

Educational component IO20 of the F-catalogue

| Discipline | Basics of Design and Engineering |
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| Course | 3, autumn semester |
| Amount | 3 ECTS credits (90 hours) |
| Language of teaching | Ukrainian |
| Department | Applied hydroaeromechanics and mechatronics |
| Teacher | Zilinskyi Andrii Ivanovych |
| Requirements for starting studies | Successful mastery of the knowledge and skills obtained in the study of disciplines "Engineering and Computer Graphics", "Computer Science", "Metrology, Standardization and Certification". |
| What will be studied | General principles of modeling in SolidWorks. Typical 3D elements. Creating elements from sections, kinematic elements, creating 3D models from flat drawings. Building parametric models. Creating assemblies. Create associative drawings. Additional modeling capabilities. |
| Why is it interesting/should be studied? | Computer systems of three-dimensional modeling are used at all modern enterprises for automation of technological processes of product design, presentations and demonstrations, architectural design, etc. Computer practice allows you to easily master the modern computer system of three-dimensional modeling "SolidWorks", learn how to create parts of varying complexity, passing the way from idea to prepare files for production and visualize for demonstration. |
| Why you can learn (learning outcomes) | Practically master 3D modeling software SolidWorks. Learn to create 2D sketches and build 3D models based on them. Create assemblies of three-dimensional parts. Draw up technical documentation according to GOST. |
| How to use acquired knowledge and skills (competencies) | Use three-dimensional modeling systems in the design of various structures and their components, design documentation. |
| Occupation | Lectures, practical classes. |
| Information support | Textbooks, teaching aids. |
| Individual semester assignments | GW |
| Current control | Performance of laboratory works, modular control work, etc. |
| Semester control | Exam |