4.1. Title: **Methods of estimation and recognition of stochastic systems** (system analysis)

4.2. Annotation of the academic subject: this material of this course consists of new methods of estimation and optimization of stochastic systems, developed on the basis of the modern theory of stochastic analysis, statistical decision making, stochastic optimization, and their application in many areas of science and technology. The developed methods allow specialists to study the working mechanisms of different financial, technological, social, economical systems, and to predict their possible future state.

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

4.4. Duration: 8^{th} semester

4.5. Number of credits: 1

4.6. Lector's full name: professor Pavel S.Knopov

4.7. The goal of the academic subject: deep learning of methods of estimation of unknown parameters, recognition and prediction for stochastic systems; application of theoretical methods in practice.

4.8. The prior requirements: discrete mathematics, probability theory and mathematical statistics, theory of optimization, functional analysis.

4.9. Professing methods: lections.

5.0. Rating methods: module-rating system. Each semester results are estimated over 100-poits scale.

5.1. Language of teaching: Ukrainian.