

Tłumaczenie programu studiów na język angielski

Programme of study
Sustainable Development

Name of the field of study	Sustainable Development
Name of the field of study in English / in the language of instruction	Sustainable Development
Language of instruction	English
Level of education	second cycle
Level in the PQF	7
Studies profile	general academic
Number of semesters	4
Number of ECTS credits to graduate	120
Form of studies	full time
Professional title awarded to the graduates (name of the qualification in its original wording, PQF level)	magister
Number of ECTS credits that the student needs to obtain for the classes conducted with direct participation of academic teachers and/or other tutors	60
Number of ECTS credits for the classes in the area of humanities and/or social sciences (not less than 5 ECTS)	6

Assignment of the field of study to a given area of study and academic disciplines

Area of study	Academic discipline	Percentage share of the academic disciplines	Leading academic discipline (more than a half of the learning outcomes)
Natural science	Earth and related environmental sciences	56	Earth and related environmental sciences
Social sciences	economics and finance	9	
Social sciences	law	9	
Social sciences	Socio-economic geography and spatial management	10	
Social sciences	management and quality studies	16	
Total:	-	100%	-

Learning outcomes defined for the field of study by reference to the descriptors of 2nd degree in the Polish Qualification Framework for qualifications at level 6–7 obtained within the framework of the Higher Education and Science System after obtaining full qualification at level 4 of the PQF

Learning outcomes symbol for the field of study	Learning outcomes	Reference to PQF 2 nd degree descriptors
Knowledge: the graduate knows and understands		
K_W01	to a deeper degree the concept of sustainable development in relation to environmental and earth sciences and social and economic dimensions.	P7S_WG; P7S_WK
K_W02	environmental, social as well as economic challenges at regional and global levels and understands the interconnections between them.	P7S_WK

K_W03	to a deeper degree environmental and sustainable development problems and challenges, as well as methods, tools and procedures leading to the achievement of the Sustainable Development Goals at various spatial (global, regional, local) and industry scales such as business, administration and other.	P7S_WG; P7S_WK
K_W04	applicable law on the implementation of sustainable development principles as well as international and national institutions responsible for shaping sustainable development policy.	P7S_WG; P7S_WK
K_W05	to a deeper degree social, legal and technological as well as planning and economic tools for implementing sustainable development in various areas of activity.	P7S_WG; P7S_WK
K_W06	appropriate sustainability indicators.	P7S_WK
K_W07	to a deeper degree interdisciplinary approach to the environment and sustainable development and the contribution of various disciplines to solving problems and challenges related to the environment and sustainable development.	P7S_WG; P7S_WK
K_W08	sources of financial support needed to prepare applications in the field of supporting the principles of implementing sustainable development.	P7S_WK
K_W09	to a deeper degree reliable sources of information and databases needed to verify the information.	P7S_WK
K_W10	to a deeper degree evolutionary and philosophical contexts of natural phenomena.	P7S_WG; P7S_WK
K_W11	safety rules in laboratory and field work.	P7S_WG; P7S_WK
K_W12	to a deeper degree principles of preparing and writing a scientific paper.	P7S_WK
K_W13	general rules and principles regarding the protection of industrial materials and copyrights.	P7S_WK
Skills: the graduate is able to		
K_U01	initiate, actively participate in and lead teams preparing documents and strategies for implementing the principles of sustainable development in various types of institutions and bodies at various levels of management, as well as within civic movements and other social initiatives.	P7S_UW; P7S_UK; P7S_UO
K_U02	work interdisciplinary and cross-sectoral based on knowledge from various subject disciplines and institutional sectors in order to synthesize new ideas and concepts serving the environment and sustainable development.	P7S_UW; P7S_UK; P7S_UO

K_U03	evaluate the actions taken to achieve the Sustainable Development Goals and write and present reports in this regard.	P7S_UW
K_U04	ask critical questions and find appropriate solutions.	P7S_UW
K_U05	use methods of social communication as well as promotion and education in activities implementing solutions in the field of environment and sustainable development.	P7S_UW; P7S_UK; P7S_UU
K_U06	participate in international and local initiatives as well as academic and practical debates on issues environment and sustainable development issues.	P7S_UK
K_U07	identify the strengths and weaknesses of standard actions taken to solve environmental and sustainable development problems.	P7S_UW
K_U08	plan a professional career and apply the principles of sustainable development in their own work.	P7S_UU
K_U09	use modern information techniques (e.g. GIS, remote sensing).	P7S_UW
K_U10	use English at B2+ CEFR level and specialist terminology.	P7S_UK

Social competences: the graduate is ready to		
K_K01	active participation in resolving conflicts and conducting negotiations related to the implementation of sustainable development principles and goals.	P7S_KK; P7S_KO
K_K02	communicate effectively, orally and in writing, with the community and professionals in various fields.	P7S_KR; P7S_KO
K_K03	improving professional skills and observing the rules of professional ethics.	P7S_KK; P7S_KO; P7S_KR
K_K04	verifying and respecting the opinion of other team members, especially subordinates.	P7S_KK; P7S_KO

K_K05	understanding the need to search for new technologies for implementing sustainable development.	P7S_KK; P7S_KR
K_K06	care for the reliability and credibility of their research work.	P7S_KK; P7S_KO; P7S_KR
K_K07	respecting the rules of intellectual property.	P7S_KK; P7S_KR
K_K08	coordinating the work of the team, in particular in terms of the division of duties and time management.	P7S_KK; P7S_KO
K_K09	entrepreneurial thinking and acting in the implementation of the Sustainable Development Goals.	P7S_KO

EXPLANATIONS

The learning outcomes symbol for the programme of study includes:

- letter K – to highlight the fact that the learning outcome refers to the programme of study
- – (underscore),
- one of the letters W, U and/or K – to mark the category of learning outcomes (W – knowledge (Polish: wiedza), U – skills (Polish: umiejętności), K – social competences (Polish: kompetencje społeczne),
- learning outcome number in a given category, written in the form of two digits (precede the digits 1–9 with a 0).

Classes and/or groups of classes assigned to a given term of studies

Year of studies: first

Semester: first

Course title	Form of classes – number of hours								Total: number of class hours	ECTS points Total:	Programme of study learning outcomes	Academic discipline(s) related to the course
	Lecture	Seminar classes	Seminar	Practical classes	Laboratory classes	Workshops	Project work	Other				
Global Changes – Synthetic Outlook and the Concept of Sustainable Development	30								30	3	K_W01; K_W02; K_W03; K_W05; K_W10; K_U02; K_U03; K_U07; K_U10; K_K01; K_K05	Earth and related environmental sciences; biological sciences; economics and finance; socio-economic geography and spatial management
Course Content	<ol style="list-style-type: none"> 1. An introduction to causes and mechanisms of global environmental changes. 2. The history of interactions between human and nature. 3. The mechanisms, causes and consequences of the climate change, water depletion and disturbance of water cycling, pollution and disruption of biogeochemical cycles, and biodiversity crisis. 4. Historical and institutional background of the idea of sustainable development. 5. The interdisciplinary character of the sustainability science. 											

Assessment of learning outcomes	Written exam- test							
Functioning of Nature and Ecosystem Services	30		30		60	4	K_W01; K_W06; K_W09; K_W10; K_U02; K_U04; K_U07; K_U10; K_K02; K_K03	Earth and related environmental sciences; biological sciences
Course Content	<ol style="list-style-type: none"> 1. The energy flow in ecosystems. 2. The key environmental cycles (water, phosphorous, nitrogen, carbon). 3. Species interactions and trophic webs. 4. Ecosystem services: provisioning, supporting, regulating, cultural. 5. The imbalance between exploitation of ecosystem services as the major source of environmental crisis. 6. Functioning of selected ecosystems: oceans and coral reefs, freshwater, forests, wetlands, agro-ecosystems. 							
Assessment of learning outcomes	Written exam.							

Emerging Sustainable Development Law	30		30		60	4	K_W04; K_W05; K_U02; K_U04; K_U05; K_U06; K_U10; K_K01; K_K02	law
Course content	<ol style="list-style-type: none"> 1. Emergence of International Sustainable Development Law. 2. Constitutionalizing Sustainable Development. 							

	<ol style="list-style-type: none"> 3. Principles of International Law Related to Sustainable Development. 4. Cross-Border Sustainable Development Legal Issues. 5. Human Rights Dimension of Sustainable Development. 6. Operationalizing Sustainable Development – from Global to Internal Level. 7. Armed Conflicts and Sustainable Development. 										
Assessment of learning outcomes	Written exam.										
Sustainable Development Economics	<table border="1"> <tr> <td data-bbox="496 1632 528 1727">30</td> <td data-bbox="496 1536 528 1632"></td> <td data-bbox="496 1350 528 1536"></td> <td data-bbox="496 1164 528 1350"></td> <td data-bbox="496 978 528 1164"></td> <td data-bbox="496 792 528 978"></td> <td data-bbox="496 607 528 792">60</td> <td data-bbox="496 421 528 607">4</td> <td data-bbox="496 235 528 421"> K_W01; K_W02; K_W03; K_W05, K_W06, K_W08; K_U01; K_U02; K_U04; K_U07; K_U10; K_K02; K_K04 </td> <td data-bbox="496 150 528 235">economics and finance</td> </tr> </table>	30						60	4	K_W01; K_W02; K_W03; K_W05, K_W06, K_W08; K_U01; K_U02; K_U04; K_U07; K_U10; K_K02; K_K04	economics and finance
30						60	4	K_W01; K_W02; K_W03; K_W05, K_W06, K_W08; K_U01; K_U02; K_U04; K_U07; K_U10; K_K02; K_K04	economics and finance		
Course content	<ol style="list-style-type: none"> 1. Basic economics. 2. Development economics. 3. Market failures and the environment. 4. Natural resources management. 5. Economic valuation of non-market goods. 6. Economic instruments of environmental policy. 7. Implementation of sustainable development in national law. 8. Transforming the economy towards sustainable development. 										
Assessment of learning outcomes											

	Written exam.						
Climate Change and its Human Aspect	30	15	45	3	K_W01; K_W02; K_W06; K_W07; K_W09; K_W10; K_U02; K_U03; K_U04;K-U05, K_U07; K_U08; K_U10; K_K01; K_K02; K_K04, K_K05, K_K06	Earth and related environmental sciences; physical sciences; psychology	
Course content	<ol style="list-style-type: none"> 1. Climate vs. weather. Climate system: components and parameters. Climate measurements and observations. 2. Energy balance of planet Earth. Solar constant, planetary albedo, greenhouse effect. Climate forcing and feedbacks. 3. Natural climate forcing and climate changes across geological history of the planet. Anthropocentric climate forcing and actual climate change. 4. Human fingerprints on climate: evidence. 5. Climate modelling: principles, verification, projections. Climate scenarios. Carbon budget. 6. IPCC assessment reports. 1.5 degree and beyond 7. Psychology of climate change denial, disavowal and ignorance 8. Public and media discourses of climate change, discourses of climate delay 9. Emotional appraisal of climate change: climate anxiety, distress, grief and other emotions. Climate emotions in education. 10. Psychology of individual and collective climate action. Problems of agency. 						

	11. Backlash and stereotypes surrounding climate action and environmentalism.							
	12. Psychological benefits of nature, and regenerative psychology.							
Assessment of learning outcomes	Graded credit based on completed work: presentation, essay and project.							
Introduction to Ocean Science and Polar Research			30		30	2	K_W01; K_W02; K- W07;K_W09;K_W01 0; K_U02; K_U03; K_U04; K_U06; K_U07; K_U10; K_K01; K_K02;K_K06	Earth and related environmental sciences; chemical sciences; biological sciences
Course content	<ol style="list-style-type: none"> Expanding knowledge in the field of oceanology, in particular marine chemistry. Drawing attention to current problems in the protection of marine environments. Understanding the specifics of the polar regions (their environment, history of discoveries and research). Inspiring you to further expand your knowledge and possibly engage in projects for the sea. Providing an interdisciplinary view of the presented issues. Exchange of experiences and learning how to present research issues. 							
Assessment of learning outcomes	Graded credit based on final papers and presentations							
Waste Management	10	25	15	25	75	5	K_W01; K_W02; K_W05; K_W06; K_W11; K_U02; K_U03; K_U04; K_U07;	Earth and related environmental sciences; chemical sciences; biological sciences

																			K_K01; K_K02; K_K04; K_K05; K_K06;	
Course content	1.	Environmentally friendly technologies used in waste management.																		
	2.	Analytical techniques necessary for reliable assessment of environmental pollution.																		
	3.	The rules of sustainable development in waste management.																		
	4.	The legislation and regulations of transport, storage, treatment and disposal of waste.																		
	5.	Plastics waste management.																		
	6.	Radioactive waste disposal.																		
	7.	Novel methods for exhaust gases utilization (CO2, SOx, NOx).																		
	8.	Waste management based on circular economy.																		
	Classes will include various forms of conducting: lecture, laboratory work, field trips to facilities dealing with waste management.																			
Assessment of learning outcomes	Graded credit based on presentation and project report.																			
Challenges of the Social Dimension of Sustainability	30																30	3	K_W01; K_W02; K_W07; K_U01; K_U02; K_U03; K_U04; K_U07; K_U10; K_K01; K_K02; K_K04	management and quality studies
Course content	1.	The main dimensions of social sustainability: equitable access and the sustainability of the community itself.																		
	2.	Social sustainability within the frames of Sustainable Development Goals (SDGs).																		

	<p>3. Social reception of Sustainable Development concept.</p> <p>4. Challenges to social aspect of Sustainable Development; the underlying social and psychological mechanisms (e.g. bounded rationality model of decision making, not-invented-here syndrome, conformity, categorization, principles of social influence).</p> <p>5. Dissemination of knowledge about sustainable development.</p>												
<p>Assessment of learning outcomes</p>	<p>Written exam</p>												
<p>Elective Classes</p>	<table border="1"> <tr> <td data-bbox="451 1630 502 1727"></td> <td data-bbox="451 1541 502 1630"></td> <td data-bbox="451 1451 502 1541"></td> <td data-bbox="451 1361 502 1451"></td> <td data-bbox="451 1272 502 1361"></td> <td data-bbox="451 1182 502 1272"></td> <td data-bbox="451 1093 502 1182"></td> <td data-bbox="451 1003 502 1093"></td> <td data-bbox="451 913 502 1003">30</td> <td data-bbox="451 824 502 913">2</td> <td data-bbox="451 409 502 824"> K_W01; K_W02; K_W03; K_W05; K_W07 K_U01; K_U02; K_U04; K_U07; K_U10; K_K01; K_K02; K_K04; K_K05 </td> <td data-bbox="451 150 502 409"> Earth and related environmental sciences; philosophy; economics and finance; law; communication and media studies; education; management and quality studies; biological sciences; chemical sciences; physical sciences </td> </tr> </table>									30	2	K_W01; K_W02; K_W03; K_W05; K_W07 K_U01; K_U02; K_U04; K_U07; K_U10; K_K01; K_K02; K_K04; K_K05	Earth and related environmental sciences; philosophy; economics and finance; law; communication and media studies; education; management and quality studies; biological sciences; chemical sciences; physical sciences
								30	2	K_W01; K_W02; K_W03; K_W05; K_W07 K_U01; K_U02; K_U04; K_U07; K_U10; K_K01; K_K02; K_K04; K_K05	Earth and related environmental sciences; philosophy; economics and finance; law; communication and media studies; education; management and quality studies; biological sciences; chemical sciences; physical sciences		
<p>Course content</p>	<p>Elective Classes in the semester I aim in developing students' knowledge, skills and social competences in understanding the concept of sustainable development from the perspectives of the environment, human economy and culture. Diverse aspects of Sustainable Development Goals will be explored. During the Elective Classes different didactic forms will be used.</p>												

Assessment of learning outcomes	Graded credit / exam.
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Total number of ECTS credits 30 (in a semester):

Total number of class hours 420 (per semester):

Total number of class hours specified in the programme of study for every field of study, level and profile (for the entire cycle): 1405

Year of studies: first

Semester: second

Course title	Form of classes – number of hours							Total: number of class hours	ECTS points Total:	Programme of study learning outcomes	Academic discipline(s) related to the course
	Lecture	Seminar classes	Seminar	Practical classes	Laboratory classes	Workshops	Project work				
Courses common for all the specialisations											
International Environmental Law		15						15	1	K_W04; K_W05; K_U02; K_U04; K_U05; K_U10; K_K01; K_K02	law

	<ol style="list-style-type: none"> 1. Introduction to the subject - environment and international law. 2. Sources and instruments of international environmental law. 3. Principles. 4. System of the international environmental governance. 5. Compliance issues. 6. Liability for environmental damage. 7. Sanctions. 											
Assessment of learning outcomes	<p>Graded credit based on student's presentation.</p> <table border="1" data-bbox="612 150 1099 1727"> <tr> <td data-bbox="612 1630 1099 1727">30</td> <td data-bbox="612 1541 1099 1630"></td> <td data-bbox="612 1442 1099 1541"></td> <td data-bbox="612 1344 1099 1442"></td> <td data-bbox="612 1245 1099 1344"></td> <td data-bbox="612 1146 1099 1245"></td> <td data-bbox="612 1048 1099 1146"></td> <td data-bbox="612 949 1099 1048">60</td> <td data-bbox="612 851 1099 949">4</td> <td data-bbox="612 409 1099 851"> K_W01; K_W02; K_W03; K_W05; K_U01; K_U02; K_U03; K_U07; K_U10; K_K02; K_K04 </td> <td data-bbox="612 150 1099 409"> Earth and related environmental sciences; Socio-economic geography and spatial management; biological sciences; chemical sciences </td> </tr> </table>	30							60	4	K_W01; K_W02; K_W03; K_W05; K_U01; K_U02; K_U03; K_U07; K_U10; K_K02; K_K04	Earth and related environmental sciences; Socio-economic geography and spatial management; biological sciences; chemical sciences
30							60	4	K_W01; K_W02; K_W03; K_W05; K_U01; K_U02; K_U03; K_U07; K_U10; K_K02; K_K04	Earth and related environmental sciences; Socio-economic geography and spatial management; biological sciences; chemical sciences		
Course content	<ol style="list-style-type: none"> 1. Definitions and concepts of urban sustainability, as well as the ways in which it can be promoted in practice. 2. Contemporary urbanization. 3. Urban development and spatial planning. 4. Housing provision. 5. Urban infrastructure. 											

	<p>6. Urban biodiversity.</p> <p>7. Water resource management in urban areas.</p> <p>8. Innovative, sustainable metropolitan interventions and solutions.</p>																											
<p>Assessment of learning outcomes</p>	<p>Lecture: written exam. Exercises: presentation during the seminar part, involvement during the field part.</p>																											
<p>Agriculture, Food Production and Biodiversity</p>	<table border="1"> <tr> <td data-bbox="389 1630 544 1727">30</td> <td data-bbox="389 1442 544 1630"></td> <td data-bbox="389 1254 544 1442"></td> <td data-bbox="389 1066 544 1254"></td> <td data-bbox="389 878 544 1066"></td> <td data-bbox="389 689 544 878">60</td> <td data-bbox="389 501 544 689">4</td> <td data-bbox="389 313 544 501"> K_W01; K_W02; K_W03; K_W07; K_W10; </td> <td data-bbox="389 125 544 313"> Earth and related environmental sciences; </td> </tr> <tr> <td data-bbox="549 1630 703 1727"></td> <td data-bbox="549 1442 703 1630"></td> <td data-bbox="549 1254 703 1442"></td> <td data-bbox="549 1066 703 1254"></td> <td data-bbox="549 878 703 1066"></td> <td data-bbox="549 689 703 878"></td> <td data-bbox="549 501 703 689"></td> <td data-bbox="549 313 703 501"> K_U01; K_U02; K_U04; K_U06; K_U07; K_U10; </td> <td data-bbox="549 125 703 313"> biological sciences; </td> </tr> <tr> <td data-bbox="708 1630 874 1727"></td> <td data-bbox="708 1442 874 1630"></td> <td data-bbox="708 1254 874 1442"></td> <td data-bbox="708 1066 874 1254"></td> <td data-bbox="708 878 874 1066"></td> <td data-bbox="708 689 874 878"></td> <td data-bbox="708 501 874 689"></td> <td data-bbox="708 313 874 501"> K_K01; K_K02; K_K04 </td> <td data-bbox="708 125 874 313"> socio-economic geography and spatial management; chemical sciences </td> </tr> </table>	30					60	4	K_W01; K_W02; K_W03; K_W07; K_W10;	Earth and related environmental sciences;								K_U01; K_U02; K_U04; K_U06; K_U07; K_U10;	biological sciences;								K_K01; K_K02; K_K04	socio-economic geography and spatial management; chemical sciences
30					60	4	K_W01; K_W02; K_W03; K_W07; K_W10;	Earth and related environmental sciences;																				
							K_U01; K_U02; K_U04; K_U06; K_U07; K_U10;	biological sciences;																				
							K_K01; K_K02; K_K04	socio-economic geography and spatial management; chemical sciences																				
<p>Course content</p>	<ol style="list-style-type: none"> 1. History of the agriculture on Earth. 2. Spatial patterns of contemporary agriculture. 3. Connection of traditional land use with high biodiversity. 4. Regional threats to semi natural ecosystems. 5. Environmental threats caused by rapid changes in agriculture: deforestation, habitat fragmentation, land grabbing, eutrophication, wide use of antibiotics and pesticide, genetically modified organisms and pollination crisis. 6. The impact of the development of renewable energy sources (photovoltaic power station, wind turbines) on agriculture and biodiversity. 7. International institutions and organizations acting for sustaining agriculture and food production. 8. Food acquired from the natural ecosystems. 																											

	9. Modern trends in food production: organic farming, artificial meat and urban agriculture.									
Assessment of learning outcomes	Written exam.									
Management of Natural Resources				45			45	3	K_W01; K_W02; K_W03; K_W05; K_W06; K_W07; K_U01; K_U02; K_U03; K_U04; K_U06; K_U07; K_U09; K_U10; K_K01; K_K02; K_K04; K_K08; K_K09	Earth and related environmental sciences; biological sciences; chemical sciences; management and quality studies
Course content	<ol style="list-style-type: none"> 1. Current ways of exploitation and use of non-renewable resources (e.g. minerals, metal ores, fossil fuels). 2. Current ways of exploitation and use of renewable resources (e.g. edible plants and animals, wood, soils, wind and solar power, water). 3. Search for sustainable solutions or alternatives of use of natural resources. 									
Assessment of learning outcomes	Graded credit based on project and presentation.									
Geographic Information System (GIS) as Support in Decision Making Process				30			30	2	K_W01; K_W02; K_W07; K_W09; K_U01; K_U02; K_U09; K_U10; K_K05	Socio-economic geography and spatial management; economics and finance;
Course content	1. Spatial data resources.									

	<p>2. Spatial data models.</p> <p>3. File systems used in GIS.</p> <p>4. Management, analysis and presentation of spatial, natural, economic and social information.</p> <p>Participation in classes improves students' IT competences.</p>							
Assessment of learning outcomes	Graded credit based on project.							
The Principles of Ecosystem Services Assessment		30			30	2	K_W02; K_W03; K_W05; K_W06; K_W07; K_U01; K_U02; K_U05, K_U06; K_U07; K_K01, K_K03; K_K05; K_K010	Earth and related environmental sciences; socio-economic geography and spatial management;
Course content	<p>1. Introduction of the ecosystem planning concept and ways of its implementing in spatial management and conservation.</p> <p>2. Provisional, regulating and cultural ecosystem services in cross scale and cross disciplinary perspectives.</p> <p>3. Planning and the assessment of the selected ES at the local or regional scale.</p>							
Assessment of learning outcomes	Graded credit based on project.							
Cost-Benefit Analysis and Natural Resources	30				30	2	K_W02; K_W03; K_W05; K_W06; K_U01; K_U02; K_U04; K_U07; K_U08; K_U10; K_K02; K_K05; K_K08	economics and finance

Course content	<ol style="list-style-type: none"> 1. Microeconomic Foundations of Cost-Benefit Analysis. 2. Economic value of environment. 3. Shadow prices. 4. Valuing environmental Impacts - revealed preferences and stated preferences methods. 5. Discounting benefits and costs, Risk and uncertainty. 6. Accuracy of CBA and Related evaluation methods such as Cost-Effectiveness Analysis and Multi Criteria Analysis. 										
Assessment of learning outcomes	Graded credits based on presentation, test.										
Diploma Seminar I			30						30	2	<p>K_W01; K_W02; K_W03; K_W05; K_W06; K_W07; K_W12; K_W13</p> <p>K_U02; K_U04; K_U06; K_U07; K_U08; K_U09; K_U10;</p> <p>K_K02; K_K03; K_K05; K_K06; K_K07; K_K09</p> <p>Earth and related environmental sciences; philosophy; economics and finance; socio-economic geography and spatial management; law; communication and media studies; management and quality studies; biological sciences; chemical science; physical sciences</p>

Course content	Methodology and methods of thesis preparation. Depending on the student's choice of writing diploma project.									
Assessment of learning outcomes	Preparing the outline of the diploma thesis , proposing research methodology, developing the chapter of the diploma thesis.									
Interactions of Human and Nature – Field Workshop					60		60	4	K_W01; K_W02; K_W03; K_W06; K_W07; K_W11; K_U01; K_U02; K_U04; K_U06; K_U08; K_U09; K_U10; K_K04; K_K06; K_K08	Earth and related environmental sciences; biological sciences
Course content	<ol style="list-style-type: none"> 1. Implementation of scientific knowledge (from the field of both natural and social sciences) in practical cases of interactions of human with nature. 2. Gathering of environmental and social data to understand the background of each case. 3. Development of possible future scenarios and their evaluation, with the use of Sustainable Development principles. 4. Preparation of evidence-based action and management plan implementing the chosen scenario. 									
Assessment of learning outcomes	Participation in the Classes improves students' IT competences. Graded credits on a report prepared by the student									
Elective Classes (subjects to be chosen by students for 6 ETCS)										
Elective Classes							90	6	K_W02; K_W03; K_W05; K_W06; K_W09;K_W11; K_U01; K_U02; K_U03; K_U04;	Earth and related environmental sciences; socio-economic geography and spatial

Year of studies second
Semester of studies: third

Course title	Form of classes – number of hours							Total: number of class hours	ECTS points Total:	Learning outcomes for the specialisation	Academic discipline(s) related to the course
	Lecture	Seminar classes	Seminar	Practical classes	Laboratory classes	Workshops	Project work				
Green Innovations- Strategies and Diffusion.		30						30	3	K_W02; K_W03; K_W07; K_W09; K_U01; K_U02; K_U04; K_U05; K_U06; K_U10; K_K02; K_K04; K_K05; K_K09	management and quality studies
Course content	<ol style="list-style-type: none"> 1. Innovation processes (supply-push and demand pull). 2. Types of innovations (architectural, radical, disruptive, incremental). 3. Main theories of innovation. 4. Market strategies adopted by innovative technology companies. 5. Application of the concept of sustainable innovation management to different areas of business. 6. Impact of the new technologies on sustainable development and its application in organization management. 7. Knowledge diffusion and knowledge spillovers in terms of sustainable development. 										

Assessment of learning outcomes	Written exam.										
Indicators of Sustainable Development	30					30	2	K_W03; K_W05; K_W06; K_W09; K_W08 K_U04; K_U07; K_U10; K_K05	economics and finance; biological sciences; Earth and related environmental sciences		
Course content	<ol style="list-style-type: none"> 1. Introduction to the indicator approach. 2. Measurement of sustainable development. 3. Indicators on the international forum. 4. Synthetic indicators. 5. Structural indicators. 6. Indicators on the local level. 7. Policy guidelines with indicators. 										
Assessment of learning outcomes	Written exam.										
Sustainable Development Strategies – Global, Local and Institutional					30	30	3	K_W03; K_W05; K_W07; K_W09; K_U02; K_U03; K_U04; K_U09; K_U10;	management and quality studies		

									K_K01; K_K02; K_K04; K_K08; K_K09
Course content	<ol style="list-style-type: none"> 1. Analysis of macro-environment (local and national, regional and international level). 2. Analysis of competitive environment. 3. Stakeholder analysis. 4. Internal analysis of an organization. 5. Competitive advantage and corporate social responsibility. 6. Strategy formulation, implementation and reporting. 7. Building business models (business model canvas). 								
Assessment of learning outcomes	Graded credit based on presentation.								
Sustainability Reporting					30			30	K_W03; K_W05; K_W07; K_W09; K_U02; K_U03; K_U04; K_U09; K_U10; K_K01; K_K02; K_K04; K_K08
Course content	<ol style="list-style-type: none"> 1. Discussion of regulatory and operational challenges within an organization to incorporating ESG goals into strategy and non-financial reporting practice. 2. Sustainable investments according to the Sustainable Finance Disclosure Regulation and the Taxonomy EU Regulation. 								

	3. The latest reporting standards introduced by the Corporate Sustainability Reporting Directive and associated European Sustainability Reporting Standards.						
Assessment of learning outcomes	Graded credit based on final work/presentation and activity during classes.						
Sustainable Development and beyond: New concepts for the future	30				30	2	K_W01; K_W02; K_W05; K_W07; K_U01; K_U02; K_U04; K_U06; K_U07; K_K02; K_K04; K_K06; K_K08 Earth and related environmental sciences; socio-economic geography and spatial management
Course content	<ol style="list-style-type: none"> 1. The main lines of critique of sustainable development. 2. The current trends in discussions about sustainability. 3. New concepts of social-ecological transformation. 4. The ideas and practical solutions offered by concepts like degrowth, doughnut economics, ecomodernism. 5. The political proposals of these new concepts, e.g. the Green New Deal. 6. How these ideas are being implemented, and what are the lessons learned. 						
Assessment of learning outcomes	Graded credit based on an essay or mini research project						
Development of Mind and Science: Philosophical Inquiries	30				30	2	K_W07; K_W10; K_U02; K_U04; K_U10; K_K05; K-K07 philosophy

Course content	<ol style="list-style-type: none"> 1. The relationship between the development of our mind and the acquisition of language and reasoning abilities. 2. The interrelationship between our ability to think and decide. 3. The nature of scientific development. 4. Connecting theory as a product of our minds with the outside world. 							
Assessment of learning outcomes	Graded credit based on participation in discussions during classes, and the results of tests conducted during classes.							
Diploma seminar II	30	30	30	30	30	30	30	<p>K_W01; K_W02; K_W03; K_W05; K_W06; K_W07; K_W12; K_W13</p> <p>K_U02; K_U04; K_U06; K_U07; K_U08; K_U09; K_U10;</p> <p>K_K02; K_K03; K_K05; K_K06; K_K07; K_K09</p> <p>Earth and related environmental sciences; philosophy; economics and finance; socio-economic geography and spatial management; law; communication and media studies; management and quality studies; biological sciences; chemical science; physical sciences</p>
Course content	Methodology and methods of thesis preparation. Depending on the student's choice of writing diploma project.							
Assessment of learning outcomes	Preparation of an outline/chapter of a diploma thesis.							

Elective Classes (subjects to be chosen by students for 9 ETCS)											
Elective Classes								90	9	K_W02; K_W03; K_W04; K_W05; K_W06;K_W07 K_U01; K_U02; K_U03; K_U04; K_U05; K_U06; K_U07; K_U09; K_U10; K_K01; K_K02; K_K04; K_K05; K_K08; K_K09	Earth and related environmental sciences; social and economic; management and quality studies; economics and finance; communication and media studies
Course content	Elective classes in the third semester aimed at developing students' knowledge, skills and social competences in the field of concepts such as: entrepreneurship, leadership & CSR, selected environmental management and certification tools, modelling consumer preferences in the field of environmental goods, design for social innovations:										
Assessment of learning outcomes	Graded credit / exam.										
Elective Classes (OGUN in Humanities)								20 (min)	2		Humanities
Course content	Depending on the student's choice from the University of Warsaw's offer of humanities and social subjects. The program content for the subject is consistent with the subject syllabus.										
Assessment of learning outcomes	Depends on the selected classes.										

Elective Classes (OGUN)									30	2		A subject offered by the University of Warsaw or other universities; all disciplines
Course content	Depending on the student's choice from the offer of the University of Warsaw or other universities. Program content for the subject in accordance with the course syllabus and depending on the choice of the offer of the University of Warsaw or other universities. Program content for the subject in accordance with the syllabus. Depends on the selected optional classes.											
Assessment of learning outcomes	Depends on the selected classes.											

Total number of ECTS credits 30 (in a semester):

Total number of class hours: min. 350 (per semester)

Total number of class hours specified in the program of study for every field of study, level and profile (for the entire cycle): 1405

Year of studies second
Semester of studies: fourth (in words)

Course title	Form of classes – number of hours								Total: number of class hours	ECTS points Total:	Programme of study learning outcomes	Academic discipline(s) related to the course
	Lecture	Seminar classes	Seminar	Practical classes	Laboratory classes	Workshops	Project work	Other				
Greenwashing		15							15	1	K_W02; K_W04; K_W06; K_W07; K_U02; K_U03; K_U04; K_U06. K_U07; K_U10; K_K01; K_K07	law
Course content	<ol style="list-style-type: none"> Getting to know the basics of misleading methods regarding environmental impact (greenwashing). Case studies on implementations and initiatives undertaken within the framework of corporate social responsibility (CSR), which quickly became symbols of misleading misrepresentation (greenwashing) The course will combine knowledge of the theoretical and legal framework regarding greenwashing, with work on past case studies and their correction by course participants. 											
Learning outcomes assessment	Graded credit based on a final paper/presentation.											
Research Study								120	120	7	K_W02; K-W03, K_W05; K-W06; K_W07; K_W11; K_W13	Earth and related environmental sciences, philosophy, economics and finance; socio-economic

											K_K02; K_K03; K_K05; K_K06; K_K07; K_K09	communication and media studies; management and quality studies; biological sciences; chemical sciences; physical sciences
Course content	Methodology and methods of thesis preparation. Depending on the student's choice of writing diploma project.											
Learning outcomes assessment	Credit for submitting the diploma dissertation.											
Elective Classes (OGUN in Humanities)								20 (min)	2			humanities
Course content	Depending on the choice of the student from the UW's offer of subjects in the fields of humanities and social science. The program content for the course is in line with the course syllabus.											
Learning outcomes assessment	Depends on the type of the chosen Elective Classes.											

Total number of ECTS credits 30 (in a semester):

Total number of class hours: min. 185 (per semester):

Total number of class hours specified in the program of study for every field of study, level and profile (for the entire cycle): 1405

Percentage share of the number of ECTS credits in the total number of credits for each of the disciplines the field of study has been assigned to.

Area of study	Academic discipline	Percentage share of the number of ECTS credits in the total number of ECTS credits for each academic discipline
Natural sciences	earth and related environmental sciences	57
Social sciences	management and quality studies	13
Social sciences	law	4
Social sciences	economics and finance	9
Social sciences	socio-economic geography and spatial management	5

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