**The name of the academic discipline:**

**“Embedded Systems Software”**

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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:** | 42 |
| **Lectures**  **Seminar classes**  **Practical classes**  **Laboratory classes** | 22 |
| - |
| - |
| 20 |
| **Form of the current assessment (*credit/ graded credit /exam*)** | credit |
| **Number of credit points** | 3 |
| **Competences** | Mastering the academic discipline "Embedded Systems Software" should ensure the formation of competence in the use of modern automated design, modeling and verification systems for hardware and software projects for the development and operation of embedded systems. |
| **Summary of the academic discipline:**  The course "Embedded Systems Software" is aimed at developing stable theoretical knowledge and practical skills in the field of development and operation of embedded systems using modern automated design complexes, modeling and verification of hardware and software projects. The course covers architectural principles and internal organization of microcontrollers, principles of designing embedded systems using microcontrollers, principles of designing software for microcontrollers, principles of interaction between microcontrollers and external devices, principles of data transfer via embedded system interfaces, trends in the development of modern embedded system technologies and microcontroller technology. | |