

Erasmus Mundus Joint Master GREENANO

SYLLABUS

Semester 3

COURSE NAME:	Introduction to Environmental Pollution		
HOSTING UNIVERSITY:	Jozef Stefan International Postgraduate School		
SEMESTER:	NUMBER OF ECTS:	PILLAR:	
3	5	3	
DISTRIBUTION OF HOURS			
Lectures	Seminars	Lab work	Other study formats
15	15	5	105
PROFESSOR:	Milena Horvat		
LEARNING AND TEACHING METHODS:	Systematic lectures: - conversation, - problem solving, - experimental work. Fieldwork: - practical examples.		
PREREQUISITES:	Completed first level studies in natural sciences or engineering or completed second level studies in other fields with proven knowledge of fundamentals in the field of this course (certificates, interview).		
OBJECTIVES OF THE COURSE:	The main objective of the course is to achieve the qualification and maximum perception of students in the management and understanding of environmental pollution, especially in solving practical problems. The student will be able to: - Understand the basic characteristics of pollution of the environment, - Design solutions for the rehabilitation of degraded and contaminated environments, - Understand environmental quality control tools.		
CONTENT OF THE COURSE:	The subject includes the following: - sources of pollutants in the environment, - understanding and recognizing pollution of biosphere, hydrosphere, lithosphere and atmosphere, - identification, characterization and remediation of contaminated sites (emphasis on toxic chemical elements, natural and artificial radionuclides and organic pollutants), - planning environmental monitoring, - application of legislation and norms in solving selected environmental problems, - examples will be tailored to the goals and content of the postgraduate research project.		
INTENDED LEARNING OUTCOMES:	Knowledge and Understanding: - Identification and classification of pollutants in the environment, - Understanding the basic physical and biogeochemical processes in the environment (biosphere, atmospheric, lithosphere, hydrosphere), - Identification and understanding of waste streams from industrial sources and remediation of legacy sites, - Understanding and planning control measurements in the environment,		

	- Environmental legislation (national, European, global). Transferable / Key Skills and other attributes: - Use of national and international literature, - Acquiring the capability of a comprehensive understanding of environmental pollution, - Incorporation of knowledge into the construction of hypotheses for problem solving, thematically linked to the postgraduate thesis, - Ability to understand environmental legislation.
FORM OF ASSESSMENT:	Defense of the seminar work where the student demonstrates the achievement of all learning outcomes with at least one specific case for each outcome.