>	<b>Nr of Credits</b>
Industrial Production of Pharmaceutical Preparations (CL=5)	Smékalová	4	SS	10	10	40	C+E	4
Development of Pharmaceutical Products (CL=10)	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
<b>Lessons in Total</b>							<b>Credits in Total</b>	
				<b>10</b>	<b>56</b>	<b>68</b>	<b>12</b>	

\*) - incl. students study program Pharmaceutical Sciences

## 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)	Urbánková - Rathouská					15	18	0	C+E	3	3
Medicinal Plants Production (CL=10)	Hradiská Breiterová					28	0	14	C+E	3	3
Pharmacokinetics (CL 24)	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
Veterinary Drugs	Vokřál	28	0	0	E					2	4
Radiopharmacy	Trejtnar	28	14	14	E					4	4
Technology of Cosmetics	Kováčik					27	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 *)	Červený	14	0	0	E					2	4
Mass Spectrometry (min 5 students)	Nováková L.	28	14	14	E					5	4
Extemporaneous Preparation in Hospital Pharmacy (CL 3)	Šklubalová					0	28	12	C+E	4	4
Research Project II <sup>1)</sup>	Štaud				C				C	6	4
Introduction to Integrative Medicine (min. 5 students)	Pokladníková					0	14	0	C+E	2	4
										Total	43

<sup>1)</sup> 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			
Exercises in General Chemistry	Matouš	0	14	0	C					1	1
Chemistry Bridging Course	Krátký	14	0	0	C					1	1
Physical Training and Sports I	Bezouška	0	0	28	C	0	0	28	C	2	1
Czech Language I <sup>1)</sup>	Novická	0	28	0	C	0	28	0	C	2	1
Exercises in Organic Chemistry	Vinšová					0	14	0	C	2	1
History of Pharmacy – min 5 students *)	Bolom Kotari					24	4	0	E	2	1
Applied Computer Technology	Bernhauerová					0	21	0	C	2	1
Practical classes from Cell Biology (CL 100)	Svobodová					0	7	14	C	2	1
Summer Sports Course 2) (CL 140)	Bezouška							1 week	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
Czech Language 1) II <sup>1)</sup>	Novická	0	28	0	C	0	28	0	C	2	2
Immunological methods (CL20)	Urbánková - Rathouská	0	14	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)	Jenčo	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 <sup>3)</sup>	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 Subjects	Guarantor	WS			Form of Control	SS			Form of Control	Nr of Credits	Recommended year
Optional Practice I,	Doseděl							40	C	2	2,3,4,5
Optional Practice II	Doseděl							80	C	3	2,3,4,5
Optional Practice III,	Doseděl							40	C	2	,3,4,5
Optional Practice IV	Doseděl							80	C	3	3,4,5

\*) The course includes a excursion to the Czech Pharmaceutical Museum Kuks.

- 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 1<sup>st</sup> and/or both semesters of the 2<sup>nd</sup> 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:**

<b>Parts of FSE</b>	<b>Conditions for taking parts of FSE</b>	<b>Recommended Section of Study</b>
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