**Biopharmacy practical lessons plan**

**2024/25**

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| № | Date | Name of topics and their summary | Hours |
|  |  | **VIII semester** |  |
| 1 | 10.02-16.02 | Topic 1.1. Biopharmacy. Introduction. Biopharmaceutical classification system (BCS). Interview. Solution of situational problems. | 3 |
| 2 | 17.02-23.02 | Topic 1.2. Pharmaceutical factors: chemical modification of drugs; physical and chemical state of medicinal substances; excipients, technological processes, type of dosage form, route of administration and method of application. | 3 |
| 3 | 24.02-02.03 | Topic 1.3. Bioavailability. Absolute and relative bioavailability. Methods for determining bioavailability: pharmacodynamic and pharmacokinetic. Interview. Solution of situational problems. | 3 |
| 4 | 03.03-09.03 | Topic 1.4. Basic aspects of pharmacokinetics. Pharmacokinetic parameters. | 3 |
| 5 | 10.03-16.03 | Topic 1.5. Equivalence of drugs. Methods for determining the equivalence of drugs. Biowaiver procedure | 3 |
| 6 | 17.03-23.03 | Control work on topics 1.1. – 1.5. | 3 |
| 7 | 24.03-30.03 | Topic 2.1. Modern ideas about excipients in the technology of dosage forms from the point of view of biopharmacy. The role of excipients in the creation of dosage forms with the required bioavailability. | 3 |
| 8 | 31.03-06.04 | Topic 2.2. Factors of the technological impact of the main processes and devices on the bioavailability of drugs. | 3 |
| 9 | 07.04-13.04 | Topic 2.3. Medicines with improved biopharmaceutical properties. Solid dosage forms. | 3 |
| 10 | 14.04-20.04 | Topic 2.4. Medicines with improved biopharmaceutical properties. Soft dosage forms and liquid dosage forms. | 3 |
| 11 | 21.04-27.04 | Topic 2.5. Transdermal therapeutic systems. | 3 |
| 12, 13 | 28.04-04.05, 05.05-11.05 | Topic 2.6. Biopharmaceutical evaluation of the quality of various dosage forms. The study of the release and absorption of medicinal substances. Dissolution test for drug analysis. | 6 |
| 14 | 12.05-18.05 | Control work on topics 2.1. – 2.6. | 3 |
| 15 | 19.05-25.05 | Final lesson | 3 |