Wrocław University of Science and Technology

URBAN MINING

Semestr 1	Semestr 2	Semestr 3	Semestr 4
Urban mining-utility of waste	Methods of waste streams identification and assessing the raw material potential	Physical and physicochemical methods of waste processing	Gradudate laboratory
Basics of processing methods			
Biological factors in industry – fundamentals	Identification and assessment of environmental aspects		
	Circularity assessment tools	Chemical and biological methods of waste processing	
Statistical methods in waste management	Techniques and methods of exploitation anthropogenic deposits		
	ESG reporting		
Humanities and management course			
Block I (elective course)	Process engineering		
Block II (elective course)			
Formal, legal and economic aspects of anthropogenic deposits exploitation		Instrumental methods in biomonitoring and analysis of products	Project Feasibility Study
Foreign languagel	Analysis of circular economy in processing processes		
	Foreign language II	Occupational Health and Safety in waste management	Graduate seminar and thesis preparation

SEM.	I	II	III	IV
hours	**24h / 30 ECTS / 2E**	**24h / 30 ECTS / 2E**	**25h / 30 ECTS / 2E**	**25h / 30 ECTS / 0E**
1	E	Methods of waste streams identification and assessing the raw material potential 2w + 3p **(2+4) ECTS**	E Physical and physicochemical methods of waste processing 2w + 3l + 1s **(2+4+2) ECTS**	Graduate laboratory 20l **25 ECTS**
2				
3	Urban mining-utility of waste 3w **4 ECTS**			
4	E			
5	Basics of processing methods 1w + 1l / **(2+2) ECTS**			
6	Biological factors in industry – fundamentals 1s + 2l **(2+3) ECTS**	Identification and assessment of environmental aspects / 1w / **1 ECTS**		
7		Circularity assessment tools 2p / **3 ECTS**	E Chemical and biological methods of waste processing 2w + 6l + 1s **(2 + 6 + 2) ECTS**	
8				
9	Statistical methods in waste management 2w + 2l **(2+3) ECTS**	E Techniques and methods of exploitation anthropogenic deposits. 1w + 2p **(1+3) ECTS**		
10				
11				
12		ESG reporting 1w + 2p **(1 +3) ECTS**		
13	Humanities and management course 2W **2 ECTS**			
14				
15	Block I (elective course) 2l **2 ECTS**	E Process engineering 2w + 4p **(2 + 5) ECTS**	Instrumental methods in biomonitoring and analysis of products 2w + 5l **(2 + 6) ECTS**	
16				
17	Block II (elective course) 3p **3 ECTS**			
18				
19				
20	Formal, legal and economic aspects of anthropogenic deposits exploitation 2w / **3ECTS**			
21		Analysis of circular economy in processing processes 1w + 2p **(1 + 3) ECTS**		Project Feasibility Study 1w + 2p **(1 + 2) ECTS**
22	Foreign language II/ 3c / **2 ECTS**			
23			Occupational Health and Safety in waste management 1w + 1p + 1s **(1+ 2+ 1) ECTS**	
24		Foreign language I /1c/ **1 ECTS**		Graduate seminar 2s / **2 ECTS**
25				

Elective course I:
GIS Fundamentals / 2l / 2ECTS
Technical drawing / 2l / 2ECTS

Elective course II:
Fundamentals of process engineering / 3p / 3ECTS
Technological Design Process / 3p / 3ECTS