

Description of the outcomes of learning for a field of study

Field of study: Management and Production Engineering

Level: second-cycle studies

Profile: general

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

leading academic discipline (%): mechanical engineering (70%) other

academic disciplines (%): management and quality sciences (30%)

The description of the outcomes of learning takes into account the universal characteristics of first-cycle studies, level 7, 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 7, 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 7

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

the graduate knows and understands:

ZI_W01	to an in-depth degree issues in the field of biology and related sciences such as production processes of raw materials and their quality including the suitability for the manufacture of products with the use of those materials	P7S_WG
ZI_W02	economic, legal and social issues that enable the description and analysis of the processes of production; the student has the knowledge of management including quality management, project management, strategic management and business management	P7S_WG
ZI_W03	to an advanced degree issues related to the influence of mechanised technologies and the processes that take place in the biosphere on the environment and the properties of raw materials	P7S_WG
ZI_W04	extended issues in the field of technique and technology that help to assess, shape and use the potential of nature in a rational way	P7S_WG

ZI_W05	to an in-depth degree issues related to the principles of sustainable development and the knowledge in the field of implementation of integrated production processes in the conditions of the increasing degree of mechanisation of work	P7S_WG
ZI_W06	extended principles of creating and developing forms of individual entrepreneurship in rural areas; the student understands the concepts and principles of protection of intellectual property and the copyright law in the field of agricultural sciences and related sciences; the student is able to use the patent information system and quote relevant extracts	P7S_WK
ZI_W07	to an in-depth degree issues related to the essence of the concept and principles of implementation of sustainable economic development in terms of the life cycle of a device, object or system operation	P7S_WG
ZI_W08	legislation, directives and recommendations of the European Union that regulate the functioning of economic entities and the movement of goods, services and people within the single European market	P7S_WK

SKILLS, the graduate can:

ZI_U01	to an in-depth degree find, analyse and use necessary information from various sources and in various forms appropriate for Management and Production Engineering	P7S_UW
ZI_U02	communicate with various kinds of entities verbally, in writing and with the use of graphic forms to obtain and process information in the field of agricultural production and agri-food production	P7S_UW
ZI_U03	explore and apply modern information technologies to acquire and process information in the field of production and provision of services	P7S_UW
ZI_U04	plan and independently perform, based on available methods and techniques, various research and design tasks related to economy; the student can interpret the results and draw conclusions in a correct way	P7S_UW
ZI_U05	select appropriate methods and tools to describe and analyse problems and areas of activity of an organisation and its environment; the student is able to assess their usefulness and effectiveness	P7S_UW
ZI_U06	use a foreign language at the B2+ level of the Common European Framework of Reference for Languages in speech and writing in everyday situations and in the professional environment, read with understanding and analyze foreign source texts in the field of the represented scientific discipline	P7S_UK
ZI_U07	to an advanced degree select and modify activities and procedures with the use of appropriate methods, techniques, technologies, tools and materials to solve current problems concerning: processes of production in agriculture, agri-food industry, condition of the environment, management of human and natural resources	P7S_UW P7S_UO
ZI_U08	identify and analyse, independently and in a multifaceted way, the phenomena that affect processes of agricultural production, the state of the environment and natural resources; the student knows how to identify and apply techniques and technologies typical for those processes.	P7S_UW

ZI_U09	assess, independently, thoroughly, theoretically and taking into account many aspects, present situations and is able to take actions to solve the arising or expected problems in the field of Management and Production Engineering	P7S_UW P7S_UU
ZI_U10	to an in-depth degree prepare a report according to the course of events and compose standard written works, also in a foreign language, in the field of Management and Production Engineering	P7S_UW

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

ZI_K01	organise and direct work of teams (projects, tasks, etc.) and organisations in and outside of the work environment; the student is aware of his/her responsibilities regarding the above	P7S_KK P7S_KO
ZI_K02	navigate in the labour market and correctly specify the priorities to achieve the objectives set by himself/herself and others.	P7S_KR
ZI_K03	independently acquire and improve the knowledge, professional and research skills and is able to inspire others	P7S_KR
ZI_K04	act, in an ethical way, within the assigned organisational and social roles, is aware of the risk and is able to assess the results of the activities performed in the field of broadly understood economy	P7S_KR P7S_KO
ZI_K05	think and act in an entrepreneurial manner and understand the need to constantly learn and inspire others	P7S_KO