

## DESCRIPTION OF THE EDUCATIONAL PROGRAMME CONDUCTED IN THE ALTERNATIVE (INTENSIVE) MODE OF STUDY (IFK<sup>1</sup>)

<b>Name of IFK</b>	SPECIALIST IN AGRICULTURAL AND FOOD ENGINEERING IN THE CONTEXT OF GREEN AND DIGITAL TRANSFORMATION (TWIN TRANSITION)
<b>Qualification title</b>	SPECIALIST IN AGRICULTURAL AND FOOD ENGINEERING IN THE CONTEXT OF GREEN AND DIGITAL TRANSFORMATION
<b>Level of the Polish Qualifications Framework (PQF)</b>	Second stage of the PQF at levels 6-7 of the PQF
<b>Reference to the level of the Sectoral Qualifications Framework (SQR)</b>	6-7 SQR
<b>Level of education, educational profile</b>	GENERAL ACADEMIC
<b>Form of IFK</b>	IN-PERSON
<b>Duration of the IFK</b>	60 hours
<b>Number of ECTS credits</b>	4
<b>Form of completion of the IFK</b>	Final written exam
<b>Document awarded to the graduate</b>	IFK Completion Certificate in the form of a micro-credential
<b>Assignment to an ISCED classification subgroup</b>	072 Production and Processing subgroup 081 Agricultural subgroup
<b>Scientific discipline to which the learning outcomes relate</b>	ENVIRONMENTAL ENGINEERING, MINING AND ENERGY MECHANICAL ENGINEERING
<b>Description of the qualification</b>	Qualifications aligned with the Sectoral Qualifications Framework
<b>Learning outcomes required for the qualification</b>	The graduate knows and understands:

<sup>1</sup> IFK – Alternative Mode of Study (from Polish: *Inne Formy Kształcenia*)

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- modern technologies, processes, and methods used in agricultural and food sciences, including current research and development trends, particularly in the areas of green and digital transformation;
- the principles of operation of technological and biological systems in the context of sustainable development, eco-energy, circular economy, food safety, and environmental protection;
- an in-depth level of relationships between biological, chemical, technological, and economic factors influencing the efficiency of processes in agriculture and the food industry;
- methods and theories of data acquisition, analysis, and interpretation as well as principles of risk assessment, quality evaluation, and innovation in technological solutions.

The graduate is able to:

- independently identify, analyse, and solve technological, environmental, and organisational problems in agriculture and food processing, using interdisciplinary knowledge;
- select, apply, and critically evaluate modern methods, research tools, and technologies used in the agri-food economy and food analysis, including in the field of eco-energy and the circular economy;
- develop, analyse, and interpret experimental or production data using IT, statistical, and digital tools, drawing justified practical conclusions;
- prepare a report or presentation of research results and effectively argue their position in discussion using up-to-date knowledge

The graduate is ready to:

- critically assess their own knowledge and the impact of their professional activities on the environment, health, and society and to adhere to the principles applicable in their professional field
- effectively cooperate in an interdisciplinary team, communicate with representatives of various sectors (agriculture, industry, administration), and initiate actions for the public interest.

<p><b>Rights and entitlements associated with the qualification (graduate profile)</b></p>	<p>A graduate of the intensive mode of study “SPECIALIST IN AGRICULTURAL AND FOOD ENGINEERING IN THE CONTEXT OF GREEN AND DIGITAL TRANSFORMATION” acquires partial qualifications, skills, and competences at the intersection of modern agricultural technologies, food processing, environmental engineering, and the circular economy. At the same time, the graduate is capable of critically assessing and implementing innovations while taking into account real technological, economic, and environmental constraints related to green and digital transformation. The IFK programme, adjusted to the participants’ initial level, provides interdisciplinary education combined with specialised knowledge in agricultural and food engineering. It prepares graduates to creatively address professional tasks in the context of sustainable environmental management, while applying modern methods and theories of data acquisition, analysis, and interpretation.</p>
<p><b>Information on beneficiaries, entry requirements, and recruitment rules</b></p>	<p>The intensive short-term mode of study in the fields of agricultural and food engineering in the context of green and digital transformation concerns activities addressed to Project Participants. A Project Participant may be a student with either a foreign or Polish university affiliation, including a student in the final two semesters of first-cycle, second-cycle, or long-cycle Master’s degree studies, as well as a doctoral student or an academic teacher holding at least a doctoral degree, who has signed a declaration of participation in the project. Detailed entry requirements are specified in the regulations for recruitment and participation in the project “Spinaker – Intensive International Education Programmes 2024” No. BPI/SPI/2024/1/00047/U/00001, implemented by the University of Life Sciences in Lublin, entitled “Specialist in Agricultural and Food Engineering in the context of Green and Digital Transformation (Twin Transition)”.</p>
<p><b>Justification of labour market demand for the qualification</b></p>	<p>The graduate will possess in-depth knowledge in the field of testing and analysis of raw materials, the implementation of technological processes, and the production of goods in the context of the requirements of green and digital transformation. In this regard, the graduate will be familiar with modern technologies and, through their application, will acquire skills related to the acquisition and processing of raw materials, as well as knowledge enabling the organisation and supervision of</p>



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	various stages of production. The graduate will be able to apply innovative solutions in the organisation of technological processes, logistics, and management, in accordance with the requirements of the “twin transition”. In their professional activities, the graduate will adhere to appropriate health and safety standards and will be guided by the principles of ethics and responsibility.
<b>Typical opportunities for the application of the qualifications (typical workplaces)</b>	Employment prospects: enterprises engaged in agricultural and food production, central and local government administration units, inspection and monitoring institutions, research and educational institutions, non-governmental organisations related to sustainable development, and self-employment.
<b>Reference to related qualifications</b>	no data
<b>Differences compared to other programmes at the University</b>	In Poland, there is no specialised form of education that combines agricultural and food engineering in the context of green and digital transformation. Programmes covering this subject area are offered at other universities, including the University of Life Sciences in Lublin, often providing similar content through separate study programmes, including postgraduate courses, which are not as interdisciplinary in nature. These programmes do not integrate sustainable development considerations in a manner that can be implemented through the IFK formula. Examples of such study programmes include Agrotechnics, Production Management and Engineering, and Industrial Informatics.
<b>Alignment with the University’s mission and development strategy</b>	The establishment of the IFK “SPECIALIST IN AGRICULTURAL AND FOOD ENGINEERING IN THE CONTEXT OF GREEN AND DIGITAL TRANSFORMATION” is in line with the University’s Development Strategy for years 2019–2030 (Resolution No. 66/2018-2019 of the Senate of the University of Life Sciences in Lublin of 24 May 2019), which provides for “ <i>launching new study programmes consistent with the University’s mission and the current labour market needs</i> ”. The implementation of this strategy is to include, among other things, “ <i>the creation of integrated study programmes.</i> ” The proposed programme meets this criterion, as it is assigned to two scientific disciplines: Environmental Engineering, Mining and Energy, and Mechanical

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	<p>Engineering, requiring the involvement of staff with diverse qualifications. Moreover, the University's strategy is aimed at ensuring the highest quality of education through enriching and diversifying the educational offer, using modern methods, solutions, and technologies in teaching, and enhancing the quality of didactics across the University's activities. Among the strategic objectives of the University are <i>the systematic improvement of the quality and effectiveness of education through the concentration of research and implementation potential, staff training, the development and expansion of the educational offer in response to the needs of the economy and administration, and the development of international cooperation.</i> The launch of the intensive mode of study SPECIALIST IN AGRICULTURAL AND FOOD ENGINEERING IN THE CONTEXT OF GREEN AND DIGITAL TRANSFORMATION at the Faculty of Production Engineering of the University of Life Sciences in Lublin will enable the enhancement of competencies related to the dynamically developing sectors of the food economy in the context of the Farm to Fork concept aimed at minimizing pollution. The proposed study programme incorporates a range of innovative and novel teaching solutions, offering a wide range of mandatory courses, which will ensure that graduates acquire a high level of qualifications essential for professional work.</p>
<b>Information on the use of international models</b>	<p>Green Digital Engineering – Hochschule Weihenstephan-Triesdorf (Germany) Inspire – Digital Technologies in the Food System – EIT Food (Ireland)</p>
<b>Date of inclusion of the qualification in the Integrated Qualifications Register</b>	<p>not applicable</p>
<b>Qualification code in the Integrated Qualifications Register</b>	<p>not applicable</p>
<b>Names of employers whose opinions have been attached</b>	<p>GREENLAND TECHNOLOGIA EM Sp. z o.o. and Jedność Sp. z o.o.</p>

