GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Technical preparation of production, PG_00055253						
Field of study	Management and Production Engineering						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2028/2029			
Education level	first-cycle studies		Subject group	Optional subject group Subject group related to scientific research in the field of study			
Mode of study	Full-time studies		Mode of delivery	at the university			
Year of study	3		Language of instruction	Polish			
Semester of study	6		ECTS credits	4.0			
Learning profile	general academic profile		Assessment form	exam			
Conducting unit	Institute of Manufacturing and Materials Technology -> Faculty of Mechanical Engineering and Ship Technology -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Stefan Dzionk				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	30.0	0.0	60
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours	Self-study		SUM
	Number of study hours	60		5.0	35.0		100
Subject objectives	To familiarise students with aspects related to the technicist preparation of the production of a new product.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U04] is able to develop documentation in the area of preparation, implementation and control of production processes in Polish and in a foreign language considered basic for scientific fields, is able to identify and formulate the basic objectives of quality management in the product life cycle, is able to use information and communication techniques appropriate to the implementation of tasks typical in engineering activities including preparation, production and supervision of the manufacturing process	The student designs simple tooling needed to implement a new production. The student conducts analysis of available design solutions of used production tooling for the needs of new product implementation.	[SU1] Assessment of task fulfilment
	[K6_W06] has knowledge of the life cycle of products and mechanical devices and systems, in the field of machine parts manufacturing techniques, as well as the possibilities and trends in the development of machines and production devices and process control	The student has knowledge of the product life cycle and anticipates actions to dispose of the product at the end of its life.	[SW3] Assessment of knowledge contained in written work and projects
	[K6_K03] is aware of the social role of a graduate of a technical university, understands the importance of non-technical aspects and effects of engineering activities including their impact on the environment and responsibility for decisions, sees the need to formulate and provide the public with information and opinions on the achievements of technology, correctly identifies and resolves dilemmas associated with thejob of an engineer	The student understands the impact of selected technologies on the surrounding environment. The student analyzes the literature in search of technological solutions limiting the negative impact on the surroundings and the environment.	[SK5] Assessment of ability to solve problems that arise in practice
	[K6_U07] is able to conduct a preliminary economical analysis of undertaken engineering activities, is able to can conduct a critical analysis and evaluation of existing production processes and courses of selected sections of manufacturing systems, is able to identify the needs of the application of technical solutions for automation and / or robotization production stations and formulate the specifications of the resulting benefits and limitations	The student analyses the usefulness of applied structural solutions in terms of their application in the manufacture of a new product. The student makes simple economic analyses of planned engineering actions.	[SU4] Assessment of ability to use methods and tools
	[K6_W13] has detailed knowledge of the production and operation of machines and devices, diagnosing their technical conditions and selection of regeneration techniques	Students know the manufacturing processes of machine parts. Students can select the appropriate process and its parameters according to the expected properties of manufactured parts.	[SW1] Assessment of factual knowledge

Subject contents	Course content – lecture Essence and scope of production preparation, research and development activity and its aspects, protection of industrial property its verification, patents licenses, constructional preparation of production, technological preparation of production, launching and start-up of new production design methodology, technical documentation of new products and methods of documentation management, computer techniques in production planning and integration, planning and control of undertakings, organization of technical preparation of production planning of TPP undertakings. Project: Development of selected aspects of the technical documentation of production preparation along with the design of specific elements of equipment for a simple product.
Prerequisites and co-requisites	

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	project	60.0%	50.0%
	Test	60.0%	50.0%
Recommended reading	Basic literature	1. Kazimierz Szatkowski: Przygotowanie produkcji, PWN, Warszawa 2021r. 2. Lewandowski J., Skołud B., Plinta D., Organizacja systemów produkcyjnych. Polskie Wydawnictwo Ekonomiczne, Warszawa 2014. 3. Liwowski B., Kozłowski R., Podstawowe zagadnienia zarządzania produkcją. Oficyna Ekonomiczna, Kraków 2006. 4. Matuszek J., Inżynieria produkcji. Wydawnictwo Politechniki Łódzkiej w Bielsku-Białej, Bielsko-Biała 2010. 5. Ireneusz P. Rutkowski: rozwój nowego produktu, PWE 2007r	
	Supplementary literature	1. Dworczyk M., Organizacja technicznego przygotowania produkcji. PWE, Warszawa 1973. 2. Haratym F., System technicznego przygotowania produkcji. WNT, Warszawa 1979	
	eResources addresses		
Example issues/ example questions/ tasks being completed	1. Essence and scope of production preparation, 2. Relationship of production preparation to research and implementation activities. 3. Assessment and selection of technical solutions, 4. Research in the field of patent protection of a technical solution or a specific product. 5. Concept and scope of constructive production preparation, 6. Constructive preparation for launching a test series. 7. Production instrumentation, 8. Technological preparation for launching production, 9. Methodology of start-up design, 10. Requirements for technical documentation. 11. Planning of projects of technical production preparation.		
Practical activites within the subject	Not applicable		

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