Title		Code
(Odprowadzanie ścieków)		**1010101251010130356**
Field		Year / Semester
Environmental Engineering First-cycle Studies		**3 / 5**
Specialty		Course
-		**core**
Hours		Number of credits
Lectures: **2** Classes: **1** Laboratory: **-** Projects / seminars: **1**		**6**
		Language
		polish

Lecturer:

> Marek Sowiński, Ph.D. D.Sc., Eng.
> tel./fax: +48 61 665 24 69
> e-mail: marek.sowinski@put.poznan.pl

Faculty:

> Faculty of Civil and Environmental Engineering
> ul. Piotrowo 5
> 60-965 Poznań
> tel. (061) 665-2413, fax. (061) 665-2444
> e-mail: office_dceeaf@put.poznan.pl

Status of the course in the study program:

> Core course.

Assumptions and objectives of the course:

> Acquaintance with operation of sewage systems, getting familiar with design of gravitational sewage network elements (sewers and structures) and combining them into a system.

Contents of the course (course description):

> Classification of wastewaters and sewerage systems. Quantity evaluation of sewage. Typical shapes of sewers cross sections Hydraulic computation of gravitational sewers. Basis of gravitational sewer networks design. Layout of network. Catchment borders. Design constrains. Algorithm of sewer profile determination. Special structures on the network: combined sewer overflow (CSO), storage reservoirs, siphons, drop shafts, pumping stations - typical solutions, criteria of localization, basis of design. Sewer appurtenance: manholes, storm water inlets, outlets of collectors, grease and oil traps. Characteristic of pressure and vacuum sewer systems. Scope of activity by maintenance and inspection of sewer systems.

Introductory courses and the required pre-knowledge:

> Fluid Mechanics I, Materials Technology, Water Supply Technology.

Courses form and teaching methods:

> Lectures, tutorials. projects.

Form and terms of complete the course - requirements and assessment methods:

> Written examination, tests within tutorials, project reports prepared within projects.

Basic Bibliography:

Additional Bibliography:

http://www.put.poznan.pl/