

## **Abstract work program to directly credit module "Biomedical Engineering"**

*The purpose of the credit module is the formation of students' abilities:*

- geometric modeling and computer methods of instrumentation products;
- construction and design of engineering drawings and schemes according to existing standards;
- using in his professional Activities information - designing systems.

### **The main tasks of the loan unit.**

According to the requirements of the program of the course students after mastering credit module should demonstrate the following learning outcomes:

#### ***knowledge:***

- basic principles of geometric modeling objects;
- projection methods of construction and study of spatial objects at their flat images on the drawings;
- the requirements of existing state, interstate and international standards applicable in the territory of Ukraine and are used in the construction of technical documentation for instrument industry;
- capabilities of modern graphics editors for modeling objects, execution and editing their pictures and drawings, as well as preparation of design and technological documentation;
- with basic training and information graphically to target professional profile of the faculty.

#### ***the ability to:***

- perform image projection and read any geometric and technical objects;
- use drawings as flat geometric model of the object on which to explore the same geometric parameters and the real product;
- analyze and to search for the optimal solution for solving problems in complex drawings;
- draw up design documents according to the requirements of existing standards;
- perform design and engineering documents using CAD systems;
- apply knowledge of computer graphics, modern information technologies in the study of other disciplines and future careers;
- create and use drawings in various stages of design.

#### ***experience:***

- perform a sketch by hand and drawings using drawing tools as well as computer-aided design;
- work with project information and means;
- information management information and technical means;
- possession and use appropriate terminology reference books.