Description of the outcomes of learning in relation to the characteristics of the outcomes of learning of the second-cycle studies for the qualifications at Polish Qualifications Framework, level 6, that enable the acquisition of engineering competencies.

## Field of study: Management and Production Engineering Level: first-cycle studies Profile: general

Symbol	The outcomes of learning that enable the acquisition of engineering competencies	Reference to the characteristics of the outcomes of learning of the second-cycle studies that enable the acquisition of engineering competencies	
KNOWLEDGE the graduate knows and understands:			
InzZI_W01	the life cycle of devices, objects, technical systems and industrial products and the influence of technology on the quality of raw materials and products, that are used to determine occupational risks for the users of technical facilities and risks for the environment	P6S_WG	
		P7S_WG	
InzZI_W02	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	
		P7S_WG	
InzZI_W03	processes of production of raw materials, their quality and suitability for production	P6S_WG	
		P7S_WG	
InzZI_W04	issues related to materials, processes of production, production management, transport and services, entrepreneurship, quality management, finance and accounting	P6S_WK	
		P7S_WK	
InzZI_W05	methods, techniques, tools and materials that are used to solve simple engineering tasks in the field of production systems engineering in selected industries	P6S_WK	
		P7S_WK	
SKILLS, the graduate can:			
InzZI_U01	understand standard engineering activities, use appropriate methods, techniques, technologies, tools and materials to solve current problems related to production processes, services, condition of the environment, management of human, financial and natural resources	P6S_UW	
		P7S_UW	

InzZI_U02	use basic available information technologies to obtain and process information in the field of production and is able to use the acquired knowledge to resolve issues and communicate regarding problems that arise in the professional work including those related to technological and logistic processes	P6S_UW P7S_UW
InzZI_U03	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 P7S_UW
InzZI_U04	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 P7S_UW
InzZI_U05	design new and supervise existing operational and production processes and systems taking into account ecological aspects	P6S_UW P7S_UW