



FACULTY: ENVIRONMENTAL ENGINEERING

COURSE TITLE: ENVIRONMENTAL DECISION-MAKING

Number of contact hours: 30

Duration: 1 semester (spring)

ECTS credits: 4

Programme description: The main purpose of the course is to give a general knowledge on tools available for incorporating environmental costs and considerations into decision making in industry and in designing, operating and managing municipal water enterprises. The lectures will cover the following topics: tools for decisions screening, categories of environmental impact, qualitative and quantitative information, spread, assessment and pedigree of available environmental data, methods of cost estimation, generation of financial indicators, Life Cycle Assessment as a tool for improving environmental impact of goods, stages of a product life, economical tools in efficient distribution of investments for protection of environment, comparing different products in respect to their environmental impact, idea of a stack market for pollution, simple elements of optimization methods applied to environmental decision making, most current trends in municipal utilities designing methods reducing the impact of urbanization of floods and urban water quality, Environmental liabilities such as compliance, remediation obligations, fines and penalties, compensations, and payment for natural resource damages

Course type (hours): lectures (15), workshops (15)

Literature: Ciechanowski P., Dąbrowski W., *Environmental product Declaration – practical implementation of ISO1402 Technical Report 1st International Conference on Cycle Management, Copenhagen, Sierpień 27-29,2001, 141-144* Helby P., *EKO-Energi – a public voluntary programme targeted at Swedish firms with ambitious environmental goals, Journal of Cleaner Production, 2002,10,129-141* Rettergen M.G., *Farla J.C.M., Blok K., Do agreements enhance energy efficiency improvement? Analysing the actual outcome of long – term agreements on industrial energy efficiencies improvement in the Netherlands, ibid. 10,2001,153-163*

Assessment method: Exercises, final conversation

Lecturer: Wojciech Dąbrowski, Professor, Michal Zielina, Ph.D.(Eng.) , phone #: +48 12 628-28-36; e-mail: mziel@vistula.wis.pk.edu.pl