The description of the assumed learning outcomes for level 7 of Polish Qualifications Frame

second-cycle studies

**KNOWLEDGE**

1. Has wide knowledge from the field of Biology and related sciences, referring to processes of agricultural raw materials production and their quality including the materials' usability for production.
2. Has deepened economic, legal and social knowledge allowing for describing and analysing production processes in nature; has broad knowledge about management, including quality management, project management, strategic management and pursue economic activity in the field of bioeconomy.
3. Has deepened knowledge of the impact of mechanized agricultural technologies and the processes in biosphere on the environment and properties of agricultural raw materials.
4. Has broadened knowledge in the field of technology which enables them to asess, shape and rationally exploit nature's potential.
5. Shows understanding of the rules of balanced development and knowledge in the field of implementing integrated production processes during the increase of labour mechanisation.
6. Has broadened knowledge about essential factors and conditions which determine the shaping of rural areas.
7. Knows the rules of creating and developing forms of individual business in rural areas; understands the terms and rules of intellectual property protection and copyright in the field of agricultural and related sciences; can use patent information resources and quote these resources.
8. Has knowledge about the essence of the concept and rules of implementing balanceed economic development in the aspect of the life cycle of a device, object or system operation.
9. Has knowledge about regulations, directives and recommendations of the European Union which regulate the functioning of economic operators and the flow of goods, services and people within the European single market.

**SKILLS**

1. Has the skill of searching for, understanding, analysing and using necessary information from different sources and in different appropriate forms of Management and production Engineering
2. Has the skill of precise communication with different subjects in verbal, written and graphic form in order to obtain and process information from the fields of agricultural and agri-food production.
3. Has the skill of learning and using modern information technologies in order to obtain and process information from the fields of agricultural, agri-food, industrial production and providing services.
4. Plans and independently (using available methods and techniques) carries out tasks in the form of a research or project concerning bioeconomy; can interpret results correctly and draw conclusions..
5. Can choose proper methods and tools to describe and analyse problems and areas of organisation's activity and its surroundings; is able to assess the usefulness and effectiveness of the methods.
6. Has language skills in the field of science and scientific disciplines adequate for the course Management and Production Engineering meeting the demands set for b2+ level of CEFR.
7. Can choose and modify actions and procedures using proper methods, techniques, technologies, tools and materials in order to solve current problems in the fields of production processes in agriculture, agri-food industry, condition of the environment, management of human and natural resources.
8. Independently and in a variety of aspects identifies and analyses phenomena influencing agricultural production processes, condition of the environment and natural resources and can define and use techniques and technologies typical for these processes.
9. Has the ability of independent, insightful and multi-variant analysing (also theoretically) encountered situations and undertaken actions in order to solve already existing or anticipated problems in the field of Management and Production Engineering.
10. Has the skill of writing a report relating the course of events and preparing typical written work, also in a foreign language, in the field of Production Engineering.

**SOCIAL SKILLS**

1. Is prepared as organiser and leader of teamwork (for projects and tasks); is prepared to be organised both in a workplace and out of it, is aware of the responsibility to their colleagues for undertaken tasks.
2. Can move within the labour market and correctly set priorities for realising tasks set by themselves or others.
3. Can independently obtain and improve knowledge as well as professional and research skills; can effectively inspire others to do so.
4. Is aware of ethical conduct within specified organisational and social roles.
5. Is aware of the importance and understands extra-technical aspects of engineering activity, including its impact on the environment, production of high quality food, animal welfare and consequently the responsibility for undertaken actions.
6. Can think and act in an entrepreneurial way and understands constant need for self-study and inspiring others.
7. Is aware of risk and can assess the consequences of undertaken action in the field of broad bioeconomy.