**The name of the academic discipline:**

**“Fundamentals of Modeling in Sports”**

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| **Specialty code and name** | 7-06-1012-01 Physical Education and Sports |
| **Year of study** | 1 |
| **Semester of study** | 1 |
| **Number of in-class academic hours:** | 32 |
| **Lectures**  **Seminar classes**  **Practical classes**  **Laboratory classes** | 16 |
| - |
| 16 |
| - |
| **Form of the current assessment (*credit/ graded credit /exam*)** | exam |
| **Number of credit points** | 3 |
| **Competences** | Possess skills in biomechanical modeling in sports. |
| **Summary of the academic discipline:**  Modern tasks of physical education and sports training include precise planning of the volume of physical activity in a single session, microcycle, mesocycle and macrocycle of training sessions; frequency of its repetition; technical improvement of athletes; determination of the prospects of individual athletes in specific sports. To solve such complex problems, it is necessary to have mathematical models that reflect the behavior of the body when certain effects are presented to it. Analysis of such models, taking into account the initial and boundary conditions of the proposed problem, will make it possible to predict the result of athletes' training activities with a certain degree of accuracy.  In the curriculum of the specialty, the discipline "Fundamentals of Modeling in Sports" refers to the cycle of disciplines "Component of an Institution of Higher Education", disclosed in the module "Theoretical and Methodological Aspects of Physical Education and Sports Training".  The discipline is aimed at preparing a master's student for the practical application of sports activity models for the purpose of using them in their scientific and pedagogical activities. | |