

Erasmus Mundus Joint Master GREENANO

SYLLABUS

Semester 3

COURSE NAME:	Introduction to Circular Economy		
HOSTING UNIVERSITY:	Jozef Stefan International Postgraduate School		
SEMESTER:	NUMBER OF ECTS:		PILLAR:
3	5		3
DISTRIBUTION OF HOURS			
Lectures	Seminars	Individual Student Work	Other study formats
15	15	105	15
PROFESSOR:	Aleksander Zidanšek		
LEARNING AND TEACHING METHODS:	Lectures, seminars, consultancy, individual work		
PREREQUISITES:	Completed first level studies.		
OBJECTIVES OF THE COURSE:	To prepare the students for solving the critical challenges of circular economy both at the local and global level. General competences: - ability to carry out independent as well as team R&D work, - ability to use the knowledge in practice, - and partially also to the development of an integral way of thinking and the ability to communicate with experts from other disciplines and fields. Course specific competences: - mastering of methods and techniques of scientific research work in the field of circular economy.		
CONTENT OF THE COURSE:	Why circular economy? - Practical implementation of sustainable development, - Decoupling growth from natural resources. Foundations: - Sustainable Development Goals (SDG), - Blue and sharing economy, - 4th industrial revolution, - EU regulatory environment. Natural resource management: - Limits to growth, - Critical materials, - Concepts of circular economy, - Value chains, - EU regulatory environment, - Waste targets and hierarchy, - Municipal waste, - Electronic and electrical waste, - Life Cycle Assesment,		

	- Industrial waste. Resource efficiency: - Reduce, recycle, reuse, - Maintain, prolong, share, - Foster system effectiveness by revealing and redesigning negative externalities, - Technological opportunities: ICT, blockchain, - Convergence of ICT, nano, eco and biotechnologies. New developmental paradigms: - Sustainable knowledge society, - Society 5.0.
INTENDED LEARNING OUTCOMES:	Knowledge and understanding: • Understanding the concept of circular economy. Evaluation and synthesis: • Ability for assessment of circular economy projects, • Establish the ability to communicate in English in the field of circular economy.
FORM OF ASSESSMENT:	Oral defense of seminar work