

<b>Name of the course</b>	<b>Chemical processes pollution and control</b>
Number of instruction hours	20
Outline of course/module content	Pollution prevention in chemical industry: raw-material selection, from cleaning operation of process equipment , from storage and transport of chemicals and from process units-reactors, heat exchangers and separation equipment. Methods for maximizing selectivity. Changing process chemistry. Avoiding the storage of hazardous materials. Catalyst life prolonging. Preventing of fugitive and secondary emissions. Flowsheet analysis for pollution prevention. Evaluating and improving environmental performance of chemical processes. Introductory terms related to waste management hierarchy. Waste audits and emission inventories. Generation of solid wastes, air discharges and wastewaters in chemical industry. Techniques for wastes minimization as part of an overall pollution prevention program- reduction of waste at source, recycling. Methods for "end of pipe" treatment. Selected examples of chemical industry waste management - disposal, thermal and chemical treatment, leachate treatment, recycling.
Description of instruction methods	Lectures, presentation of the seminar
Description of course/module requirements	Written and oral exam