Title (Systemy kanalizacyjne)							Code 1010102211010130573		
Field								Year / Semester	
Environmental Engineering Second-cycle Studies								1/1	
Specialty							Course		
Water Supply, Water and Soil Protection								core	
Hours								Number of credits	
Lectures:	2	Classes:	1	Laboratory:	-	Projects / seminars:	2		5
								Language	
								polish	

Lecturer:

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Faculty:

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Status of the course in the study program:

Course for specialization Water Management, Water and Soil Protection.

Assumptions and objectives of the course:

Acquaintance with methods of design storm water discharge computation, design of pressured sewer systems, bases of sewer network design optimization, trenchless. technologies of sewers construction and renovation of sewers.

Contents of the course (course description):

Methods of design storm water discharge computation. Design of storm and combined networks with gravitational flow. Bases of sewer network design optimization.. Design of selected structures connected into sewer networks (siphons, CSOs). Pumping stations: types of pumps, rules of their selection and operation, guidelines for design of pumping stations. Design of pressured and mixed (gravitational?pressured) sewer systems. Impact of sewage systems on environment. Trenchless technologies of sewers construction. Renovation of sewers.

Introductory courses and the required pre-knowledge:

Fluid Mechanics I, Wastewater Disposal, Geology and Hydrology, Meteorology and Climatology.

Courses form and teaching methods:

Lectures and projects.

Form and terms of complete the course - requirements and assessment methods: Written examination, project reports within projects.

Basic Bibliography:

Additional Bibliography: