**The name of the academic discipline:**

**“Systems analysis and machine modeling”**

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| **Specialty code and name** | 1-40 01 01 Information Technology Software |
| **Year of study** | 4 |
| **Semester of study** | 7 |
| **Number of in-class academic hours:** | 44 |
| **Lectures****Seminar classes** **Practical classes****Laboratory classes** | 24 |
| - |
| - |
| 20 |
| **Form of the current assessment (*credit/ graded credit /exam*)** | exam |
| **Number of credit points** | 3 |
| **Competences** | Apply the principles of systems analysis and methods of modeling complex systems in professional activities. |
| **Summary of the academic discipline:**Queueing systems (QS). Construction and analysis of discrete-stochastic model. Continuous-stochastic models. Construction and study of Markov models of QS. Study of non-Markov QS. Mathematical foundations of simulation modeling. Methodology of constructing a simulation model. Modeling of random numbers. Planning of machine experiments. Processing of modeling results. Software tools for automation of modeling. |