

## 。 GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

Subject name and code	WATER RESOURCES MANAGEMENT, PG_00060007								
Field of study	Environmental Engineering								
Date of commencement of studies	February 2024		Academic year of realisation of subject			2024/2025			
Education level	second-cycle studies		Subject group			Obligatory subject group in the field of study			
Mode of study	Full-time studies		Mode of delivery			at the university			
Year of study	1		Language of instruction			English			
Semester of study	2		ECTS credits			4.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Faculty of Civil and Environmental Engineering								
Name and surname	Subject supervisor		dr hab. inż. Tomasz Kolerski						
of lecturer (lecturers)	Teachers								
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory Project		t	Seminar	SUM	
of instruction	Number of study hours	30.0	15.0	0.0	.0 15.0		0.0	60	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity	Participation in classes includ plan	n didactic ed in study	Participation in consultation hours		Self-study		SUM	
	Number of study 60 hours			5.0		38.0		103	
Subject objectives	Advances and practice of water resources management								
Learning outcomes	Course outcome Subject outcome Method of verification						fication		
	K7_W09		The student has knowledge about hydrological processes occurring in a natural catchment			[SW1] Assessment of factual knowledge			
	K7_U03		The student is able to prepare a report on the completion of the task			[SU5] Assessment of ability to present the results of task			
	K7_U06		The student is able to calculate the flow routing using the linear reservoir model			[SU3] Assessment of ability to use knowledge gained from the subject			
	K7_U10		The student is able to design the permanent retention capacity of a retention tank			[SU3] Assessment of ability to use knowledge gained from the subject			
	[K7_U01] can obtain information from literature, databases and other sources; can integrate the obtained information, interpret and critically evaluate them, draw conclusions, and formulate and comprehesively justify the opinions		The student is able to use raw data and process this data to obtain the necessary input information to solve the task. The student is able to use the IMGW databases			[SU2] Assessment of ability to analyse information			
Subject contents	A study of the advances engineering involved in analyzing and managing the quantity of water in natural and developed systems. The course illustrate the roles of interdisciplinary teamwork, partnerships, and public involvement in planning and management processes and present the elements of integrated water resources planning and management								
Prerequisites and co-requisites	This course is designed to students with the basic knowledge of principles of water resources planning and management								
Assessment methods and criteria	Subject passing criteria		Passing threshold			Percentage of the final grade			
	homework		60.0%			50.0%			
	test		60.0%			50.0%			

Recommended reading	Basic literature	<ol> <li>Cech, T., V., <i>Principles of Water Resources</i>, John Wiley &amp; Sons, Inc. 2002</li> <li>Dzurik, A., A., <i>Water Resources Planning</i> (3rd ed), Rowman &amp; Littlefield Pub. Inc., 2003.</li> <li>Mays L. W., Water Resources Engineering, 2005 Edition John Wiley &amp; Sons, Inc.</li> </ol>			
	Supplementary literature	<ol> <li>Chow, V.T., Open-channel Hydraulics, McGraw-Hill, 1959</li> <li>Henderson, F., M., Open Channel Flow, Prentice Hall, 1966</li> <li>Shen H. T., Mathematical Modeling of River Ice Processes, Cold Regions Science and Technology, Volume 62, Issue 1, June 2010, Pages 3-13</li> <li>Young D. F., Munson B R Okiishi T. H., Huebsch W. W., A Brief Introduction to Fluid Mechanics, John Willey and Sons, Inc. 2007 (or later edition)</li> </ol>			
	eResources addresses	Adresy na platformie eNauczanie:			
Example issues/ example questions/ tasks being completed	Rainfall exces and surface outflow from the basin				
	Flow routing				
Work placement	Not applicable				

Document generated electronically. Does not require a seal or signature.