1.	Field of study	Geography
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2019/2020 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time

Module: GIS applications on the Internet (WebGIS)

Module code: 04-GF-S2-1113

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)
04-GF-S2-1113_1	The student has extended knowledge in the field of geography sciences, basic terminology relating to WebGIS, WebCartography and geoportals; knows the current literature of the subject. The student has knowledge of the applied spatial data in earth sciences and WebGIS; knows the principles of data searching.	KGG2_W01 KGG2_W02	4 3
04-GF-S2-1113_2	Student uses geoportals and GIS software to solve specific problems in the field of geography sciences. Student is able to search and obtain spatial data on the Internet. Student can describe, analyze and interpret environmental processes and phenomena based on data from Internet sources. Student is able to critically select information from various sources, has the ability to use the acquired knowledge in practice (e.g. to create a thematic map).	KGG2_U01 KGG2_U02 KGG2_U03	3 3 4

3. Module description

Description	The course is to enable students to acquire basic operating principles and the use of GIS applications available for free on the internet in the browser window. Indicates the relationship between WebGIS applications and other fields of knowledge and application techniques. Familiarizes with the basics of work and the extensive use of geoportals, which provide a whole range of information about the study area. It gives the ability to use WebGIS applications and to perform simple spatial analyzes, data processing and their subsequent transfer to other GIS applications, as well as presentation of results in the form of thematic imagery. In addition, the course builds the awareness of the existence of huge spatial information resources available in various forms on the Internet, and learns how to search for sources with data.
Prerequisites	Basic skills of the GIS software (i.e. ArcGIS, QGIS)

4. Assessment of the learning outcomes of the module			
code	**type**	**description**	**learning outcomes of the module**
04-GF-S2-1113_w_1	Written test	Written test (different kind of questions: multiple-choice, completion, written answers). Verification of knowledge acquired by the student during lectures and individual reading of the recommended literature.	04-GF-S2-1113_1
04-GF-S2-1113_w_2	Continuous evaluation of the student's work	Verification of knowledge and skills on the base student's exercises.	04-GF-S2-1113_1, 04-GF-S2-1113_2

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**	
04-GF-S2-1113_fs_1	lecture	Introductory lectures on WebGIS and WebCartography (geoportals, geodatabases, WMS, WFS, WCS services, etc.) their use for environmental analyzes; creation thematic maps based on them. Use of audiovisual aids.	5	Work with the recommended literature of the subject, including independent acquisition of knowledge about the indicated issues.	20	04-GF-S2-1113_w_1
04-GF-S2-1113_fs_2	laboratory classes	Project implementation related to searching of services with spatial data on the Internet and performing (using WebGIS applications) environmental analyzes of selected areas based on them; preparation of presentations.	35	Preparation of the data, preparation for the laboratory by familiarizing with the indicated issues, working out results from the laboratory.	40	04-GF-S2-1113_w_2