## Faculty of Civil and Environmental Engineering

Title Water Management	Code 1010101271010130375
Field Environmental Engineering First-cycle Studies	Year / Semester 4 / 7
Specialty	Course
•	core
Hours	Number of credits
Lectures: 2 Classes: - Laboratory: - Projects / seminars: 2	3
	Language
	polish

## Lecturer:

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### Faculty:

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## Status of the course in the study program:

Core course.

## Assumptions and objectives of the course:

Acquaintance with the scope of water management and its basic problems.

# Contents of the course (course description):

Goals and tasks of water management. State of water management in Poland. Water management in the world. Available resources of surface and ground water and methods of their evaluation. Evaluation of needs for communal management, industry and agriculture. Rationalization of water needs. Extreme events: floods and draughts? classification, reasons of occurrence, methods of mitigation of results. Functiond of retention basins. Other water management structures. Protection of surface and ground water against pollution. Water quality monitoring in Poland. Modeling of self purification processes in recipients of wastewaters. Economics of water management and water law. Water management balance.

### Introductory courses and the required pre-knowledge:

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 exam (lectures) and reports from project exercises.

#### **Basic Bibliography:**

- 1. Mikulski Z. Gospodarka wodna PWN Warszawa 1998
- 2. Słota H. Zarządzanie systemami gospodarki wodnej IMGW 1997
- 3. Szpindor A., Gospodarka wodna PWN Warszawa 1986
- 4. Ciepielowski A. Podstawy gospodarowania wodą Wyd. SGGW Warszawa 1999

### Additional Bibliography: