

1.	Field of study	Environmental Hazard Engineering
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	first-cycle studies (in engineering)
5.	Degree profile	general academic
6.	Mode of study	full-time
7.	Academic year for which the revised course structure applies	—

Programme modules										year 1						year 2						year 3						year 4					
										form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6			semester 7		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E					
1	Basics of Cartography, Topography and Geodesy	PL	E	60	30	30	5	30	30	5																							
2	Basics of geology	PL	E	66	30	36	6	30	36	6																							
3	Fundamentals of Geography	PL	E	30	15	15	4	15	15	4																							
4	Geographic Information System I	PL	C	35		35	4		35	4																							
5	Geohazards - Introduction	PL	C	30	15	15	3	15	15	3																							
6	Hydrology	PL	E	30	15	15	2	15	15	2																							
7	Mathematics in Earth Sciences	PL	C	30		30	3		30	3																							
8	Natural Environment Geochemistry	PL	C	30	15	15	3	15	15	3																							
9	Basics of Geophysics	PL	C	15		15	2					15	2																				
10	Biogeography and Ecological Engineering	PL	E	30	15	15	2				15	15	2																				
11	Geographic Information System II	PL	C	35		35	3					35	3																				
12	Geomorphology	PL	E	30	15	15	3				15	15	3																				
13	Hydrogeology	PL	E	30	15	15	2				15	15	2																				
14	Meteorology and Climatology	PL	E	30	15	15	3				15	15	3																				
15	Soil Science and Soil Geography	PL	E	30	15	15	2					15	2																				
16	Basics of CAD design with technical drawing elements	PL	C	30		30	3									30	3																
17	Engineering Geology	PL	E	60	30	30	6								30	30	6																
18	Geological Hazards	PL	E	30	15	15	3								15	15	3																
19	Geological, Geomorphological and Geophysical Methods in Geohazards Analysis	PL	E	30	15	15	4								15	15	4																
20	Geomorphological Hazards	PL	C	30	15	15	3								15	15	3																
21	Hydrological Hazards	PL	E	30	15	15	2								15	15	2																
22	Meteorological Hazards	PL	C	30	15	15	2								15	15	2																
23	Meteorological, Hydrological and Hydrochemical Methods in Geohazard Analysis	PL	E	30	15	15	4								15	15	4																
24	Anthropogenic Environmental Threats	PL	E	30	15	15	4										15	15	4														
25	CAD Designing	PL	C	30		30	2											30	2														
26	Climate Change as a Source of Environmental Risks	PL	E	15	15		2										15	2															
27	Environmental Pollution and Methods of its Analysis	PL	E	30	15	15	3										15	15	3														
28	Unconventional and Alternative Energy Sources	PL	C	15	15		2										15	2															
29	Climate Change Adaptation in Cities	PL	C	15		15	1												15	1													
30	English Terminology in Earth Sciences and Geohazards	PL	C	15		15	3												15	3													
31	Environmental waste management	PL	C	15	15		1												15		1												
32	Geohazards modeling and prediction	PL	E	45	15	30	3												15	30	3												

Programme modules

Programme modules										year 1						year 2						year 3						year 4			
										semester 1			semester 2			semester 3			semester 4			semester 5			semester 6			semester 7			
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E			
33	Monitoring of the natural environment	PL	E	30	15	15	2										15	15	2												
34	MSc seminar I	PL	C	30		30	3											30	3												
35	Optional module with elective courses for seminar path I	PL	C	90	90		4										90		4												
36	Remote sensing in geohazard analysis	PL	C	15		15	3											15	3												
37	Statistical methods in geohazard analysis	PL	C	15		15	1											15	1												
38	Sustainable Development and Geohazards	PL	C	15	15		3										15		3												
39	Anti-geohazard early warning systems design	PL	C	15		15	2														15	2									
40	Crisis management systems	PL	E	15	15		1												15		1										
41	Diploma workshop I	PL	C	30		30	2												30	2											
42	Engineering methods of the geohazard results prevention and limitation	PL	C	30		30	2												30	2											
43	Environmental and landscape impact assessment	PL	C	30	10	20	2												10	20	2										
44	MSc seminar II	PL	C	30		30	4												30	4											
45	Natural hazards related to mining exploitation	PL	C	30	15	15	2												15	15	2										
46	Optional module with elective courses for seminar path II	PL	C	90	90		5												90		5										
47	Water Supply and Sewage Networks	PL	C	15		15	1												15	1											
48	Basics of Land Reclamation and Drainage Systems	PL	E	15	15		1																15				1				
49	Diploma workshop II	PL	C	30		30	4																	30			4				
50	Environmental Expertise	PL	E	30	15	15	4																15	15			4				
51	Estimating the cost of environmental threats	PL	C	15		15	2																	15			2				
52	Introduction to the Labour Market	PL	C	15		15	1																	15			1				
53	Legal Aspects of Environmental Threats	PL	C	15	15		3																	15			3				
54	MSc seminar III	PL	C	30		30	8																	30			8				
55	Optional module with elective courses for seminar path III	PL	C	20	20		2																20			2					
56	Spatial planning as a tool of the geohazard results limitation	PL	E	45	15	30	5																15	30		5					
TOTAL Programme modules:				1686	735	951	162	120	191	30	75	125	17	120	150	27	60	60	13	150	135	24	130	155	21	80	135	30			

Programme co-related modules

Programme co-related modules										year 1						year 2						year 3						year 4					
										semester 1			semester 2			semester 3			semester 4			semester 5			semester 6			semester 7					
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E					
1	Group of programme co-related modules 1 <i>*[see description below]</i>	*	*	30		30	3					30	3																				
2	Group of programme co-related modules 2 <i>*[see description below]</i>	*	*	30		30	3					30	3																				
3	Group of programme co-related modules 3 <i>*[see description below]</i>	*	*	30		30	3								30	3																	
4	Group of programme co-related modules 4 <i>*[see description below]</i>	*	*	30		30	3								30	3																	
TOTAL Programme co-related modules:				120		120	12	0	0	0	0	60	6	0	0	0	0	60	6	0	0	0	0	0	0	0	0	0					

Open access modules

Open access modules										year 1						year 2						year 3						year 4					
										form of teaching						semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E					
1	Physical education	–	C	60		60	0					30			30																		
2	Foreign language course 1	–	C	30		30	3					30	3																				
3	Foreign language course 2	–	C	30		30	3								30	3																	
4	Foreign language course 3	–	C	30		30	3										30	3															
5	Open University Module	–	C	120		120	12								30	3			30	3			30	3		60	6						
6	Foreign language course 4	–	C	30		30	3												30	3													

Open access modules										year 1						year 2						year 3						year 4			
				form of teaching			Total ECTS	semester 1			semester 2			semester 3			semester 4			semester 5			semester 6			semester 7					
No.	Module				Lang.	E/C		Total	L	O	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E			
TOTAL Open access modules:							300		300	24					60	3		60	3		60	6		60	6		60	6			
Internships										year 1						year 2						year 3						year 4			
				form of teaching			Total ECTS	semester 1			semester 2			semester 3			semester 4			semester 5			semester 6			semester 7					
No.	Module				Lang.	E/C		Total	L	O	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E			
1	Geodesic and Photogrammetry Field Methods in Environmental Threats Analysis				PL	C	36		36	1				36	1																
2	Geohazards Basics Field Research				PL	C	36		36	1				36	1																
3	Geology Field Research				PL	C	36		36	1				36	1																
4	Physical Geography Field Research				PL	C	36		36	1				36	1																
5	Field hydrological and hydrogeological methods in environmental hazard analysis				PL	C	36		36	1								36	1												
6	Field Methods in Geology				PL	C	30		30	1								30	1												
7	Geomorphological Field Methods in Environmental Threats Analysis				PL	C	36		36	1								36	1												
8	Geophysical Field Methods in Environmental Threats Analysis				PL	C	30		30	1								30	1												
9	Meteorological Field Methods in Environmental Threats Analysis				PL	C	36		36	1								36	1												
10	Professional Practice				PL	C	90		90	3													90	3							
TOTAL Internships:							402		402	12				144	4				168	5				90	3						
TOTAL:							2508	735	1773	210	311	30	464	30	330	30	408	30	345	30	435	30	215	30							
TOTAL EXCLUDING INTERNSHIPS										2418																					
TOTAL										2508																					

The study ends with the awarding of an Engineer - Bachelor's Degree with engineering competencies in the field of Environmental Hazard Engineering.

* Groups of modules

Group of programme co-related modules 1

Description:						
The student chooses one course module from among the suggested areas in the humanities within the indications.						
Modules:	Lang.	E/C	L	O	ECTS	
Module in the "Civil Society and Entrepreneurship" area	–	C		30	3	
Module in the "Creative Expression and Critical Thinking" area	–	C		30	3	
Module in the "Digital World" area	–	C		30	3	
Module in the "Health and Personal Development" area	–	C		30	3	
Module in the "Natural Environment and Technologies" area	–	C		30	3	
Module in the "The Limits of Science" area	–	C		30	3	

Group of programme co-related modules 2

Description:										
The student chooses one course module from among the suggested areas in the humanities within the indications.										
Modules:						Lang.	E/C	L	O	ECTS
Module in the "Civil Society and Entrepreneurship" area						–	C		30	3
Module in the "Creative Expression and Critical Thinking" area						–	C		30	3

Module in the "Digital World" area	–	C		30	3
Module in the "Health and Personal Development" area	–	C		30	3
Module in the "Natural Environment and Technologies" area	–	C		30	3
Module in the "The Limits of Science" area	–	C		30	3

Group of programme co-related modules 3

Description:					
A student selects one of the modules offered within indicated areas					
Modules:	Lang.	E/C	L	O	ECTS
Module in the "Civil Society and Entrepreneurship" area	–	C		30	3
Module in the "Creative Expression and Critical Thinking" area	–	C		30	3
Module in the "Digital World" area	–	C		30	3
Module in the "Health and Personal Development" area	–	C		30	3
Module in the "Natural Environment and Technologies" area	–	C		30	3
Module in the "The Limits of Science" area	–	C		30	3

Group of programme co-related modules 4

Description:					
A student selects one of the modules offered within indicated areas					
Modules:	Lang.	E/C	L	O	ECTS
Module in the "Civil Society and Entrepreneurship" area	–	C		30	3
Module in the "Creative Expression and Critical Thinking" area	–	C		30	3
Module in the "Digital World" area	–	C		30	3
Module in the "Health and Personal Development" area	–	C		30	3
Module in the "Natural Environment and Technologies" area	–	C		30	3
Module in the "The Limits of Science" area	–	C		30	3

Legend

Each semester consists of 15 weeks

E/C - exam/course work

E - ECTS

L - lecture, O - all forms of teaching excluding lecture (practical classes, laboratory classes, discussion classes, seminar, proseminar, language classes, field practice, workshop, internship, tutoring)