

## **Prerequisites, Co-requisites and Incompatibilities**

### **of Compulsory, Elective and Optional Subjects for Pharmacy Students in academic year 2026/2027**

#### **Compulsory subjects:**

##### **➤ First section of study**

1. 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).
2. Exam in Pharmaceutical Botany II shall be taken after completing Pharmaceutical Botany I.
3. 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).
4. Chemical Laboratory Technique shall be enrolled in only after completion of Credit test from General and Bioinorganic Chemistry.
5. 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**

6. Human Morphology and Physiology shall be enrolled in only after completing Cell Biology and no sooner than the course of Immunology has been enrolled.
7. Immunology shall be enrolled in no sooner than the course of Human Morphology and Physiology has been enrolled.
8. Analytical Chemistry shall be enrolled in only after completing Organic Chemistry (formerly Organic Chemistry II). (Exam in Analytical Chemistry shall be taken along with the exam in Instrumental Methods).
9. General Biochemistry shall be enrolled in after completing Organic Chemistry (formerly Organic Chemistry II) and no sooner than the course of Human Morphology and Physiology has been enrolled.
10. 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).
11. Pharmaceutical Analysis I shall be enrolled in only by students who enroll in the subject in the academic year 2026/2027 repeatedly. Credit test in Pharmaceutical Analysis I shall be taken after

completion of the course of Analytical Chemistry.

12. Pharmacognosy I shall be enrolled in after completing Pharmaceutical Botany II.
13. 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.
14. 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.
15. Microbiology shall be enrolled in only after completing the course of Cell Biology and no sooner than the course of Immunology has been enrolled.
16. Pharmaceutical Chemistry I shall be enrolled in only after completing Organic Chemistry (formerly Organic Chemistry II), Bioorganic Chemistry and no sooner than the course of General Biochemistry has been enrolled.

➤ **Third section of study**

17. Pharmacognosy II shall be enrolled in only after completing the course of Pharmacognosy I and after completing the course of Chemical Laboratory Technique.
18. 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.
19. Pharmaceutical Analysis II shall be enrolled in only after completing the course of Pharmaceutical Analysis I, and after completing the course of Instrumental Methods.
20. Physical Principles of Dosage Forms shall be enrolled no sooner than the course of Pharmaceutical Technology I has been enrolled.
21. Pharmaceutical Chemistry I shall be enrolled in only after completing Organic Chemistry (formerly Organic Chemistry II), Bioorganic Chemistry and General Biochemistry.
22. Pharmacology I shall be enrolled in only after completing Pathological Physiology for Pharmacists, and Molecular Biology and Genetics and no sooner than the course of Pharmaceutical Chemistry I has been enrolled.
23. Pharmacology II shall be enrolled in no sooner than the course of Pharmacology I has been enrolled, exam in Pharmacology II shall be taken after completing the course of Pharmacology I.
24. 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.
25. Economics and Management of Pharmaceutical Practice shall be enrolled in no sooner than the course of Laws and Ethics for Pharmacists has been enrolled.
26. Pharmaceutical Technology I shall be enrolled in no sooner than the course of Physical Principles of

Dosage Forms, Pharmacology I have been enrolled. Credit test in Pharmaceutical Technology I shall be taken only after completing the course of Physical Principles of Dosage Forms.

27. Toxicology for Pharmacists shall be enrolled in no sooner than the course of Pharmacology II has been enrolled.

➤ **Fourth section of study**

28. Pharmaceutical Technology II shall be enrolled in after completing the course of Pharmaceutical Technology I.
29. Communication Skills for Pharmacists shall be enrolled in no sooner than the course of Pharmaceutical Care I has been enrolled.
30. 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.
31. Clinical Pharmacy I shall be enrolled in only after completing the course of Pharmacology II.
32. Pharmaceutical Care I shall be enrolled in only after completing the course of Pharmacology II.
33. 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.
34. Professional Pharmacy Practice I shall be enrolled in only after completing Pharmaceutical Care I. Additional enrolment in Professional Pharmacy Practice I is allowed any time during the academic year after completing required prerequisite.

➤ **Fifth section of study**

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

## 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 (formerly 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. Credit test in Special Instrumental Methods – lessons shall be taken only after completing the course of Instrumental Methods.
13. Special Instrumental Methods – practical classes – shall be enrolled in no sooner than the course of Special Instrumental Methods – lessons. Exam in Special Instrumental Methods – practical classes shall be taken only after completing the course of Instrumental Methods.
14. Technology of Synthetic Drugs shall be enrolled in only after completing the course of Organic Chemistry (formerly Organic Chemistry II).
15. Exam in Toxicity of Natural Substances shall be taken only after completing the course of Pharmacology II.
16. Introduction to Integrative Medicine shall be enrolled in only after completing the course of Pharmacognosy II.
17. Development of Pharmaceutical Products shall be enrolled in no sooner than the course of Pharmaceutical Technology II has been enrolled.
18. Selected Methods of Pharmaceutical Technology shall be enrolled in no sooner than the course of Pharmaceutical Technology II has been enrolled.

19. Research Project II shall be enrolled in no sooner than in the 4<sup>th</sup> section of studies.
20. Exam in Basics of Molecular Modelling of Drugs shall be taken only after completing the course of Pharmaceutical Chemistry II.
21. Mass Spectrometry shall be enrolled in only after completing the course of Pharmaceutical Analysis II.
22. Experimental Pharmacodynamics shall be enrolled in only after completing the course of Pharmacology I.
23. Exam in Veterinary Drugs shall be taken after obtaining credit from the course of Pharmacology II.
24. Methods of Organic Structure Elucidation shall be enrolled in only after completing the course of Instrumental Methods.
25. Technology of Natural Drugs shall be enrolled in only after completing the course Pharmacognosy I.
26. Pathological Biochemistry shall be enrolled in no sooner that the course of General Biochemistry has been enrolled. Exam in Pathological Biochemistry shall be taken only after completing the course of General Biochemistry.

### 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 Chemical Laboratory Technique (GAF415), Organic Chemistry (GAF411) and Physical Pharmacy II.
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 (formerly 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. Microbiology – practical classes (GAF397) shall not be enrolled after completing the course Microbiology – practical classes (GAF371) in the academic year 2023/2024 and earlier. Content of

the course of Microbiology – practical classes (GAF397) is the same as the content of the course of Microbiology – practical classes (GAF371).

- 9.** Applied Statistics shall be enrolled in only after completing the course Applied Mathematics (formerly Mathematics). Additional enrolment is allowed any time during the academic year after completing required prerequisite.
- 10.** Immunological Methods shall be enrolled in no sooner than the course of Immunology has been enrolled.
- 11.** Immunological Methods (GAF396) shall not be enrolled after completing the compulsory course Immunology (GAF143) in the academic year 2023/2024 and earlier. The content of the subject Immunological Methods was included in the content of the subject Immunology (GAF143).