FIŞA DISCIPLINEI
University year 2024-2025

- **Program information**

1..1 Higher education institution	Babeş-Bolyai University
1.2. Faculty	Environmental Science and Engineering
1.3. Department	Environmental Engineering
1.4. Study domain	Environmental Science
1.5. Study cycle	Bachelor
1.6. Study program	Environmental management and audit

- **Subject data**

2.1. Name of the subject	Environmental economy						
2.2. Course activities holder			Asist dr. Marcel Pîrvu				
2. 3 Seminar activities holder			Asist dr. Marcel Pîrvu				
2.4. Year of study	II	2.5. Semester	IV	2.6. Type of evaluation	E	2.7. Course type	DS; Mandatory

- **Total estimated time** (hours per semester of teaching activities)

3.1. Number of hours per week	4	Of which: 3.2. course	2	3.3. seminar/lab	2
3.4. Total hours from the teaching plan	48	Of which: 3.5. course	24	3.6. seminar/lab	24
Time distribution					h
Study from the manual, course notes, bibliography					12
Extra documentation in the library or on online platforms					8
Preparing for seminars/labs, homework, assignments, essays					12
Tutorial activities					4
Examination					2
Other activities	Preparing for final exam				10
3.7. Total hours of individual study					48
3.8. Total hours per semester					96
3.9. Number of credits					4

- **Prerequisites** (if it is the case)

4.1. of curriculum	-
4.2. of competence	-

- **Conditions** (if it is the case)

5.1. For conducting the course	Classroom equipped with a video projector and computer
5.2. For conducting the seminar/lab	Classroom equipped with a video projector and computer

- **Specfic competences acquired**

Professional competences	Understanding the fundamental theoretical and practical elements of environmental economics. The ability to better understand the interaction between the economy and the natural environment, particularly the ecological crisis, viewed as a consequence of development. The ability to better comprehend the nature and role of sustainable development, which can mitigate the damage already caused to the environment and prevent future destruction. A deeper awareness that achieving sustainable development requires proper management of biodiversity, renewable and non-renewable energy sources, natural and anthropogenic risk management, reduction of the consequences of global climate change, relevant economic evaluations of the environment, etc. Knowledge of sustainable development strategies at both European and national levels.
transversal competences	Collecting, processing, and analyzing information regarding the interaction between the external environment and the enterprise/organization. Applying principles, norms, and values of professional ethics within one's own strategy for rigorous, efficient, and responsible work. The ability to better understand the economy-environment interaction to become more proficient experts in environmental sciences and beyond.

- **Course objectives**

7.1. General course objective	The course aims to present and analyze the reciprocal influence between the economy and the natural environment, the requirements of sustainable development, and solutions for achieving sustainable development.
7.2. Specific objectives	The course aims to: • Provide students with the theoretical and practical foundations of environmental economics. • Develop a better understanding of the interaction between the economy and the natural environment, particularly the ecological crisis, seen as a consequence of development. • Enhance the understanding of the nature and role of sustainable development, which can mitigate past environmental damage and prevent future destruction. • Increase awareness that achieving sustainable development requires proper management of biodiversity, renewable and non-renewable energy sources, natural and anthropogenic risk management, reduction of the consequences of global climate change, relevant economic evaluations of the environment, etc. • Familiarize students with sustainable development strategies at the European and national levels.

- **Content**

8.1. Course	Teaching method	Observations
Economics – part I	interactive lecture, projector	The origin of the term eco-economy The main conceptual framework of the interaction between economy and ecology Opinions on the subject of eco-economy
Economics – part II	interactive lecture, projector	Pure Economy, Applied Economy, and Social Economy Positive Eco-Economy and Normative Eco-Economy The main functions of eco-economy

The interaction between the economy and the natural environment	interactive lecture, projector	What nature provides to humans, the economy, and society Natural capital: its utility and value. Exploiting natural capital Human domination of nature: content, forms, and characteristics Independence, dependence, interdependence
Theoretical and practical foundations of environmental economics	interactive lecture, projector	The systemic approach to eco-economy The objective laws governing eco-economy dynamics The greening of science and economic activity • The greening of economic science • The greening of economic actions and activities
The growth and development of environmental economics	interactive lecture, projector	A brief historical overview of the theory of eco-economic growth and development Forms and types of eco-economic growth and development The value and costs of eco-economic growth and development Internalizing the costs of protecting and restoring the natural environment
The ecological crisis - features, causes, remedies – Part I	interactive lecture, projector	What does the ecological or environmental crisis represent? Major signs of the ecological crisis
The ecological crisis - features, causes, remedies – Part II	interactive lecture, projector	Causes of the ecological crisis Some remedies for mitigating and overcoming the crisis
Energy - environment, economy, perspectives – Part I	interactive lecture, projector	General considerations Fossil fuels
Energy - environment, economy, perspectives – Part II	interactive lecture, projector	Renewable energies Nuclear energy
Biodiversity – development, extinctions, conservation, and economic evaluation	interactive lecture, projector	General considerations Development, extinctions, and biodiversity Assessment of extinction risk levels Current causes of species extinction Nature conservation Ecological economics
Natural and anthropogenic risks – their economic impact	interactive lecture, projector	General considerations Seismic risks Flood risks Exploitation of underground mineral resources and their impact on the environment The cost of damages
The environment and corporate responsibility – realities and perspectives in the 21st century	interactive lecture, projector	General considerations From the water crisis to food security Addressing energy issues – a fundamental concern of the 21st century Waste and environmental quality Global climate warming Sustainable development – a goal for our Present and Future Responsibility for the future
Bibliography	Mandatory bibliography: 1. Negucioiu, A., Petrescu. D. C. (2006), *Introducere în Eco-Economie*, EFES. Optional bibliography:	

- Azqueta, D. (2002), *Introducción a la Economía Ambiental*, Ed. Mc Graw Hill, Madrid.
- Bădileanu, M. (2002), *Economia protecţiei mediului înconjurător*, Ed. Sylvi, Bucureşti.
- Beaumais, O. (coord.) (2002), *Économie de l'environnement. Méthodes et débats,* Ed. Documentation française, Paris.
- Bleahu, M. (2001), *Priveşte înapoi cu mânie... Priveşte înainte cu spaimă*, Ed. Economică, Bucureşti.
- Bobeică, V. (2007), *Producerea durabilă*, Universitatea de Stat din Moldova, Ministerul Ecologiei şi Resurselor Naturale, Chişinău.
- Bran, F., Simon, T., Nistoreanu, P. (2000), *Ecoturism*, Ed. Economică, Bucureşti.
- Brown, R. L. (2001), *Eco-economie. Crearea unei economii pentru planeta noastră*, Ed. Tehnică, Bucureşti.
- Bűrgenmeier B. (2005), *Économie du développement durable,* Ed. De Boeck, Bruxelles.
- Burny, Ph, Petrescu, D. C. (2008), *Environmental Economics*, EFES, Cluj-Napoca, Les Presses Agronomiques de Gembloux ASBL, Gembloux.
- Clemente, G., Sanjuán, N., Vivancos, J. L. (editori) (2005), *Análisis de Ciclo de Vida: Aspectos Metodológicos y Casos Prácticos*, Ed. Universidad Politécnica de Valencia, Valencia.
- Fabian, A, Onaca, R. (1999), *Ecologie aplicată. Cine se teme de ecologie?*, Casa de editură Sarmis, Cluj-Napoca.
- Ghereş, M. (2003), *Agroturism*, Ed. Risoprint, Cluj-Napoca.
- Ghereş, M., Rusu, T., Ghereş, M. I. (2003), *Economia mediului şi protecţia agrosistemelor*, Ed. Risoprint, Cluj-Napoca.
- Grecu, I. (2003), *Economia şi Managementul de Mediu*, Ed. Europolis, Constanţa
- Horaicu, C. (2004), *Monitorizarea integrată a mediului*, Ed. Tipo Moldova, Iaşi.
- Ionescu, T., Petrescu, D. C. (2006), *Studii de istorie a gândirii economice,* EFES.
- Negrei, C. (2002), *Economia şi politica mediului*, Ed. ASE, Bucureşti
- Manoliu, M., Ionescu, C. (1998), *Dezvoltare durabilă şi protecţia mediului*, HGA, Bucureşti.
- Pârvu, C. (2001), *Ecologie generală*, Ed. Tehnică, Bucureşti.
- Petrescu, D. C. (2006), *Economia integrării europene*, Ed. Carpatica, Cluj-Napoca.
- Petrescu, I. (coord.) (2002), *Catastrofe geologice*, Ed. Dacia, Cluj-Napoca.
- Petrescu-Mag, R. M. (2007), *Politica Agricolă Comună – trecut, prezent şi viitor*, EFES, Cluj-Napoca.
- Petrescu-Mag, R. M. (2008), *Politici, instituţii şi legislaţie pentru mediu*, Ed. AcademicPres, Cluj-Napoca.
- Riera, P., García, D., Kriström, B., Brännlund R. (2005), *Manual de Economía Ambiental y de los Recursos Naturales*, Ed. Thomson, Madrid.
- Ristoiu, T., Ristoiu, D. (2004), *Elemente de ecologie*, Ed. U.T. Pres, Cluj-Napoca.
- Rojanschi, V., Bran, F., Diaconu, Gh. (2002), *Protecţia şi ingineria mediului*, Ed. Economică, Bucureşti.
- Rojanschi, V., Bran, F., Grigore, F. (2004), *Elemente de economia şi managementul mediului*, Ed. Economică, Bucureşti.
- Teleuţă, Al., Duca, Gh., Stratan, A., (2003), *Economia mediului şi dezvoltarea durabilă*, Ed. UASM, Chişinău.
- Vişan, S., Angelescu, A., Alpopi C. (2000) *Mediul înconjurător. Poluare şi protecţie*, ed. a II a, Ed. Economică, Bucureşti.
- Zaharia, C. (2004), *Energia şi mediul*, Ed. Universităţii „Alexandru Ioan Cuza", Iaşi.
- *** (2002), *Semne vitale 2002*, Worldwatch Institute, Ed. Tehnică, Bucureşti.

8.2. Seminar / laborator	Metode de predare	Observaţii
Economics – part I	Examples, Analysis, Case Studies	The origin of the term eco-economy The main conceptual framework of the interaction between economy and ecology Opinions on the subject of eco-economy
Economics – part II	Examples, Analysis,	Pure Economy, Applied Economy, and Social Economy

	Case Studies	Positive Eco-Economy and Normative Eco-Economy The main functions of eco-economy
The interaction between the economy and the natural environment	Examples, Analysis, Case Studies	What nature provides to humans, the economy, and society Natural capital: its utility and value. Exploiting natural capital Human domination of nature: content, forms, and characteristics Independence, dependence, interdependence
Theoretical and practical foundations of environmental economics	Examples, Analysis, Case Studies	The systemic approach to eco-economy The objective laws governing eco-economy dynamics The greening of science and economic activity • The greening of economic science • The greening of economic actions and activities
The growth and development of environmental economics	Examples, Analysis, Case Studies	A brief historical overview of the theory of eco-economic growth and development Forms and types of eco-economic growth and development The value and costs of eco-economic growth and development Internalizing the costs of protecting and restoring the natural environment
The ecological crisis - features, causes, remedies – Part I	Examples, Analysis, Case Studies	What does the ecological or environmental crisis represent? Major signs of the ecological crisis
The ecological crisis - features, causes, remedies – Part II	Examples, Analysis, Case Studies	Causes of the ecological crisis Some remedies for mitigating and overcoming the crisis
Energy - environment, economy, perspectives – Part I	Examples, Analysis, Case Studies	General considerations Fossil fuels
Energy - environment, economy, perspectives – Part II	Examples, Analysis, Case Studies	Renewable energies Nuclear energy
Biodiversity – development, extinctions, conservation, and economic evaluation	Examples, Analysis, Case Studies	General considerations Development, extinctions, and biodiversity Assessment of extinction risk levels Current causes of species extinction Nature conservation Ecological economics
Natural and anthropogenic risks – their economic impact	Examples, Analysis, Case Studies	General considerations Seismic risks Flood risks Exploitation of underground mineral resources and their impact on the environment The cost of damages
The environment and corporate responsibility – realities and perspectives in the 21st century	Examples, Analysis, Case Studies	General considerations From the water crisis to food security Addressing energy issues – a fundamental concern of the 21st century Waste and environmental quality Global climate warming Sustainable development – a goal for our Present and Future

		Responsibility for the future
Bibliografie	Mandatory bibliography: 1. Negucioiu, A., Petrescu. D. C. (2006), *Introducere în Eco-Economie*, EFES. Optional bibliography: • Azqueta, D. (2002), *Introducción a la Economía Ambiental*, Ed. Mc Graw Hill, Madrid. • Bădileanu, M. (2002), *Economia protecţiei mediului înconjurător*, Ed. Sylvi, Bucureşti. • Beaumais, O. (coord.) (2002), *Économie de l'environnement. Méthodes et débats,* Ed. Documentation française, Paris. • Bleahu, M. (2001), *Priveşte înapoi cu mânie... Priveşte înainte cu spaimă*, Ed. Economică, Bucureşti. • Bobeică, V. (2007), *Producerea durabilă*, Universitatea de Stat din Moldova, Ministerul Ecologiei şi Resurselor Naturale, Chişinău. • Bran, F., Simon, T., Nistoreanu, P. (2000), *Ecoturism*, Ed. Economică, Bucureşti. • Brown, R. L. (2001), *Eco-economie. Crearea unei economii pentru planeta noastră*, Ed. Tehnică, Bucureşti. • Bűrgenmeier B. (2005), *Économie du développement durable,* Ed. De Boeck, Bruxelles. • Burny, Ph, Petrescu, D. C. (2008), *Environmental Economics*, EFES, Cluj-Napoca, Les Presses Agronomiques de Gembloux ASBL, Gembloux. • Clemente, G., Sanjuán, N., Vivancos, J. L. (editori) (2005), *Análisis de Ciclo de Vida: Aspectos Metodológicos y Casos Prácticos*, Ed. Universidad Politécnica de Valencia, Valencia. • Fabian, A, Onaca, R. (1999), *Ecologie aplicată. Cine se teme de ecologie?*, Casa de editură Sarmis, Cluj-Napoca. • Ghereş, M. (2003), *Agroturism*, Ed. Risoprint, Cluj-Napoca. • Ghereş, M., Rusu, T., Ghereş, M. I. (2003), *Economia mediului şi protecţia agrosistemelor*, Ed. Risoprint, Cluj-Napoca. • Grecu, I. (2003), *Economia şi Managementul de Mediu*, Ed. Europolis, Constanţa • Horaicu, C. (2004), *Monitorizarea integrată a mediului*, Ed. Tipo Moldova, Iaşi. • Ionescu, T., Petrescu, D. C. (2006), *Studii de istorie a gândirii economice,* EFES. • Negrei, C. (2002), *Economia şi politica mediului*, Ed. ASE, Bucureşti • Manoliu, M., Ionescu, C. (1998), *Dezvoltare durabilă şi protecţia mediului*, HGA, Bucureşti. • Pârvu, C. (2001), *Ecologie generală*, Ed. Tehnică, Bucureşti. • Petrescu, D. C. (2006), *Economia integrării europene*, Ed. Carpatica, Cluj-Napoca. • Petrescu, I. (coord.) (2002), *Catastrofe geologice*, Ed. Dacia, Cluj-Napoca. • Petrescu-Mag, R. M. (2007), *Politica Agricolă Comună – trecut, prezent şi viitor*, EFES, Cluj-Napoca. • Petrescu-Mag, R. M. (2008), *Politici, instituţii şi legislaţie pentru mediu*, Ed. AcademicPres, Cluj-Napoca. • Riera, P., García, D., Kriström, B., Brännlund R. (2005), *Manual de Economía Ambiental y de los Recursos Naturales*, Ed. Thomson, Madrid. • Ristoiu, T., Ristoiu, D. (2004), *Elemente de ecologie*, Ed. U.T. Pres, Cluj-Napoca. • Rojanschi, V., Bran, F., Diaconu, Gh. (2002), *Protecţia şi ingineria mediului*, Ed. Economică, Bucureşti. • Rojanschi, V., Bran, F., Grigore, F. (2004), *Elemente de economia şi managementul mediului*, Ed. Economică, Bucureşti. • Teleuţă, Al., Duca, Gh., Stratan, A., (2003), *Economia mediului şi dezvoltarea durabilă*, Ed. UASM, Chişinău. • Vişan, S., Angelescu, A., Alpopi C. (2000) *Mediul înconjurător. Poluare şi protecţie*, ed. a II a, Ed. Economică, Bucureşti. • Zaharia, C. (2004), *Energia şi mediul*, Ed. Universităţii „Alexandru Ioan Cuza", Iaşi. • *** (2002), *Semne vitale 2002*, Worldwatch Institute, Ed. Tehnică, Bucureşti.	

- **Correlation of the Discipline's Content with the Expectations of the Epistemic Community, Professional Associations, and Representative Employers in the Field**

The content of the discipline aligns with the curriculum offered by other university centers both nationally and internationally. To adapt the discipline's content to labor market requirements, meetings were held with representatives from the business sector

- **Evaluation**

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Weighting in the Final Grade
10.4. Course	Knowledge of the theoretical concepts presented Correct application of theory in practice	Final exam	60%
10.5. Seminar/lab	Correct solving of exercises and case studies Interest in individual preparation, seriousness in addressing problems	Tests/projects	30%
		Points for active participation in seminars/labs	10%
10.6. Minimum performance standard			
Knowledge of the basic theoretical concepts presented Correct application of theory in practice for simple exercises/case studies			

Date

1. 10. 2016

Signature of course activities holder

Asist. univ. dr. Marcel Pîrvu

Date of approval in the department

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Signature of the department director

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