Annex 1 to Resolution no. 76/2018-2019

of the Senate of the University of Life Sciences in Lublin as of 24 May 2019

**Description of the outcomes of learning for a field of study**

**Field of study:** Management and Production Engineering

**Level: first-cycle studies**

**Profile: general**

**An academic discipline or disciplines to which the outcomes of learning apply:**

**leading academic discipline (%): Mechanical Engineering (82.3) other academic disciplines (%): management and quality sciences (17.7)**

The description of the outcomes of learning takes into account the universal characteristics of first-cycle studies, level 6, specified in the Act of 22 December 2015 on the Integrated Qualifications System (Dz.U./Journal of Laws/ of 2016 item 64 and 1010, as amended) and the characteristics of the outcomes of learning of second-cycle studies, level 6, specified in the regulations issued based on Art. 7 sec. 3 of the aforementioned Act.

Characteristics of the outcomes of learning for the qualifications at Polish Qualifications Framework, level 6

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| --- | --- | --- |
| Symbols of outcomes  of learning  for the field of studies | Outcomes of learning | Reference to characteristics of the  second-cycle studies  the learning outcomes  Polish Qualifications Framework |

**KNOWLEDGE**

**the graduate knows and understands:**

|  |  |  |
| --- | --- | --- |
| ZI\_W01 | issues related to mathematics, physics, and chemistry that are useful to formulate and solve simple tasks in the field of Management and Production Engineering | P6S\_WG |
| ZI\_W02 | economic, legal and social issues that enable to describe and analyse processes of production and the rational management of goods and services appropriate to the field of study of  Management and Production Engineering | P6S\_WK |
| ZI\_W03 | technical and physical foundations and chemical processes adapted for the field of study of Management and Production Engineering | P6S\_WG |
| ZI\_W04 | the life cycle of devices, objects, technical systems and industrial products and the influence of technology on the quality of raw materials and products, including multifaceted knowledge of methods that are used to determine occupational risks for the users of  technical facilities and risks for the environment | P6S\_WG |
| ZI\_W05 | issues related to technical knowledge in the field of Management and Production Engineering that are necessary to understand basic phenomena and technical processes | P6S\_WG |
| ZI\_W06 | principles of sustainable development; the student demonstrates the knowledge in the field of implementation of integrated production processes | P6S\_WG |
| ZI\_W07 | norms and rules of social structures and institutions in terms of functioning and development; the student knows the principles of  operation of enterprises and relations among them | P6S\_WK |
| ZI\_W08 | issues related to management including the creation and development of forms of entrepreneurship; the student knows and understands the basic concepts and principles in the field of industrial property protection and copyright and is able to use the patent information system | P6S\_WK |
| ZI\_W09 | social, economic, legal and other non-technical conditions of engineering activities | P6S\_WK |
| ZI\_W10 | processes of production of raw materials, their quality and suitability for production | P6S\_WG |
| ZI\_W11 | standardised methods and tools of information technology to collect, analyse and present economic and social data in the field of Management and Production Engineering | P6S\_WG |
| ZI\_W12 | trends and methods of research related to particular areas of activities of companies: market research, financial analysis, levels of product quality, etc. | P6S\_WG |
| ZI\_W13 | issues related to materials, processes of production, production management, transport and services, entrepreneurship, quality management, finance and accounting | P6S\_WG |
| ZI\_W14 | basic methods, techniques, tools and materials that are used to solve simple engineering tasks in the field of production systems engineering in selected industries | P6S\_WG |

**SKILLS, the graduate can:**

|  |  |  |
| --- | --- | --- |
| ZI\_U01 | use information obtained from various sources - also in a foreign language - to prepare own works with respect to copyright | P6S\_UW P6S\_UK |
| ZI\_U02 | use basic available information technologies to obtain and process information in the field of agricultural and agri-food production; the student is able to use the acquired knowledge to resolve issues and communicate | P6S\_UW |
|  | regarding problems arising at work including those related to technological and logistical processes |  |
| ZI\_U03 | prepare, with the assistance of a research supervisor, analyses and projects related to Management and Production Engineering | P6S\_UW |
| ZI\_U04 | undertake standard engineering activities with the use of appropriate methods, techniques, technologies, tools and materials to solve current problems related to production processes in agriculture and agri-food processing, services, the condition of the environment, management of human, financial and natural resources | P6S\_UW |
| ZI\_U05 | analyse chemical and physical processes, identify and prepare a standard analysis of the phenomena that affect processes of production, the state of the environment and natural resources; the student is able to identify and apply techniques and technologies typical of those processes | P6S\_UW |
| ZI\_U06 | independently undertake engineering business activities, recognising their systemic and non-technical aspects; the student has the ability to self-educate | P6S\_UW P6S\_UU |
| ZI\_U07 | develop an engineering project in the field of Management and Production Engineering, prepare and deliver a presentation that contains a summary of the results of the implementation of the project, both in Polish and in a foreign language, in accordance with the requirements specified for the B2 level of the Common European Framework of Reference for Languages | P6S\_UW P6S\_UK |
| ZI\_U08 | use: tools, norms and standards in the processes of planning, organising, motivating and controlling the quality as well as health and safety at work, etc. in agricultural, agri-food and industrial production | P6S\_UW |
| ZI\_U09 | use specialised knowledge related to Management and Production Engineering to communicate with various entities and professional groups verbally, in writing and with the use of graphic forms | PS6\_UW P6S\_UK |
| ZI\_U10 | apply health and safety regulations at work, manage personnel and finances | P6S\_UW P6S\_UO |
| ZI\_U11 | design new and supervise existing operational and production processes and systems taking into account ecological aspects | P6S\_UW |

**SOCIAL COMPETENCES, the graduate is prepared to:**

|  |  |  |
| --- | --- | --- |
| ZI\_K01 | work in a team, is able to organise and supervise the work of groups of people (projects, tasks, etc.) in a working environment | P6S\_KK |
| ZI\_K02 | set priorities, communicate at work and outside of the workplace and convey the knowledge with the use of various media (in a mother tongue and a foreign language) | P6S\_KO |
| ZI\_K03 | move around in the labour market, define priorities for the implementation of various tasks and understands the need to acquire knowledge in an independent way, has professional and research skills, is able to inspire other people to improve professional, personal and social competencies regardless of the age of those people | P6S\_KK |
| ZI\_K04 | demontrate ethical behaviour within assigned organisational and social roles, is able to take responsibility for assigned tasks | P6S\_KR |