

1. Field of study	Geography
2. Faculty	Faculty of Natural Sciences
3. Academic year of entry	2020/2021 (winter term), 2021/2022 (winter term)
4. Level of qualifications/degree	second-cycle studies
5. Degree profile	general academic
6. Mode of study	full-time
7. ISCED code	0532 (Earth sciences)
8. Connection between the field of study and university development strategy, including the university mission	
9. Number of semesters	4
10. Degree	magister (Master's Degree)
11. Specializations	Climatology Exploration of the Polar and Mountain Regions Geographic Information Systems GIS, remote sensing, applications of geodesy Hydrology and Water Management Landscape changes monitoring Reconstruction of Geographic Environment Social and Economic Geography and Spatial Management Teacher Training Programme
12. The semester from which the specializations starts	1
13. Percentage share of scientific or artistic disciplines in education (along with the indication of the leading discipline)	<ul style="list-style-type: none"> • <i>[leading discipline]</i> Earth and related environmental sciences (natural sciences): 85% • social and economic geography and spatial management (social sciences): 15%
14. Percentage of the ECTS credits for each of the scientific or artistic disciplines to which the learning outcomes are related to the total number of ECTS credits (along with the indication of the leading discipline)	Climatology: <ul style="list-style-type: none"> • <i>[leading discipline]</i> Earth and related environmental sciences (natural sciences): 95% • social and economic geography and spatial management (social sciences): 5% Exploration of the Polar and Mountain Regions: <ul style="list-style-type: none"> • <i>[leading discipline]</i> Earth and related environmental sciences (natural sciences): 95% • social and economic geography and spatial management (social sciences): 5% GIS, remote sensing, applications of geodesy: <ul style="list-style-type: none"> • <i>[leading discipline]</i> Earth and related environmental sciences (natural sciences): 95% • social and economic geography and spatial management (social sciences): 5% Geographic Information Systems: <ul style="list-style-type: none"> • <i>[leading discipline]</i> Earth and related environmental sciences (natural sciences): 95%

		<ul style="list-style-type: none"> social and economic geography and spatial management (social sciences): 5% <p>Hydrology and Water Management:</p> <ul style="list-style-type: none"> [leading discipline] Earth and related environmental sciences (natural sciences): 95% social and economic geography and spatial management (social sciences): 5% <p>Landscape changes monitoring:</p> <ul style="list-style-type: none"> [leading discipline] Earth and related environmental sciences (natural sciences): 95% social and economic geography and spatial management (social sciences): 5% <p>Reconstruction of Geographic Environment:</p> <ul style="list-style-type: none"> [leading discipline] Earth and related environmental sciences (natural sciences): 95% social and economic geography and spatial management (social sciences): 5% <p>Social and Economic Geography and Spatial Management:</p> <ul style="list-style-type: none"> social and economic geography and spatial management (social sciences): 90% [leading discipline] Earth and related environmental sciences (natural sciences): 10% <p>Teacher Training Programme:</p> <ul style="list-style-type: none"> [leading discipline] Earth and related environmental sciences (natural sciences): 95% social and economic geography and spatial management (social sciences): 5%
15.	Number of ECTS credits required to achieve the qualification equivalent to the level of study	Climatology: 120, Exploration of the Polar and Mountain Regions: 120, GIS, remote sensing, applications of geodesy: 120, Geographic Information Systems: 120, Hydrology and Water Management: 120, Landscape changes monitoring: 120, Reconstruction of Geographic Environment: 120, Social and Economic Geography and Spatial Management: 120, Teacher Training Programme: 120
16.	Percentage of the ECTS credits for optional modules in relation to the total number of ECTS credits	Climatology: 65%, Exploration of the Polar and Mountain Regions: 65%, GIS, remote sensing, applications of geodesy: 65%, Geographic Information Systems: 65%, Hydrology and Water Management: 65%, Landscape changes monitoring: 65%, Reconstruction of Geographic Environment: 65%, Social and Economic Geography and Spatial Management: 65%, Teacher Training Programme: 65%
17.	Total number of ECTS credits that a student must obtain in the modules taught	Climatology: 100, Exploration of the Polar and Mountain Regions: 100, GIS, remote sensing, applications of geodesy: 100, Geographic Information Systems: 81, Hydrology and Water Management: 100, Landscape changes monitoring: 100,

		Reconstruction of Geographic Environment: 100, Social and Economic Geography and Spatial Management: 100, Teacher Training Programme: 100
18.	Number of ECTS credits that a student must obtain in modules assigned to disciplines within the humanities or social sciences (not less than 5 ECTS) - in the case of fields of study assigned to disciplines within the fields other than, respectively, humanities or social sciences	Climatology: 5, Exploration of the Polar and Mountain Regions: 5, GIS, remote sensing, applications of geodesy: 5, Geographic Information Systems: 5, Hydrology and Water Management: 5, Landscape changes monitoring: 5, Reconstruction of Geographic Environment: 5, Social and Economic Geography and Spatial Management: 5, Teacher Training Programme: 5
19.	Graduation requirements for a particular specialization	<p><u>Climatology</u></p> <p><u>Exploration of the Polar and Mountain Regions</u></p> <p><u>Geographic Information Systems</u> Obtaining credits for passing all compulsory and declared facultative courses, obtaining at least 120 ECTS points, completing Master's thesis and a positive result of Master's degree exam. Other requirements set out in the Regulations of the University of Silesia and the Faculty of Natural Sciences must also be met.</p> <p><u>GIS, remote sensing, applications of geodesy</u></p> <p><u>Hydrology and Water Management</u></p> <p><u>Landscape changes monitoring</u></p> <p><u>Reconstruction of Geographic Environment</u></p> <p><u>Social and Economic Geography and Spatial Management</u></p> <p><u>Teacher Training Programme</u></p>
20.	Organization of the process of obtaining a degree	
21.	Internships (hours and conditions) in the case of practical programmes and in general university programme - if such requires internship	

22.	Total number of ECTS credits that a student must obtain in internships	Climatology: 0, Exploration of the Polar and Mountain Regions: 0, GIS, remote sensing, applications of geodesy: 0, Geographic Information Systems: 0, Hydrology and Water Management: 0, Landscape changes monitoring: 0, Reconstruction of Geographic Environment: 0, Social and Economic Geography and Spatial Management: 0, Teacher Training Programme: 3
23.	Number of ECTS credits - higher than 50% of the total number of credits - that a student must obtain: <ul style="list-style-type: none"> • in general university programmes within a module connected with research carried out in the scientific or artistic disciplines to develop his/her knowledge and research skills; • in practical programmes within a module to develop practical skills 	Climatology: 87, Exploration of the Polar and Mountain Regions: 87, GIS, remote sensing, applications of geodesy: 87, Geographic Information Systems: 92, Hydrology and Water Management: 87, Landscape changes monitoring: 87, Reconstruction of Geographic Environment: 87, Social and Economic Geography and Spatial Management: 87, Teacher Training Programme: 87
24.	General description of the programme	
25.	General description of the specialization	<p><u>Climatology</u></p> <p><u>Exploration of the Polar and Mountain Regions</u></p> <p><u>Geographic Information Systems</u> General description of the specialization The master's degree study in the area of Geographic Information Systems (GIS) is intended for students who wish to develop their geographical knowledge based on working in the GIS environment. The curriculum includes general and introductory courses offering both theoretical knowledge and practical skills. Specialized courses include: cartography and geodesy, geoinformation, satellite navigation, web and mobile GIS, satellite and aerial remote sensing, services in the area of unmanned aerial vehicles, terrestrial laser scanning, database management systems, GIS programming and modelling as well as courses covering quantitative and qualitative analyses and applications of GIS in environmental studies and spatial planning. Studies in the area of GIS prepare the graduate for employment in local and central administration, spatial planning and landscape architecture, environmental protection units, crisis management centres, business environment companies, geodesy and cartographic enterprises and research institutions.</p> <p><u>GIS, remote sensing, applications of geodesy</u></p> <p><u>Hydrology and Water Management</u></p>

	<p><u>Landscape changes monitoring</u></p> <p><u>Reconstruction of Geographic Environment</u></p> <p><u>Social and Economic Geography and Spatial Management</u></p> <p><u>Teacher Training Programme</u></p>
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