




Computer Aided Engineering of Technological Processes

Minor «Perspective technologies in aircraft manufacturing»

Level of Higher Education	first (Bachelor)		
Course Status	student's choice		
Scope of discipline	150 hours / 5 ECTS credits		
Language	Ukrainian / English		
What will be studied (subject of study)	Formulation of the research problem. Stages of computer simulation. Building a model of the process under study. Determination of properties and models of materials. Building discrete models: splitting models into finite elements (volumes). Calculation of the research problem. Analysis of the results. Visualization of research results		
Why is it interesting/should be studied (goal)	The study of the discipline provides students with knowledge and trains the skills of building finite element models, formulating the physical limiting and initial conditions of processes. They develop the ability to create computer models and calculate the characteristics of technological actions with their help		
How can you use the acquired knowledge and skills (competencies)	<p>Ability to communicate in the state language both orally and in writing.</p> <p>Skills in the use of information and communication technologies.</p> <p>Ability to work in a team.</p> <p>The ability to generate new ideas (creativity).</p> <p>Ability to learn and master modern knowledge.</p> <p>The ability to develop and implement technological processes for the production of parts and objects of aviation equipment.</p> <p>Ability to use the latest embedded computer technologies in the creation (production) of aviation equipment</p>		
Organization of training	<p>Types of classes: lectures, laboratory, practical</p> <p>Forms of education: full-time / part-time</p> <p>Forms of control: pass</p>		
Department	Technology of Aircraft Manufacturing (104)		
Faculty	Aircraft Engineering		
Teacher		Name	Olga Shypul
		Position	Associate Professor
		Academic title	Docent
		Scientific degree	PhD
		e-mail	o.shipul@khai.edu
Links to course materials	<p>1. Інженерний аналіз елементів технологічного оснащення з використанням системи COSMOSWorks: навч. посібник до лабораторного практикуму / О.А. Павленко, В.Є. Зайцев, В.В. Борисевич; Х.: Нац. аерокосм. ун-т «Харк. авіац. ін-т», 2008. – 54 с</p> <p>2. Гліненко, Л.К. Основи моделювання технічних систем: Навч. посібник/ Л.К.Гліненко, О.Г. Сухоносів. – Львів: Бескид Біт, – 2003. – 176 с.</p> <p>3. Стеценко, І.В. Моделювання систем: навч. посібник/ І.В. Стеценко.– Черкаси: ЧДТУ, 2010.– 399 с.</p> <p>4. https://cadfem.com.ua/materials/</p> <p>5. https://www.cadfem.com.ua/ru/aviatsionnaya-promyshlennost/</p>		
Link to work program (syllabus)	https://khai.edu/assets/files/silabusi/Minor/104/rp_b_134_Computer_Aided_Engineering_of Technological Processes_minor.pdf		