

## **Computer Aided Technologies**

**Specialities:** 131 Applied Mechanics; 133 Industrial Machinery Engineering; 134 Aerospace Engineering; 141 Power Engineering, Electrical Engineering and Mechanics; 142 Power Engineering; 274 Automobile Transport

| Level of Higher<br>Education | first level (short cycle) of Higher Education  |                   |                          |
|------------------------------|--|-------------------|--------------------------|
| <b>Course Status</b>         | student's choice / 7 <sup>th</sup> semester  |                   |                          |
| Scope of discipline          | 150 hours / 5 ECTS credits: lectures (32 hours), laboratory work (32 hours), student self-study (86 hours)   |                   |                          |
| Language                     | Ukrainian / English  |                   |                          |
| Annotation                   | <ul> <li>The course will cover the following topics:</li> <li>Basic design technologies in CAD SolidWorks</li> <li>Theoretical foundations of three-dimensional modeling.</li> <li>Creation and editing of sketches of a solid model in the SolidWorks graphics editor.</li> <li>Creation and editing of a solid model in the SolidWorks graphics editor.</li> <li>Advanced Design Technologies in SolidWorks CAD</li> <li>Reference geometry.</li> <li>Special modeling methods.</li> <li>Multibody and derived parts.</li> <li>Part configuration.</li> <li>Measuring and editing the model.</li> <li>Topics of laboratory classes:</li> <li>Revolved elements and extruded elements.</li> <li>Lofted elements.</li> <li>Solonding.</li> <li>Array elements.</li> <li>3D sketch.</li> <li>Multibody parts.</li> <li>Design tables.</li> <li>The equation.</li> </ul> |                   |                          |
| Prerequisites                |  |                   |                          |
| Department                   | Technology of Aircraft Manufacturing (104)   |                   |                          |
| Faculty                      | Aircraft Engineering   |                   |                          |
| Teacher                      |  | Name              | Oleksiy Pavlenko         |
|                              |  | Position          | Associate Professor      |
|                              |  | Academic title    | -                        |
|                              |  | Scientific degree | PhD                      |
|                              |  | e-mail            | alexey.pavlenko@khai.edu |
|                              | https://mentor.khai.edu/course/view.php?id=714   |                   |                          |