**The name of the academic discipline:**

**“Numerical Methods”**

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| **Specialty code and name** | 6-05-0612-01 Software Engineering |
| **Year of study** | 2 |
| **Semester of study** | 3 |
| **Number of in-class academic hours:** | 50 |
| **Lectures**  **Seminar classes**  **Practical classes**  **Laboratory classes** | 26 |
| - |
| - |
| 24 |
| **Form of the current assessment (*credit/ graded credit /exam*)** | exam (3 semester) |
| **Number of credit points** | 3 |
| **Competences** | As a result of studying the academic discipline “Numerical Methods”, the following competencies are formed:  ***universal:*** to possess the skills of creative analytical thinking;  ***basic professional:*** to choose effective algorithms of computational mathematics for solving a given professional task, to interpret and analyze the results of its solution. |
| **Summary of the academic discipline:**  ***The purpose*** of the academic discipline: mastering various methods of numerical solution of classical model problems of applied mathematics and mathematical physics, as well as methods for estimating the errors of calculation results.  ***The contents of the educational material***  Section 1. Theoretical foundations of numerical methods. Fundamentals of the theory of errors  Section 2. Numerical methods of linear algebra  Section 3. Methods of interpolation and approximation of functions  Section 4. Solution of nonlinear equations  Section 5. Numerical integration and differentiation  Section 6. Numerical methods for solving differential equations and systems | |