Discipline

Development of Databases in Python

Higher Education Level	*first (bachelor)*
Status of Discipline	*selective*
Volume	150 hours / 5 credits ECTS
Language	*English*
Subject of studying	The task of studying the discipline is the formation of the acquirers of professional knowledge and practical skills in the theoretical foundations of building databases and database management systems (DBMS), the Python programming language and the language of structured SQL queries, formal database description, modern database development technologies in integrated design environments (IDE)
Why it is interesting/should be studied (purpose)	The goal of the educational discipline is for students to master the basic principles of building databases and programming access to them based on the popular and widely used Python language
How to use acquired knowledge and skills (competencies)	1. The ability to use the latest technologies in the field of automation and computer-integrated technologies to solve professional tasks, in particular, the design of multi-level control systems, data collection and their archiving to form a database of process parameters and their visualization using human-machine interface tools. 2. The ability to justify the choice of a technical structure and to be able to develop application software for digital control systems based on local automation tools, industrial logic controllers. 3. The ability to freely use modern computer and information technologies to solve professional tasks, to program and use applied and specialized computer-integrated environments to solve automation problems. 4. Ability to apply knowledge of a foreign language for familiarization with documentation for software products and development of application software. 5. Ability to search, process and analyze information from various sources.
Prerequisites	Prerequisites for studying this discipline: Basics of algorithmization and programming. Object-oriented program design.
Co-Requisites	The discipline supports the following courses: Automation of information and control processes.
Type of classes, Testing	Types of classes: lectures, laboratory classes Forms of obtaining education: full-time, part-time Forms of testing: exam
Department	301 – Aircraft Control Systems

<table>
<tr><td>Faculty</td><td colspan="3">№ 3 – Aircraft Control Systems</td></tr>
<tr><td>Teacher</td><td></td><td>Name</td><td>Olena Havrylenko</td></tr>
<tr><td></td><td></td><td>Position</td><td>Docent of dept. 301</td></tr>
<tr><td></td><td></td><td>Academic status</td><td>Docent</td></tr>
<tr><td></td><td></td><td>Degree</td><td>Candidate of technical science</td></tr>
<tr><td></td><td></td><td>e-mail</td><td>o.havrylenko@khai.edu</td></tr>
<tr><td>Links to electronic course materials</td><td colspan="3">https://mentor.khai.edu/course/view.php?id=8882</td></tr>
<tr><td>Link to the syllabus</td><td colspan="3">https://khai.edu/files/uploads/vibirkovi/bakalavri/div1-2024/s_b_nmk-2_development-of-db-in-python_div-1.pdf</td></tr>
</table>