

WASTE MANAGEMENT TECHNOLOGY

Title of Study Programme and Code		Type (compulsory/optional)	Cycle	Year of study when the component is delivered (if applicable)
Environment Protection Engineering, 6531EX042		Compulsory	1 st	3 rd
Semester/trimester when the component is delivered		Number of ECTS credits allocated	Language of instruction	Mode of delivery (face-to-face/e-learning/...)
5 th		8	LT, RU	Face –to- face, distance learning
Learning outcomes			Study methods	Assessment methods
After completion of the study subject, a student should be able:			Interactive lecture; Module design work; Self-study in preparation for test and practical work; The difficulty of training; Consulting.	Control work; Practical work in the defense; Examination.
LO 1	To obtain knowledge of waste generation processes, waste basic chemical and physical properties, their classification.			
LO 2	To know how to select and perform laboratory waste basic chemical and physical characteristics of waste generation levels of analysis and research.			
LO 3	To know how to handle waste in basic chemical and physical characteristics of waste generation levels of analysis for testing equipment.			
LO 4	To find the relevant waste management, legal, technical and scientific information sources in public and in specialized databases.			
LO 5	To apply the dispersion of pollutants in the soil and biogas generation simulation programs and methods.			
LO 6	To evaluate of waste management technology pros and cons of economic activity.			
LO 7	To address the environmental problems and plan strategies for their solution.			
LO 8	To ground of preventive anti-pollution measures in the field of waste management.			
LO 9	To solve problems gather information, analyze it and provide solutions suited to the specific problem.			
LO 10	To solve problems, working in teams, headed the team.			
Prerequisites (these courses must be sucessfully completed prior to taking this particular course)				

Course content

1. Waste classification categories, types, composition and basic characteristics.
2. Hazardous waste classification, marking, properties, hazard identification.
3. Radioactive waste classification, marking, properties, hazard identification.
4. Waste sources, flows, formation speeds. Waste management legislation.
5. Waste management systems guiding principles, priorities, waste management plans.
6. Hazardous waste management organization in various economic projects counting, sorting, removal, document management, contracts.
7. Preventive measures to reduce the generation of waste
8. Radioactive waste management principles
9. Waste collection systems and technologies.
10. Landfill. Landfill construction, operation principles. The landfill developments.
11. Waste biological, thermal, physical and chemical treatment technologies. The use of waste energy.
12. Waste processing and recycling.

Recommended or required reading and other learning resources/tools

1. UNEP. 2005. Solid waste management.
2. Tchobanoglous, G.; Kreith, F. 2002. Handbook Of Solid Waste Management.
3. Tadesse, T.. 2004. Solid and hazardous waste management.