

## MODULES, COURSES AND COMPETENCES

Name of modules	Courses	Competences
<b>Module 1</b> <b>Complex risk assessment of waste management</b>	Introduction to environmental risks	Ability to assess and rank risks associated with waste management (social, economic and environmental risks).
	Environmental, social and economic risks /(ERA).	Ability to choose technologies for waste management facilities and manage environmental monitoring of soil, water, air and nature.
	Solid waste and environmental risks	
<b>Module 2</b> <b>Biotechnologies for waste utilization</b>	Basics of ecological biotechnologies	Ability to illustrate self-cleaning power of nature and use biomarkers / bioindicators / biological test systems.
	BATs of waste utilization by biological methods	Ability to create new consortium, bio preparations for degradation pollutants and calculate and design industrial facilities for biological treatment and valorization.
<b>Module 3</b> <b>Non-energy technologies for waste utilization</b>	Basics of waste utilization	Ability to define the main methods and technologies for separation, reuse and utilization of outputs
	Reuse of side products and outputs	Ability to select schemes and define operational parameters of waste treatment based on physico-chemical processes
	Physico-chemical treatment methods in waste management	
<b>Module 4</b> <b>Energy technologies for waste utilization</b>	Waste-to-energy plants and technologies	Ability to select proper methods to produce energy from the waste
	Energy efficient technologies in waste treatment	Ability to select schemes and define operational parameters for energy efficient waste utilization

<b>Module 5 Development of business and entrepreneurship for sustainable waste management</b>	Modeling of business processes in the field of waste management	Ability to apply the mechanism of decision-making process Ability to organize the business processes in the field of waste management
	Business planning for sustainable waste management projects	
<b>Module 6 Public administration and municipal governance in Sustainable Waste Management</b>	Institutional approach to SWM decision-making	Ability to apply the mechanism of decision-making process; Ability to analyze and revise public and municipal governance in SWM.
	Public and municipal governance in SWM	
	Budget and financial base of SWM	
<b>Module 7 Environmental management and waste prevention</b>	Theory and practice of waste management in companies	Ability to produce, develop and evaluate the feasibility of the projects on waste prevention and waste utilization in companies Ability to implement the waste management systems (environmental policy development, significant aspects identification, stakeholder analysis, environmental programme creation, audit conducting, etc.) Ability to model the dispersion and diffusion of pollutants
	Waste prevention	
	Modelling of dispersion and diffusion of pollutants	
<b>Module 8 Life cycle analysis and life cycle costing</b>	Introduction to LCA based on ISO 14040 series	Ability to model and assess both municipal and industrial waste streams from the beginning to the end Ability to apply environmental management tools
	Application of LCA and ISO 14001 for waste management	