1.	Field of study	Geography
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2022/2023 (winter term), 2023/2024 (winter term), 2024/2025 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time

Module: Opensource – introduction to QGIS software

Module code: W2-GF-S2-233

1. Number of the ECTS credits: 4

2. Learning outcomes of the module			
code	description	learning outcomes of the programme	level of competence (scale 1-5)
W2-GF-S2-233_1	The student defines the basic concepts in the field of GIS and knows the specifics of the Opensource GIS software	KGG2_W01	2
W2-GF-S2-233_2	The student uses available sources of geographic information, including electronic once, uses basic algorithms and QGIS techniques to describe phenomena and data analysis, he can supplement databases	KGG2_U03	4
W2-GF-S2-233_3	The student can set priorities for the implementation of specific tasks	KGG2_K03	2

3. Module description	
Description	The student learns the specifics of the example open source GIS software – QGIS – user interface, tools options and helpful plugins. Acquires skills: creating vector data models, data visualization, data transformation to chosen coordinate systems, raster image registration in given projection. He/she learns to solve problems that arise while working at QGIS.
Prerequisites	

4. Assessment of the learning outcomes of the module			
code	type	description	learning outcomes of the module
W2-GF-S2-233_w_1	Project	Verification of knowledge and skills based on a projects made during laboratory exercises	W2-GF-S2-233_1, W2-GF-S2-233_2, W2-GF-S2-233_3

5. Forms of teaching

code	form of teaching			required hours of student's own work		assessment of the learning outcomes of the module
	type	description (including teaching methods)	number of hours	description	number of hours	
W2-GF-S2-233_fs_1	laboratory classes	Performing by the student work related to the implementation of the projects including the raster image registration to given coordinate system, vectorisation of the spatial data, its stylisation, cartographic visualization of the results	30	Preparation of materials, development of laboratory results, read the literature on the subject, consultations.	70	W2-GF-S2-233_w_1