



Subject card

Subject name and code	Technology and Civilization, PG_00005028						
Field of study	Management and Production Engineering, Management and Production Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2022/2023		
Education level	first-cycle studies	Subject group					
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	3	Language of instruction			Polish		
Semester of study	5	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Machine Design and Vehicles -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Wojciech Owczarzak					
	Teachers	dr inż. Wojciech Owczarzak					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	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	15	0.0		0.0		15
Subject objectives	Presentation of development of civilisation and technology since the beginning of mankind						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
Subject contents	Definitions: technology, civilisation, culture. Key invention – container for transport of fire. Migrations. Paleolithic Age: first mechanical tools of stone, bone, wood, first shelter structures. Neolithic Age: circle, wheel, pottery, furniture. Bronze Age: copper and silver mines, advanced metalwork. Iron Age: metallurgy, forgery, iron weapon, advanced tools in trade and fine art. Ancient Age: structural beam, arch and integral body and frame structure in shipbuilding and architectural engineering, water supply system (aqueduct) block and tackle, screw conveyer, theodolite; development of philosophy and mathematics. Renaissance: da Vinci's projects, Galileo's, Kepler's, Gilbert's, Newton's constructions. French Revolution: guillotine. Industrial Revolution: steam engine, mechanical spinning mule, programmable loom, Bessemer converter, iron bridge, steel hull, railway, motorcar, aircraft, submarine, tank, machine gun, telegraph, telephone, radio, production line; patent law. I ÷ II World War Period: production mechanisation, skyscraper, powerful machine (turbine), diesel engine, jet, racket, large: bridge, tunnel, dam, channel. Contemporaneity: space mechanics, nanomechanics, ekomechanics.						
Prerequisites and co-requisites	No introductory knowledge is required.						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Presentation		50.0%		100.0%		
Recommended reading	Basic literature		1. Kalendarium dziejów świata. Encyklopedia PWN. 2005 2. Historia świata. Encyklopedia PWN. 2008				
	Supplementary literature		1. Wielka Encyklopedia PWN, 2008				
	eResources addresses		Adresy na platformie eNauczanie: TECHNIKA A CYWILIZACJA W, ZiIP sem.05, zimowy 22/23 PG_00005028 - Moodle ID: 27104 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27104				

Example issues/ example questions/ tasks being completed	Influence of a discovery / invention upon civilization. The most important achievements in Bronze Ege Hypothetical functions of Stonehenge
Work placement	Not applicable