

STUDY COURSE DESCRIPTION FORM		
Name of the course		Code
Water-responsible urbanism		
Name of the doctoral school		Year /Semester
Poznan University of Technology Doctoral School	
Specialty/Discipline		Type (obligatory, elective):
Architecture and Urban Planning		elective
No. of hours		No. of credits
Lectures: 4 Classes: - Laboratories: - Seminars: -		1
Cycle of study: Third-cycle studies (Polish Qualifications Framework level eight)	Form of study: Full-time	Assessment: (written exam, presentation, etc.) <u>presentation</u>
Responsible for the course/lecturer: dr hab. inż. arch. Anna Januchta-Szostak, prof. PUT e-mail: anna.januchta-szostak@put.poznan.pl phone : +48 61 665 3260 Faculty of Architecture Poznan University of Technology		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge: student knows the basic issues of architecture and urban planning as well as landscape architecture; has knowledge required for the understanding of social, economic, legal and other determinants outside the engineering field of architectural designing and urban planning	
2	Skills: student can acquire information from field specific literature, data bases and other properly selected sources in English, can integrate the acquired information, interpret the said information, as well as draw conclusions and come up with opinions supported with satisfactory reason	
3	Social competencies: student understands the need for lifelong learning, is aware of the social role of the architect and urban planner and their liability for affecting decisions	
Objectives of the course: Gaining the increased knowledge in the scope of principles of sustainable and interdisciplinary spatial planning in the face of the climate crisis, including the role of integrated space and water management in urban design in environmental, social and economic, as well as administrative and legal aspects. Learning the latest tendencies in urban planning, especially water-sensitive planning & design, stormwater management, SUDS - sustainable urban drainage systems etc. Learning methods and ways of implementation of the latest scientific achievements in the scope of urban planning and urban water management.		
Educational results (Study outcomes)		
Knowledge:		
P8S_WG	to the extent that enables revision of existing paradigms - global achievements, covering theoretical basis as well as general and selected specific issues, that are specific to scientific disciplines studied at the doctoral school,	SzD_W01
P8S_WK	fundamental dilemmas of the contemporary civilization,	SzD_W05

P8S_WK	economic, legal, ethical and other vital conditions related to scientific activity,	SzD_W06	
Skills:			
P8S_UW	use the knowledge from different branches of science to creatively identify, formulate and to innovatively solve complex problems or to execute research tasks	SzD_U01	
P8S_UW	transfer the results of scientific activity to the economic and social sphere,	SzD_U03	
Social competencies:			
P8S_KK	critically assess the achievements within a given scientific discipline,	SzD_K01	
P8S_KO	fulfilling the social obligations of researchers and creators,	SzD_K04	
Compulsory literature:			
<ol style="list-style-type: none"> 1. Bergier T., Kronenberg J., Wagner I., (red.), Water in the City. Sustainable Development Applications Series 5/2015. Publisher: Fundacja Sendzimira, Kraków 2014, Download PDF: http://www.sendzimir.org.pl/en/series5 2. France R.L. (red.), 2002, Handbook of Water Sensitive Planning and Design (Integrated Studies in Water Management and Land Development), Lewis Publishers, CRC Press, Boca Raton. 3. Januchta-Szostak, Miasta przyjazne rzekom. Wydawnictwo Politechniki Poznańskiej. Poznań 2019. English edition: Januchta-Szostak, River-friendly cities, Peter Lang, Berlin 2020 (in edition). 			
Additional literature:			
<ol style="list-style-type: none"> 1. Bahri A., Integrated urban water management. Global Water Partnership, Stockholm 2015, DOI: 10.13140/RG.2.1.4187.0160 2. EEA, European waters Assessment of status and pressures 2018 EEA Report No 7/2018, Publication Office of the European Union, Luxembourg 2018. 3. Hooimeijer F., Meyer H., Nienhuis A., Atlas of Dutch water cities, Uitgeverij SUN, Amsterdam 2005. 4. Januchta-Szostak A., Woda w miejskiej przestrzeni publicznej. Modelowe formy zagospodarowania wód opadowych i powierzchniowych, seria: Rozprawy nr 454, Wyd. Politechniki Poznańskiej, Poznań 2011. 5. Kundzewicz, Z.W., Hegger, D.L.T., Matczak, P., Driessen P.P.J., Flood-risk re-duction: Structural measures and diverse strategies. PNAS (Proceedings of the National Academy of Sciences of the United States of America) 115(49): 12321-12325 Published: DEC 4 2018. 6. Pötz H., Bleuzé P., Urban green-blue grids for sustainable and dynamic cities. Coop For Life, Delft 2012. 7. Nyka L., 2013, Architektura i woda – przekraczanie granic. Wydawnictwo Politechniki Gdańskiej, Gdańsk. 8. Shannon K, Meulder B., Gosseye J., D'Auria V.(eds.), 2008, UFO1 Water Urbanisms. SUN, Amsterdam, s. 5-9. 9. The Baltimore Charter for Sustainable Water Systems, Baltimore 2007, <http://sustainablewaterforum.org/baltimore.html> [dostęp: 17.06.2010]. 10. Wylson A., Aquitecture: Architecture and Water, Architectural Press, 2013. 			
COURSE DESCRIPTION			
	General issues	Specific issues	No. of hours
1	Water in the history of urban development	<ul style="list-style-type: none"> • Changes in water-city relations in the history of European civilization • Hydraulic and ecohydrological consequences of urbanization 	1
2	Climate challenges	<ul style="list-style-type: none"> • Climate changes • Water threats – economic, social and environmental aspects • Water hazards & flood risk 	1
3	Resilient waterfronts	<ul style="list-style-type: none"> • Urban waterfronts renewal • Coastal resilience - natural & built flood infrastructure • Flood risk reduction strategies 	1

4	Responsible and resilient urban water and space management	<ul style="list-style-type: none"> • Watershed approach - rainwater management in urban areas • Source – pathway – recipient • Integrated water and spatial management 	1
Assessment methods of educational results			
<p>Grade for preparation of short research elaboration or grade for test covering the lecture contents. Final grading scale: 3,0; 3,5; 4,0; 4,5; 5,0 Positive grade for the course depends on achieved by student all learning outcomes specified in the syllabus.</p>			
STUDENT'S WORKLOAD			
Activity		Hours	
Participation in lectures, classes, seminars and laboratories		4	
Contact hours with lecturers		4	
Self-study		16	
Exam		1	
TOTAL		25	
TOTAL NUMBER OF ECTS POINTS FOR THE COURSE		1	