



COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
Environmental Economics	

Academic staff	Core academic unit(s)
Coordinating: prof. dr. S. Žičkienė Other: prof. dr. Ingrida Šaulienė	Šiauliai Academy Regional Development Institute, Vytauto str. 84

Study cycle	Type of the course unit
First	Interdisciplinary studies

Mode of delivery	Semester or period when it is delivered	Language of instruction
Face-to-face / distance and individual work	Spring and fall semesters	English

Requisites	
Prerequisites: English language skills	Co-requisites (if relevant): No

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	130	48	82

Purpose of the course unit		
To develop the ability to analyse and evaluate the interaction between economic activity and the state of the environment, identifying the economic and environmental consequences of this interaction, the costs of environmental protection and the implementation of the Sustainable Development Goals (2030 Agenda for Sustainable Development). Students will acquire the analytical skills needed to assess the economic impact of environmental policies, to identify economic decisions that lead to environmental degradation, and to ensure the sustainable management of natural resources. By integrating knowledge of economics and environmental science, this course provides an interdisciplinary approach to solving environmental problems.		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Will know the concept of Sustainable development and the context of the Sustainable Development Goals (SDGs), emphasizing the links between economic growth and environmental quality.	Problem-oriented lectures, individual assignments (analysis and synthesis of information on the topic, case studies). Preparation and presentation of individual written work, preparation and presentation of group written work	Individual written work and its presentation, group written work and its presentation, activity during seminars and workshops, test and exam.
Will know resource management models and be able to analyse and evaluate the differences between the use of common and private property resources.	Problem-oriented lectures, individual assignments (literature and case studies, discussion). Preparation and presentation of individual written work, preparation and presentation of group written work	Individual written work and its presentation, group written work and its presentation, activity during seminars and workshops, test and exam.
Will know the methods for assessing environmental resources and be able to apply them in practice.	Traditional lectures, individual assignments (case studies, problem-solving). Preparation and presentation of individual written work, preparation and presentation of group written work	Individual written work and its presentation, group written work and its presentation, activity during seminars and workshops, test and exam.
Will understand the mechanism of environmental policy and the interactions	Problem-oriented lectures, individual assignments (analysis and summary of	Individual written work and its presentation, group written

between policy instruments and be able to evaluate critically their effectiveness.	articles on the topic, case studies, discussion). Preparation and presentation of individual written work, preparation and presentation of group written work.	work and its presentation, activity during seminars and workshops, test and exam.
Will be able to link economic and environmental solutions to increase the resilience of ecosystems to environmental change and ensure the sustainability of ecosystem services.	Problem-oriented lectures, individual assignments (analysis and summary of articles on the topic, case studies, discussion). Preparation and presentation of individual written work, preparation and presentation of group written work	Individual written work and its presentation, group written work and its presentation, activity during seminars and workshops, test and exam.
Will be able to think logically and critically, make decisions, and work responsibly, independently, and in teams.	All individual and group assignments (information retrieval and summarisation, article analysis, case studies, discussion, etc.), individual written work, and group written work.	Individual written work and its presentation, group written work and its presentation, activity during seminars and workshops, test and exam.

Content	Contact hours						Individual work: time and assignments		
	Lectures /e. learning	Tutorials /e. learning	Seminars /e. learning	Workshops /e. learning	Laboratory work	Internship	Contact hours, total	Individual work	Tasks for individual work
1. Introductory lecture.	2						2		
2. Environment, conservation, and economic activity. Sustainable development concept and goals up to 2023, challenges achieving the goals.	2		2				4	4	Read a chapter in the book B. C. Field, M. K. Field (2017). Environmental Economics, 20-30 p. and prepare a 5-7 minute reflection. Review the video's 17 goals (https://sdgs.un.org/goals) and prepare a 5-7-minute reflection. Discussion.
3. Environmental resource management models. Material balance model. Environmental property rights.	4		4				8	6	Video materials: Environment and Natural Resource Management, Sustainable management of natural resources. Prepare for 10 minutes of discussion. Drafting the problem analysis as a part of an individual written work
4. Public goods and market failures. The tragedy of the commons (G. Hardin, 1968), the use of public goods. Market failures and information asymmetries.	2		2				4	6	Read a chapter in the book B. C. Field, M. K. Field (2017). Environmental Economics, 60-76 p. Prepared to answer questions posed during the lecture. Drafting the problem analysis as a part of an individual written work
5. Biodiversity loss and protection mechanisms: drivers and consequences of biodiversity loss, 15 SDGs to prevent and reverse land degradation and to stop biodiversity loss.	2		2				2	4	Read the EU Biodiversity Strategy 2030 on your own (prior to the lecture). Know the objectives of the strategy and the main commitments for the period. Discussion during the seminar. Preparation of a group essay on the scientific reasoning and regulatory aspects of the problem analysis.
6. Preparation for Mid-term test								8	The test is based on the materials presented in lectures and provided for independent work, covering topics 2-5.
7. Mid-term test. Resilience and resources for the blue environment: understanding the blue economy and marine	2		2				4	6	30 minutes of seminar time is given for mid-term assessment (test). An analysis of the literature on the EU blue economy. Reading „Transforming

resources, SDG 14, good practices in sustainable water resources management									the EU's blue economy for a sustainable future". Discussion during the seminar. Group work on the writing exercise related to environmental monitoring, sustainable development indicators and collection of original research data.
8. Ecological damage, costs of ecological damage: biodiversity and blue environment aspects. Ecological damage function, methods for calculating costs.	2			2			4	6	Read a chapter in the book B. C. Field, M. K. Field (2017). Environmental Economics, 79-87 p. During the exercise, calculate the economic damage caused by biodiversity loss, with an emphasis on an interdisciplinary approach. Watch video materials: One Earth; Seven Billion Dreams and prepare a short oral reflection on the case (5-7 minutes). Drafting the problem analysis as a part of an individual written work
9. Environmental valuation methods (travel costs, avoided costs, hedonistic price method, etc.)	2			2			4	4	Read a chapter in the book B. C. Field, M. K. Field (2017) Environmental Economics, 132-149 p. and apply one of the methods discussed in the lecture and the book to the assessment of recreational and ecosystem services in natural and urbanized environments. Prepare a 5-7 minute presentation. Summarizing the results of individual written work, drawing conclusions
10. Administrative and economic mechanisms to protect the environment: taxes, pollution permits, subsidies, fines, etc.	2		2				6	8	Read a chapter in the book B. C. Field, M. K. Field (2017) Environmental Economics, 202-219 p., and 221-243 p. Carry out a comparative analysis of economic instruments (given case) and prepare a 5-7 minute oral presentation. Discussion during the seminar. Preparing the presentation of individual written work and preparing for discussion. Presentation during the seminar.
11. Climate change and pollution - interlinked environmental challenges: the impact of climate change on pollution levels; mitigation strategies for climate change and pollution control outlined in the 13 SDGs.	2		2				4	6	An analysis of the literature on the EU blue economy. Read the strategy "EU Transforming the EU's Blue Economy for a Sustainable Future ", be able to explain in a reasoned way the systematic nature of adaptation and resilience actions. Discussion during the seminar. Group work on the writing part on data analysis and systematisation of results.
12. Sustainable development as a key to the viability of ecosystem services: integrating ecosystem services into sustainable development programming, reducing the negative impacts of cities on the environment and the natural heritage, in line with SDG 11. Presentation of a group written work during the seminar	2		2				4	8	Read the article Strategic use of ecosystem services and co-benefits for Sustainable Development Goals (https://doi.org/10.1002/sd.2448). Understand how the EU strategies covered in the course contribute to the United Nations Sustainable Development Goals. Preparation of a group written work presentation and preparation for discussion. Presentation during the seminar.
13. Preparation for exam		2					2	16	The examination is based on the material presented in lectures and provided for independent work, covering 7-12 topics.
Total	24	2	18	4			48	82	

Assessment strategy	Weight %	Deadline	Assessment criteria
Work in seminars and workshops	20	Throughout the semester	Students' participation in seminars and workshops is assessed in terms of participation in discussions, presentation of reasoned opinions, application of theoretical knowledge to practice and completion of assignments. A student may score between 0 and 1 point in a class, depending on the level of engagement. 1 point - students actively participate in discussions and learning activities organized by the lecturer and apply theoretical knowledge during practical sessions. They complete the tasks given in a timely and correct manner. 0.5 points - students passively participate in discussions and learning activities organized by the teacher, even when encouraged and apply theoretical knowledge to some extent. Only part of the given tasks is completed on time and correctly. 0 points - students do not engage in discussions and activities organized by the teacher, even when encouraged, and do not solve problems during practical sessions. A student can score 10 points per semester (the course includes 8 seminars and 2 workshops), which are multiplied by a weighting factor (20%) in the final assessment.
Mid-term test (test in the VU Virtual Learning Environment (VMA))	15	Week 6 (from the start of the course)	The test is based on the materials presented in lectures and on independent work covering topics 2-5. Its aim is to assess students' knowledge and understanding. The test consists of 10 open-ended questions and 10 closed-ended questions for a maximum of 10 points. Each answer is assessed at 0,5 points: Open-ended questions are assessed on this scale: • 0,5- Excellent and good knowledge and skills, there may be minor mistakes. • 0,25 - Average knowledge and skills, there are mistakes, but knowledge and skills still meet minimum requirements. • 0 - Minimum requirements are not met. Closed-ended questions have three-four possible answer options (only one answer is correct). If the correct answer is marked, it is evaluated as 0, 5 points, and incorrect - 0 points. Interdisciplinary-competence achievement level: • Excellent, when the student scores 9-10 points. • Typical, when the student scores 6 - 8 points. • Threshold, where the student scores 5 points. Knowledge and skills do not meet minimum criteria/below minimum criteria when the student scores 1-4 points Students who reach at least the threshold level acquire interdisciplinary competence. Failure to pass the test prevents the student from taking the exam. In the final assessment, the test score is multiplied by a weighting factor 15%.
Individual written work (IW)	20	12th week (from the start of the course)	The individual written work consists of two components - the written work (80% of grade) and the presentation (20% of grade). Students choose one of the topics provided by the teacher. Students can also suggest topics of interest/relevance to them. The work must integrate an interdisciplinary approach integrating economic and environmental aspects. The scope of the paper must be between 8 000 – 10 000 characters (including spaces). Individual work must be prepared and sent to the teacher by e-mail at least 2 days before the presentation. If the content of the work does not meet the requirements (grade is less than 5 points), no presentation is required, and the student is not allowed to take the exam. The individual written work will be assessed according to the following levels of achievement of interdisciplinary competence:

			Excellent (9-10). The work is theoretically sound, and the aims, and objectives are properly formulated and expressed. Full and creative use of scientific literature, research materials, and global databases. The work demonstrates the student's creativity and innovative thinking. The conclusions are consistent with the aim and objectives of the study, are logical and comprehensive, with appropriate citations of the sources used. Typical (6-8). The work is theoretically sound, but the aims and objectives are not sufficiently well formulated and expressed. Knowledge and information from other disciplines and a wide range of literature sources are underused. The conclusions are partly in line with the aims and objectives of the work but are not sufficiently detailed, and there are inaccuracies in the citation of the sources used. Threshold (5). The work is descriptive. Lack of reasoning and logic. Limited number of scientific sources, little use of former research results and databases. Some of the conclusions are based on theoretical/literary analysis, but general conclusions are dominant, do not reveal the substance of the results obtained, and have few references and citations of scientific sources. Intermediate level of achievement (1-4) where the work does not meet the minimum requirements. The level of achievement of the interdisciplinary competencies in the presentation will be assessed according to the following criteria: Excellent (9-10). Speaks fluently and does not use notes. Expresses ideas clearly, demonstrates competence in the subject matter, and presents results persuasively and emotionally. Do not exceed the time limit (10 minutes). Logic is respected - the most important information is given first, followed by additional information. The presentation is free of details; the main results are delivered. The student answers the questions. Typical (6-8). Speaks quite freely, only occasionally uses notes. Expresses ideas clearly, but only partially demonstrates competence on the subject. Does not respect the time limit - the presentation is short or exceeds 10 minutes. Does not follow the logic of the presentation - the essential and supplementary information is not separated. The presentation contains a lot of details; the student continues the presentation even if the audience is bored or realizes that the time limit is exceeded. Answers only part of the questions asked. Threshold (5). Uses notes regularly during the presentation. Expresses ideas clearly when reading materials from notes but cannot speak fluently without notes. Demonstrates only partial competency in the subject and does not respect the time limit - the presentation is short or exceeds 10 minutes. Students do not follow the logic of presenting the results - the essential and supplementary information is not separated; also, they do not respond to the audience and continue the presentation even if they see that the audience is bored or realize that the time limit is exceeded. Fails to answer questions. Not reached level (1-4). The presentation does not meet the minimum requirements or is not prepared (0 points). If the presentation is evaluated less than 5 points, the examination is not allowed. This assessment emphasizes an interdisciplinary approach, the application of the principles of sustainable development.
Group written work (GW)	20	14th week (from the start of the course)	The group's written work consists of two main components - the written work (80% of grade) and the presentation (20% of grade). Students can choose the topic of the paper from a list provided by the lecturer or propose their own topical ideas. The thesis must show an interdisciplinary approach integrating economic and environmental aspects and demonstrate active collaboration within the student group. The length of the paper should be between 10 000

			and 15 000 characters (including spaces). The thesis must be sent to the tutor by e-mail at least 2 days before the due date. If the grade of the thesis is less than 5 points, no presentation is required, and no examination is allowed. The written work will be assessed according to the following levels of achievement of interdisciplinary competence: Excellent (9-10) when the theoretical rationale is well argued, the aims and objectives are clearly formulated, the use of scientific sources and research material is creative, the conclusions are logical and comprehensive, and the sources are properly cited. Typical (6-8) where the thesis is theoretically sound but the aims and objectives are not sufficiently well formulated, a variety of sources are used, but the conclusions are inaccurate or incomplete, and there are errors in the citation of sources. Threshold (5) where the work is descriptive, lacks theoretical justification and logic, limited use of scientific sources, little reference to existing research, conclusions are general and do not reflect the substance of the results. Intermediate level of achievement (1-4) where the work does not meet the minimum requirements. The level of achievement of the interdisciplinary competencies in the presentation of the paper is assessed according to the following criteria: Excellent (9-10). Students speak fluently, do not use notes, maintain attention, convey ideas clearly, demonstrate interdisciplinary competence, follow logic, and present only essential information. Answers questions within the time limit (10 min.). Typical (6-8). Speaks fluently but occasionally uses notes; expresses ideas clearly but demonstrates only partial competence; does not respect the time limit; provides many details. Answers only part of the questions. Threshold (5). Continuous use of notes, difficulty expressing ideas; does not respect time limit, does not show interdisciplinary competence; confusion between essential and supplementary information. Unable to answer questions. Not reached level (1-4). The presentation does not meet the minimum requirements or is not prepared (0 points). If the presentation is less than 5 points, the examination is not allowed. This assessment emphasizes an interdisciplinary approach, the application of the principles of sustainable development, and teamwork.
Exam (E) (test in the VU Virtual Learning Environment (VMA))	25	During the exam session	The exam is open to students who have passed the mid-term test and have reported back on tasks (individual and group written work). Tasks are a set of lecture materials and materials provided for independent work, covering 7-12 topics. Knowledge and understanding are assessed by answering 20 open-ended and 20 closed-ended questions. A maximum of 10 marks is possible. Each answer is assessed at 0,25 points: Open-ended questions are assessed on this scale: • 0,5- Excellent and good knowledge and skills, there may be minor mistakes. • 0,25 - Average knowledge and skills, there are mistakes, but knowledge and skills still meet minimum requirements. • 0 - Minimum requirements are not met. Closed-ended questions have three-four possible answer options (only one answer is correct). If the correct answer is marked, it is evaluated as 0,25 points and incorrect - 0 points. Interdisciplinary-competence achievement level: • Excellent, when the student scores 9-10 points. • Typical, when the student scores 6 - 8 points. • Threshold, where the student scores 5 points.

			Knowledge and skills do not meet minimum criteria/below minimum criteria when the student scores 1-4 points Students who reach at least the threshold level acquire interdisciplinary competence. In the final assessment, the exam score is multiplied by a weighting factor 25%.
Final assessment = IW 20% + T 15% + IW 20% + GW 20% + E 25% IW – work during seminars and workshops, T – mid-term test, IW – individual written work, GW- group written work, E - exam. The assessment strategy, using the specified criteria delivered in the first lecture, can be implemented in the VU Virtual Learning Environment (VMA) and MS Teams platform.			

Author (-s)	Publishing year	Title	Issue of publication	Publishing house or web link
Required reading				
Field, Barry C., Field, Martha K.	2017	Environmental Economics	-	New York: McGraw-Hill
Wang Jianhua and Shen Minmin.	2022	The Impact of Pro-environmental Awareness Components on Green Consumption Behavior: The Moderation Effect of Consumer Perceived Cost, Policy Incentives, and Face Culture	-	Front. Psychol., 17 Sec. Environmental Psychology, Volume 13. https://doi.org/10.3389/fpsyg.2022.580823
Kasparinskis Raimonds, Ruskule Anda, Vinogradovs Ivo, Viloslada Miguel	2018	The guidebook on “the introduction to the Ecosystem service framework and its application in Integrated planning”	-	https://vivagrass.eu/wp-content/uploads/2018/10/guidebook_ecosystem_services_vivagrass-compressed.pdf
European Commission	2020	EU biodiversity strategy for 2030	-	https://eur-lex.europa.eu/EN/legal-content/summary/eu-biodiversity-strategy-for-2030.html
European Commission	2021	EU Transforming the EU's Blue Economy for a Sustainable Future	-	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0240
European Commission	2021	Forging a climate-resilient Europe. The new EU Strategy on Adaptation to Climate Change	-	https://eur-lex.europa.eu/legal-content/LT/TXT/?uri=COM:2021:82:FIN
EC. Ministry of environment	2020	EU guidance on integrating ecosystems and their services into decision-making, Commission Staff Working Document, 2019-07-18, SWD (2019) 305, PART 1, 2, 3)	-	https://data.consilium.europa.eu/doc/document/ST-11395-2019-ADD-1/en/pdf
Recommended reading				
Andı Simge and Painter James	2020	How much do people around the world care about climate change?	-	The Conversation UK. https://theconversation.com/how-much-do-people-around-the-world-care-about-climate-change-we-surveyed-80-000-people-in-40-countries-to-find-out-140801
Plumpton Heather, Dhaliwal Jasmine, Giritharan	2023	Profit without loss How conserving resources benefits the economy, businesses and consumers	-	Green alliance. https://green-alliance.org.uk/wp-content/uploads/2023/11/Profit-without-loss.pdf

Arpana and Peake Libby				
Brown Weiss	2014	Voluntary Commitments as Emerging Instruments in International Environmental Law	-	Environmental Policy and Law, 44 (1-2). https://core.ac.uk/download/pdf/70375531.pdf
Liobilienė Genovaitė, Poškus Mykolas Simas.	2019	The Importance of Environmental Knowledge for Private and Public Sphere Pro-Environmental Behavior.	-	Sustainability, 11(12), 3324; https://doi.org/10.3390/su11123324
Doran, Peter	2021	Doing More with Less: Ensuring Sustainable Consumption and Production.	-	IISD https://www.iisd.org/articles/doing-more-less-ensuring-sustainable-consumption-and-production
Tamašauskienė Zita, Žičkienė Skaidrė	2019	Externalities and Sustainability Processes.	In: Leal Filho W. (eds) Encyclopedia of Sustainability in Higher Education.	Springer, Cham (Department of Economics Northeastern University Boston USA).
	2014	Sustainable management of natural resources. Video materials.	-	https://www.youtube.com/watch?v=4qA3KBFrB2o
	2017	Environment and Natural Resource Management. Video materials.	-	https://www.google.com/search?client=firefox-b-e&sca_esv=589030635&sxsrf=AM9HkKkFJJisXvSviS-15RGn3xOTOVNw:1702026885403&q=environmental+resource+management+youtube&tbm=vid&source=lnms&sa=X&ved=2ahUKEwiF85ufwP-CAxXscvEDHewXAyoQ0pQJegQICxAB&biw=1200&bih=560&dpr=1.33#fpstate=ive&vld=cid:8f456360,vid:Ly29ci-qgf8,st:0
		One Earth. Video materials	-	https://www.youtube.com/watch?v=QQYgCxu988s
		Seven Billion Dreams. Video materials	-	https://www.youtube.com/watch?v=JyL58vlbvgw
		Climate change. Video materials	-	https://www.youtube.com/watch?v=-D_Np-3dVBQ
		THE 17 GOALS	-	https://sdgs.un.org/goals

Rubrics of the course

COMPETENCE	THRESHOLD LEVEL OF ACHIEVEMENT	TYPICAL LEVEL OF ACHIEVEMENT	EXCELLENT LEVEL OF ACHIEVEMENT
	The complexity of the problem is not sufficiently defined, and there is a lack of justification for why a cross-cutting approach is needed to tackle environmental issues.	The complexity of the problem is described, but the relevance of a cross-cutting approach is not sufficiently highlighted, in particular by linking economic and environmental aspects.	The issue is analyzed comprehensively, drawing on relevant literature from different disciplines, showing the importance of interdisciplinary knowledge in sustainable environmental solutions.

Recognition of Interdisciplinary Perspectives	The insights provided are superficial and ignore important economic and ecological factors.	Interdisciplinary perspectives are valid, but not all relevant aspects are included or properly analyzed.	Data and research from different disciplines are integrated and provide an informed overview of the importance of cross-cutting solutions for achieving the Sustainable Development Goals.
	Links between ecological and economic factors are only superficially identified due to a lack of confidence in one or more of the approaches to an integrated analysis of the impact of the factors on the state of the environment and economic activity	Only some of the links between ecological and economic factors are identified, and their interdependence is substantiated. Still, the impact of the factors on the state of the environment and economic activity is not fully developed and sufficiently coherent.	The links between ecological and economic factors are established, their interdependence is logically justified, and the impact on the change of the state of the environment and economic activity is analyzed in a comprehensive way.
	Interdisciplinary terms (concepts) are presented unconsolidated or incompletely without linking them to economic and environmental concepts.	Scientific terms (concepts) related to environmental economics are used from various disciplines, but some are not sufficiently in-depth and lack coherence and logic.	A comprehensive and coherent discussion of environmental economics' key terms (concepts) and their application to analyzing and addressing sustainable development challenges. The economic, social, and ecological perspectives on sustainable development are analyzed.
Collaborative and Innovative Thinking	There is a lack of openness to ideas and insights from other disciplines, which limits the scope for finding effective solutions.	Ideas from other disciplines are discussed, but their implications are not fully appreciated or integrated into the decision-making process.	Ideas from other disciplines are critically evaluated and integrated into decision-making, providing innovative and informed alternatives to address environmental challenges. Demonstrated understanding of how combining knowledge from different disciplines solves a problem.
	Standard approaches dominate the decision-making process, with little analysis of new ideas and a lack of interdisciplinary approaches.	Some out-of-the-box solutions are proposed, but their analysis or application is incomplete, and the solutions lack innovation or interdisciplinarity.	Innovative solutions are presented on the basis of cross-cutting research that demonstrates the ability to link knowledge from different disciplines to find solutions to reconcile economic development with environmental protection.
Collaboration	Collaboration is sporadic, with minimal involvement in interdisciplinary team activities.	Team members' opinions are heard, but their suggestions are not sufficiently integrated into the decision-making process.	Listen to the views of all team members, objectively evaluate the proposals, and integrate knowledge from different disciplines.
	Knows the basic rules of teamwork but relies on the expertise of only a few members, limiting opportunities to learn from others.	Teamwork rules are usually followed, relying on the competencies of the majority of team members to work together.	Teamwork rules are always respected, relying on the competencies of all members, creating an atmosphere of mutual trust and cooperation.
	Feedback is given, but team members are not always willing to respond promptly, complicating the collaboration process.	Feedback is given appropriately, and team members' suggestions are usually considered and appreciated but not always consistently applied.	Constructive feedback is implemented, allowing for productive discussion, evaluation, and implementation of proposals.
	The ability to compromise in an interdisciplinary team exists, but tensions and stresses interfere working together.	Compromise with other interdisciplinary team members is usually found, thus avoiding tensions that limit effective joint working.	When dealing with complex problems, it is possible to effectively seek and reach a compromise by setting priorities

			and upholding the values of the interdisciplinary team.
	Tasks are distributed unevenly, and team members have limited division of responsibilities.	Tasks are distributed more objectively, but not all team members' opinions are considered equally important for achieving common goals.	Tasks are distributed evenly, the opinions of all team members are considered objectively, and the team is open to discussion, which ensures effective work.
Communication in an Interdisciplinary Team	Knowledge from different disciplines about the environmental and economic issues being addressed and communicated not properly and makes it difficult to take an informed decision.	Knowledge from different disciplines is transferred to the team, but understanding may vary depending on the members' training or experience in dealing with environmental and economic issues.	Knowledge from different disciplines is communicated in a detailed, clear, and structured manner (considering the background of the team members) to ensure an understanding of the complexities involved in reconciling environmental and economic development. This enables informed decision-making.
	Differences of opinion are heard but often viewed overly critically, which limits open dialogue and collaboration within the interdisciplinary team.	Different opinions are listened to, and ideas are considered, but unjustified criticism and bias can hinder successful interdisciplinary collaboration.	Different views are listened to and objectively evaluated, encouraging open and constructive dialogue within an interdisciplinary team, especially in the search for complex economic and environmental solutions.
	Insights on the economy and environment interaction are not clearly presented. They are not understood by all interdisciplinary team members, slowing down the process of solving complex problems.	Insights into the interaction between the economy and the environment are presented with sufficient clarity to help the members of the interdisciplinary team better understand the processes and issues involved and to collaborate more effectively on complex problems.	Insights into the interaction between the economy and the environment are presented in a clear and accessible way, allowing all interdisciplinary team members to work together successfully to tackle complex problems most effectively.
Critical Reflection	The reflection is limited to existing experience, without incorporating new insights or perspectives, particularly regarding the problems of rational interaction between the environment and economic development.	The reflection identifies some of the assumptions and challenges faced in addressing the rational interaction between the environment and economic development.	The reflection provides detailed insights into the challenges, learning difficulties, and results achieved at all stages of the learning process in addressing the rational interaction between the environment and economic development.
	The reflection on problem-solving processes in the field of environmental economics is superficial and does not reveal personal perceptions of economic and ecological problems.	The reflection on problem-solving processes in the field of environmental economics is more detailed, but personal perceptions of the complexity of economic and ecological problems are underestimated.	The reflection details the problem-solving process in environmental economics, considering the personal perception of the complexity of economic and ecological problems and assessing existing and acquired competencies.