



CHARLES UNIVERSITY

Faculty of Pharmacy in Hradec Králové

Prerequisites, Co-requisites and Incompatibilities of Compulsory Subjects for Pharmacy Students

Compulsory subjects:

➤ **First section of study**

1. The Microbiology course shall be enrolled in only by students who enrol in this course repeatedly in the academic year 2025/2026.
2. Exam in Microbiology shall be taken after completing Cell Biology (applies to repeated enrolment from previous academic years).
3. Exam in Organic Chemistry (formerly Organic Chemistry II) shall be taken after completing General and Bioinorganic Chemistry (formerly General and Inorganic Chemistry), and General Organic Chemistry (formerly Organic Chemistry I).
4. Exam in Pharmaceutical Botany II shall be taken after completing Pharmaceutical Botany I.
5. Exam in Physical Pharmacy II (formerly Physical Chemistry) shall be taken after completing the subjects Applied Mathematics (formerly Mathematics) and Physical Pharmacy I (formerly Biophysics).
6. Chemical Laboratory Technique shall be enrolled in only after completing General and Bioinorganic Chemistry.
7. Credit test in Bioorganic Chemistry shall be taken only after completing General Organic Chemistry (formerly Organic Chemistry I) and General and Bioinorganic Chemistry (formerly General and Inorganic Chemistry).

➤ **Second section of study**

8. Chemical Laboratory Technique shall be enrolled in only after completing General and Inorganic Chemistry, and Organic Chemistry I.
9. Human Morphology and Physiology shall be enrolled in only after completing Cell Biology and no sooner than the course of General Biochemistry, and Immunology has been enrolled.
10. Immunology shall be enrolled in after completing Microbiology and no sooner than the course of Human Morphology and Physiology has been enrolled.
11. Analytical Chemistry shall be enrolled in only after completing Organic Chemistry II. (Exam in Analytical Chemistry shall be taken along with the exam in Instrumental Methods).

Undergraduate Student Services

Akademika Heyrovského 1203/8
500 03 Hradec Králové, Czech Republic
tel. (+420) 495 067 429
e-mail: study@faf.cuni.cz | www.faf.cuni.cz/en

12. General Biochemistry shall be enrolled in after completing Organic Chemistry II and no sooner than the course of Human Morphology and Physiology has been enrolled.
13. Instrumental Methods shall be enrolled in no sooner than the course of Analytical chemistry has been enrolled (Exam in Analytical Chemistry shall be taken along with the exam in Instrumental Methods).
14. Pharmaceutical Analysis I shall be enrolled in no sooner than the course of Instrumental Methods has been enrolled. Credit test in Pharmaceutical Analysis I shall be taken after completion of the course of Analytical Chemistry.
15. Pharmacognosy I shall be enrolled in after completing Pharmaceutical Botany II (or former Botany) and at the same time no sooner than the course of Chemical Laboratory Technique has been enrolled.
16. Pathological Physiology for Pharmacists shall be enrolled in no sooner than the course of Human Morphology and Physiology has been enrolled. Exam in Pathological Physiology for Pharmacists shall be taken after completing the course of Human Morphology and Physiology.
17. Pathological Biochemistry shall be enrolled in no sooner than the course of General Biochemistry has been enrolled. Exam in Pathological Biochemistry shall be taken after completing the course of General Biochemistry.
18. Molecular Biology and Genetics shall be enrolled in no sooner than the course of General Biochemistry has been enrolled. Exam in Molecular Biology and Genetics shall be taken after completing the course of General Biochemistry.

➤ **Third section of study**

19. Pharmacognosy II shall be enrolled in only after completing the course of Pharmacognosy I.
20. Biological Drugs shall be enrolled in only after completing the course of Immunology and Molecular Biology and Genetics and no sooner than the course of Pharmacology I has been enrolled.
21. Pharmaceutical Analysis II shall be enrolled in only after completing the course of Pharmaceutical Analysis I, and after completing the course of Instrumental Methods.
22. Physical Principles of Dosage Forms shall be enrolled no sooner than the course of Pharmaceutical Technology I has been enrolled.
23. Pharmacology I shall be enrolled in only after completing Pathological Physiology for Pharmacists, Pathological Biochemistry and Molecular Biology and Genetics and no sooner than the course of Pharmaceutical Chemistry I has been enrolled.
24. Pharmacology II shall be enrolled in no sooner toxicity than the course of Pharmacology I has been enrolled, exam in Pharmacology II shall be taken after completing the course of Pharmacology I.
25. Pharmaceutical Chemistry I shall be enrolled in only after completing Organic Chemistry II, Bioorganic Chemistry and General Biochemistry and no sooner than the course of Pharmacology I has been enrolled.

26. Pharmaceutical Chemistry II shall be enrolled in no sooner than the course of Pharmaceutical Chemistry I has been enrolled, exam in Pharmaceutical Chemistry II shall be taken after completing the course of Pharmaceutical Chemistry I.
27. Economics and Management of Pharmaceutical Practice shall be enrolled in no sooner than the course of Laws and Ethics for Pharmacists has been enrolled.
28. Pharmaceutical Technology I shall be enrolled in no sooner than the course of Physical Principles of Dosage Forms, Pharmaceutical Chemistry I, Pharmacology I have been enrolled. Credit test in Pharmaceutical Technology I shall be taken after completing the course of Physical Principles of Dosage Forms.
29. Toxicology for Pharmacists shall be enrolled in no sooner than the course of Pharmacology II has been enrolled.

➤ **Fourth section of study**

30. Communication Skills for Pharmacists shall be enrolled in no sooner than the course of Pharmaceutical Care I has been enrolled.
31. Social Pharmacy shall be enrolled in only after completing the course of Economics and Management of Pharmaceutical Practice and no sooner than the course of Pharmaceutical Care I has been enrolled.
32. Clinical Pharmacy I shall be enrolled in only after completing the course of Pharmacology II.
33. Pharmaceutical Technology II shall be enrolled in after completing the course of Pharmaceutical Technology I.
34. Pharmaceutical Care I shall be enrolled in only after completing the course of Basics of Pharmacy Practice and the course of Pharmacology II.
35. Pharmaceutical Care II shall be enrolled in no sooner than the course of Pharmaceutical Care I has been enrolled. Exam in Pharmaceutical Care II shall be taken after completing the course of Pharmaceutical Care I, and Clinical Pharmacy I.
36. Professional Experience in Pharmacy I shall be enrolled in only after completing Pharmaceutical Care I. Additional enrolment in Professional Experience in Pharmacy I allowed any time during the academic year after completing required prerequisite.

➤ **Fifth section of study**

37. Professional Experience in Pharmacy II shall be enrolled in only after completing the course of Professional Experience in Pharmacy I, Pharmaceutical Care II, Social Pharmacy and Pharmaceutical Technology II. Additional enrolment in Professional Experience in Pharmacy II is allowed any time during the academic year after completing all required prerequisites.
38. Pharmacy Practice shall be enrolled in no sooner than the course of Professional Experience in Pharmacy II has been enrolled. Additional enrolment in Pharmacy Practice is allowed any time during the academic year after completing all required prerequisites. Exam in Pharmacy Practice shall be taken after completing the course of Professional Experience in Pharmacy II.

- 39.** For registration of **FSE 7 and Diploma Thesis Defence** it is necessary to pass ALL compulsory subjects, FSE 1 – FSE 5 and to obtain 300 credits at least (incl. 7 credits from elective subjects at least)

Prerequisites, Co-requisites and Incompatibilities of Elective and Optional Subjects
for Pharmacy Students

Elective subjects:

1. Bioanalysis of Drugs shall be enrolled in only after completing the course of Pharmaceutical Analysis II.
2. Exam in Biotechnology shall be taken only after completing the course of Molecular Biology and Genetics.
3. Pharmacokinetics shall be enrolled in no sooner than the course of Pharmacology II has been enrolled, exam in Pharmacokinetics shall be taken after completing the course of Pharmacology I.
4. Exam in Phytopharmaceuticals shall be taken after completing the course of Pharmacognosy II.
5. Exam in Immunopharmacology shall be taken only after completing the course of Immunology.
6. Exam in Technology of Cosmetics shall be taken after completing the course of Pharmaceutical Technology II.
7. Technology of Cosmetics shall not be enrolled after completing the course of Cosmetology for Pharmacists.
8. Exam in Current Strategies in Pharmacotherapy shall be taken after completing the course of Pharmacology II.
9. Extemporaneous Preparation in Hospital Pharmacy shall be enrolled in no sooner than the course of Pharmaceutical Technology II has been enrolled.
10. Exam in Advanced Organic Chemistry shall be taken only after completing the course of Organic Chemistry II.
11. Industrial Production of Pharmaceutical Preparations shall be enrolled in no sooner than the course of Pharmaceutical Technology II has been enrolled.
12. Technology of Synthetic Drugs shall be enrolled in only after completing the course of Organic Chemistry II.
13. Exam in Toxicity of Natural Substances shall be taken only after completing the course of Pharmacology II.
14. Introduction to Integrative Medicine shall be enrolled in only after completing the course of Health Care Psychology and Pharmacognosy II.
15. Development of Pharmaceutical Products shall be enrolled in no sooner than the course of Pharmaceutical Technology II has been enrolled.
16. Selected Methods of Pharmaceutical Technology shall be enrolled in no sooner than the course of Pharmaceutical Technology II has been enrolled.
17. Research Project II shall be enrolled in only after completing the course of Pharmacognosy II.
18. Exam in Basics of Molecular Modelling of Drugs shall be taken only after completing the course of Pharmaceutical Chemistry II.
19. Mass Spectrometry shall be enrolled in only after completing the course of Pharmaceutical Analysis II.

20. Experimental Pharmacodynamics shall be enrolled in only after completing the course of Pharmacology I.
21. Exam in Veterinary Drugs shall be taken after obtaining credit from the course of Pharmacology II.
22. Methods of Organic Structure Elucidation shall be enrolled in only after completing the course of Instrumental Methods.

Optional Subjects:

1. Credit test in Applied Computer Technology shall be taken only after completing the course of Applied Mathematics (formerly Mathematics).
2. Selected Methods of Laboratory Technique shall be enrolled in only after completing the course of General and Inorganic Chemistry and Organic Chemistry I.
3. Xenobiochemistry – Practical Classes shall be enrolled in no sooner than the course of Xenobiochemistry has been enrolled.
4. Exam in Xenobiochemistry shall be taken only after completing the course of General Biochemistry.
5. Exam in Introduction to Applied Bioinformatics shall be taken only after completing the course of Molecular Biology and Genetics.
6. Current Trends in the Development of Chemical Drugs shall be enrolled in only after completing the courses of Organic Chemistry II, Bioorganic Chemistry and General Biochemistry and no sooner than the course of Pharmaceutical Chemistry I has been enrolled.
7. Microbiology – practical classes shall be enrolled in after completing the course of Microbiology.
8. Applied Statistics shall be enrolled in only after completing Mathematics. Additional enrolment is allowed any time during the academic year after completing required prerequisite.
9. Immunological Methods shall be enrolled in no sooner than the course of Immunology has been enrolled.
10. Immunological Methods (GAF396) shall not be enrolled after completing the compulsory course Immunology (GAF394) in the academic year 2023/2024 and earlier. The content of the subject Immunological Methods was included in the content of the subject Immunology (GAF394).
11. Practical Exercises in Microbiology (GAF366) shall not be enrolled in after completing the compulsory course Practical Exercises in Microbiology (GAF397) in the academic year 2023/2024 and earlier. The content of the course Practical Exercises in Microbiology (GAF397) is the same as the content of the course Practical Exercises in Microbiology (GAF371).