Digital platforms in engineering research

Status	Selective
Department	Agroengineering
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Contact information	Classroom 216m
	Consultation time – every Thursday from 12:00 to 14:00,
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Course objective	Formation of knowledge in future PhDs on theoretical and practical aspects of using digital platforms for engineering research in the agricultural sector. Providing competencies in the selection, application and integration of digital tools for optimizing agricultural technologies, analyzing processes and introducing innovations into agricultural production.
Main tasks	acquiring knowledge and skills in creating digital models of technological processes, collecting, analyzing and visualizing information obtained from sensors to monitor the condition of fields and technical equipment.
As a result of	f studying the discipline, the student should
know	- Principles of functioning and interaction of digital platforms for engineering research in the agricultural sector.
	- Methods of collecting data on agricultural systems and their analysis.
	- Rules for building interaction between different digital platforms and programs.
	- Technologies for simulating agricultural processes and forecasting under conditions of variable factors.
be able to	 Apply digital platforms for collecting, analyzing and visualizing data from the agricultural sector. Develop 3D models for studying technical processes in agriculture. Integrate multi-platform digital systems to optimize agricultural production. Perform simulations and assess the effectiveness of agricultural technologies using engineering digital tools.