



Politechnika Krakowska
im. Tadeusza Kościuszki

FACULTY: ENVIRONMENTAL ENGINEERING

COURSE TITLE: On-site wastewater treatment and disposal systems

Institute/Division: Institute of Water Supply and Environmental Protection, Chair of Environmental Technologies

Number of contact hours: 30 (Lectures, design exercises)

Course duration: 1 semester (SPRING)

ECTS credits: 2

Course description: *The main goals of the course are following: to teach students understanding of interactions of the ecological systems with the pollutants, and principles of designing, construction and operation of onsite wastewater systems. As a result of teaching, students will be able to design and operate such systems. The lecture topics include: natural and constructed wetlands, mechanisms of wastewater treatment, media characteristics, role of the vegetation, hydrological balance on the wetlands, land treatment of wastewater, slow rate systems, rapid infiltration systems; design criteria, pre-treatment requirements, systems configuration, design procedures and criteria, site evaluation procedures, operation problems.*

Literature: Kadlec R.H. and Knight R.L. "Treatment wetlands" . Lewis Publishers.
Odum,H.T., and E.C.Odum. 2000 "Modeling for All Scales". Academic Press. San Diego.
US EPA "Onsite Wastewater Treatment and Disposal Systems. Design Manual".

Assessment method: Final test (70%), exercises (20%), attendance (10%)

Prerequisites: Chemistry, biology and ecology, engineering geology and hydrogeology, fluid mechanics

Primary target group: 3rd year students in Environmental Engineering programme, BSc(Undergraduate)

Lecturer: Elżbieta Płaza, Ph.D.

Contact person: Elżbieta Płaza, Ph.D., phone #: +48 12 628 2585; e-mail: eplaza@vistula.wis.pk.edu.pl

Deadline for application: 1st February 2016