4.1. Title: **Probabilistic basis of method of imitation modeling**

(system analysis)

4.2. Annotation of the academic subject: the discipline includes imitation modeling of main probabilistic distributions. It also includes learning of main algorithms and application methods. Special attention has been paid to building of generators of basic random variables and their further verification in accordance to all demands to such generators. The second main part is application of main generators in algorithms of classic and non-classic distributions and, finally, solving of applied problems.

4.3. Type: discipline of the free choice of the student (in blocks)

4.4. Duration: $8^{th}$ semester

4.5. Number of credits: 2 credits

4.6. Lector's full name: associate professor Myhaylo M. Sharapov.

4.7. The goal of the academic subject: the deep learning of methods of imitation modeling, ability to treat with main imitation models and using all gained knowledge and past experience in practice.

4.8. The prior requirements: basic foundation of programming, probability theory and mathematical statistics basic concept.

4.9. Professing methods: lections.

5.0. Rating methods: module-rating system. Each semester results are estimated over 100-poits scale. The education ends by test.

5.1. Language: Ukrainian/English.