



FACULTY: ENVIRONMENTAL ENGINEERING

COURSE TITLE: Building Installations

Number of contact hours: 60

Duration: 1 semester (spring)

ECTS credits: 6

Programme description:

Presenting to students the rules of designing the indoor installations, making documentations of water plumbing, sewage installation. Air properties, standards and the need for ventilation are discussed. Natural, mechanical and hybrid ventilation characteristics, advantages and disadvantages are presented. Air conditioning systems, methods of energy saving in ventilation and air conditioning are also mentioned during the course.

The main topics of the course are listed below:

- Design and hydraulic calculations of different systems
- Energy recovery methods used in ventilation systems
- Sustainable plumbing: water conservation, water reclamation and recycling
- Renewable energy sources, alternative systems (solar, heat pumps)

Course type (hours): lectures (30), laboratory (15), project (15)

Literature: L.V. Ripka, Plumbing Design and Installation, fourth edition, American Technical Publishers, Orland Park, Illinois 2012
F.S. Merritt, Rickett J.T. (editors), Building design and construction handbook, McGraw – Hill 2001, PN – EN 12056, PN – EN 806

Assessment method: joint group projects, test

Lecturer: PhD Eng. Jarosław Müller, PhD Eng. Joanna Bąk, MSc Eng. Anna Młyńska

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