

<i>Course title:</i> WATER SUPPLY	<i>Code:</i> Erasmus FCEE-EM
<i>Field of study:</i> Environmental Engineering	<i>Year / semester:</i> II
<i>Specialty:</i>	<i>Course:</i> compulsory
<i>Hours / week:</i> Lectures: 1 Tutorials: 0,5 Laboratories: 0 Project / Seminars: 0	<i>Number of credits:</i> 6

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Status of the course in the study program:
Core course for students of Environmental Engineering

Course description:
Overview of water supply systems and water distribution system components, pipeline alignment and regional planning, non-excavation lining methods for piping, determination of water demands and demands variability, hydraulic design of pump system, and storage tanks; hydraulic calculations methods of pipeline systems, GIS in water distribution systems, computer models of water distribution system (analysis and parameters), operation of water distribution systems, water quality aspects.

Teaching outcomes:
The main aim of the course is to revile the knowledge on water distribution systems designing and operation as well as GIS systems and computer models for both: designing and operation (within decision supporting) usage.

Prerequisites:
Basic knowledge of hydraulics and fluid mechanics

Teaching method:
Lectures (multimedia projector);
Tutorials – computer modeling.

Assessment method:
Written examination,

Bibliography:
1. Larry W. Mays: *Water distribution systems handbook* (in English),
2. Thomas M. Walski: *Analysis of water distribution systems*, New York 1984 (in English),
3. Paul A. Longley, Michael F. Goodchild, David J. Maguire, David W. Rhind: *Geographic Information System and Science*, USA 2001 (in English)
4. Epanet 2 – users manual (pdf in English)