

COURSE SYLLABUS

Ecological security

2025-2026 Academic year

1. Information about the program

1.1. Higher education institution	Babeş-Bolyai University
1.2. Faculty	History and Philosophy
1.3. Doctoral school	International Relations and Security Studies
1.4. Field of study	History/ International Relations and European Studies /Sociology
1.5. Study cycle	Doctorate

2. Discipline information

2.1. Name of the course	Ecological security			Course code	RISS_04
2.2. Course activity holder	Dr. Anca Elena Gurzău				
2.3. Seminar activities holder	Dr. Anca Elena Gurzău				
2.4. School Year	1	2.5. Semester	2	2.6. Type of evaluation	Exam
2.7. Discipline status	Optional	2.8. Discipline type		Specialization course	

3. Total estimated time (hours per semester of teaching activities)

3.1. Number of hours per week	3	From which: 3.2. curs	2	3.3. seminar/ laboratory/ project	1
3.4. Total hour in the curriculum	36	From which: 3.5. curs	24	3.6 seminar/laboratory	12
Distribution of time allocation for individual study (IS) and self- learning activities (SL)					hours
Study using the textbook, course materials, bibliography, and notes (SL)					64
Additional research in the library, on specialized electronic platforms, and in the field					90
Preparation of seminars/labs/projects, homework, reports, portfolios, and essays					56
Tutoring (career counseling)					
Examinations					4
Other activities					
3.7. Total hours of individual study (IS) and self-learning activities (SL)				214	
3.8. Total hours per semester				250	
3.9. Number of credits				10	

4. Preconditions (where applicable)

4.1. curriculum	Not applicable
4.2. competencies	Not applicable

5. Conditions (where applicable)

5.1. for the lecture	Logistic support: video projection, whiteboard/ flip chart
5.2. for the seminar/ laboratory	Logistic support: video projection, whiteboard/ flip chart

6. Specific learning outcomes of the subject

Knowledge
1. Define and explain the concept of ecological security and conceptually place it within general security.
2. Describe the relationship between globalization and ecological security, and the role of environmental policies in European security.
3. Identify and explain the geo-spatial vulnerabilities of environmental factors in situations of peace and conflict.
4. Explain the impact on ecological security of air, water, and soil quality and the connection to public health.
5. Describe specific threats: ecoterrorism/environmental terrorism/bioterrorism, conflict/post-conflict, pandemics, food security, climate change.
Skills
1. Analyze an ecological risk situation based on a case (data/reports), identifying the risk factors and the consequences for the environment and health.
2. Applies environmental security management measures in local/regional/national/cross-border contexts (including non-compliant situations).
3. Use legislative/policy elements (EU and Romania) to justify management solutions in environmental security.
4. Assesses chemical risks and proposes measures through tools such as water safety plans and approaches for critical infrastructure.
5. Compare and integrate case studies on: major pollution, mining/heavy metals, natural disasters, conflicts, and health effects.
Responsibility and autonomy
1. Works efficiently in multidisciplinary teams, contributing with analysis and argumentation in the assigned segment (group project / roles in discussions).
2. Independently select relevant bibliography and additionally document (platforms/library/field) to support the foundation of an analysis.
3. Professionally justify risk management recommendations, using specialized language and avoiding major misunderstandings in the interpretation of concepts.
4. Demonstrates professional responsibility regarding the role of the security manager in the organization and the relevance of skills for the labor market.

7. Contents

7.1 Course	Teaching- Learning Methods	Observations ¹
Lecture 1: Defining and Classifying the Term Ecological Security	Presentation, interactive methods	
Lecture 2: Globalization and ecological security.	Presentation, interactive methods	
Lecture 3: Environmental Policy and EU Security. The Concept of Ecological Security in Romania	Presentation, interactive methods	
Lecture 4: Air in the context of ecological security. Pollution caused by motor vehicles	Presentation, interactive methods	
Lecture 5: Water in the Context of Environmental Security	Presentation, interactive methods	
Lecture 6: Chemical Contaminants and Water Safety Plans	Presentation, interactive methods	
Lecture 7: Health Risks in Water Supply Systems in Rural Areas	Presentation, interactive methods	

¹ For example, organizational aspects, recommendations for students, specific aspects related to the course/seminar such as inviting practitioners in the field, etc.

Lecture 8: Soil in the Context of Environmental Security	Presentation, interactive methods	
Lecture 9: Consequences of Mining on Ecosafety	Presentation, interactive methods	
Lecture 10: Climate Change and Natural Disasters	Presentation, interactive methods	
Lecture 11: Environmental Terrorism and Eco-Terrorism. Bioterrorism	Presentation, interactive methods	
Lecture 12: The Effects of Wars on the Environment and Environmental Degradation as a Cause of Armed Conflicts	Presentation, interactive methods	

Bibliography

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- Dumitriu AI- „Realități și perspective ale mediului de securitate”, Ed. Universitară, București 2010
- Duțu M, Dreptul Internațional al Mediului, Ed.Economica, București, 2004
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- Gurzau A, Sfetcu L, Lupsa IR, Ivan A, Gurzau S - Drinking Water Security in Crisis Situations from a Medical Perspective, Threat to Global Water Security, NATO Science for Peace and Security Series-C: Environmental Security, Edited by J.A.A, Jones, T.G.Vardanian, C. Hakopian, Ed. Springer, 2009, 51-58, ISBN: 978-90-481-2336-0
- Held David, McGrew Anthony, Goldblatt David, Perraton Jonathan - "Transformări globale. Politică, economie și cultură", Ed. Polirom Iași 2004
- Kelemen D. (2010) Globalizing European Union environmental policy. Journal of European Public Policy Volume 17, Issue 3, Special Issue: Europe and the Management of Globalization, p 335-349
- Murray C J L, King G, Lopez A D, Tomijima N, Krug E G - Armed conflict as a public health problem BMJ 2002;324:346-9
- Pascu RV- Managementul deșeurilor – Sibiu : Editura Universității "Lucian Blaga" din Sibiu, 2009 , ISBN 978-973-739-717-1
- Pirages D and Cousins K, From resource scarcity to ecological security: exploring new limits to growth, by, The MIT Press, 2005, ISBN-10: 0-262-66189-6
- United Nations, „The Universal Declaration of Human Rights”. Disponibil la: <http://www.un.org/en/documents/udhr/index.shtml>. [11 Noiembrie 2011].
- EC - Mining waste and best available techniques <http://ec.europa.eu/environment/waste/mining/index.htm>
- WHO - A review of the Strategy on Water Scarcity and Droughts http://www.who.int/water_sanitation_health/en/
- WHO - Water safety plans: http://www.who.int/water_sanitation_health/dwq/wsp0506/en/
- WHO - Environmental Health in emergencies and disasters http://www.who.int/environmental_health_emergencies/en/
- EEA - Disasters in Europe <http://www.eea.europa.eu/highlights/natural-hazards-and-technological-accidents>
<https://www.publichealth.va.gov/exposures/gulfwar/sources/chem-bio-weapons.asp>
- EC - EU energy, transport and GHG emissions trends to 2050, http://ec.europa.eu/energy/observatory/trends_2030/doc/trends_to_2050_update_2013.pdf
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- US Department of Veterans Affairs – Public Health – Agent Orange <https://www.publichealth.va.gov/exposures/gulfwar/sources/chem-bio-weapons.asp>

7.2 Seminar / laboratory	Teaching- Learning Methods	Observations
1. Safety, security, health and public health - interactions	Interactive Methods. Case Study	
2. The geo-spatial vulnerability of environmental factors	Interactive Methods. Case Study	
3. The report on environmental quality as a basis for evaluating ecological security	Interactive Methods. Case Study	

4. Ecological security in the context of the national security strategy	Group project presentation	
5. Air quality in Europe. European legislation in the field	Interactive Methods. Case Study	
6. Water quality in Europe. European legislation in the field. Assessment of chemical risks as a step in water safety plans	Interactive Methods. Case Study	
7. The Reflection of European Environmental Policies in Romanian Legislation	Group project presentation	
8. Soil - major pollution accidents. Abandonment of mining - long-term consequences	Group project presentation	
9. Natural disasters in Romania	Interactive Methods. Case Study	
10. Depopulation and ecological security	Group project presentation	
11. Bioterrorism in the 20th-21st centuries	Group project presentation	
14. The magnitude of health consequences in post-conflict situations	Interactive Methods. Case Study	
Bibliography		
<p>1. Gurzau AE – Mngementul securitatii ecologice - suport curs, actualizat</p> <p>2. Gurzău AE, Gurzău ES, Bardac D, Surdu S, Cordoș E, Iacob I, Draguescu I, Neamțu I, Pop C, Silberg R, Gheorghiu E, Brezai C, Emandi M, Sfetcu O. Mediul și sănătatea la sfârșit de secol XX început de secol XXI. Editura Mira Design. Sibiu. 2002.</p> <p>3. For each seminar, 1-2 specialized articles on the proposed topic will be distributed a week in advance.</p>		



8. Evaluation

Type of activity	8.1 Evaluation Criteria ²	8.2 Evaluation methods ³	8.3 Weight of the final grade
8.4 Course	Correct understanding of theoretical concepts. The way to recognize and interpret specific threats to ecological security. Interactive participation in classes	Written exam	40%
8.5 Seminar/laboratory	Identifying, characterizing, and correctly managing a risk situation based on a given case. The quality and volume of specialized language. Interactive participation in seminars.	Discussions, debates, group projects	50%
	Default point		10%
8.6 Minimum passing standard			
<p>Understanding theoretical elements and correlating them with real situations or simulations</p> <p>Developing the ability to independently select additional synthetic bibliography</p> <p>Participating in a group project, presenting and justifying the assigned segment</p> <p>Handling the exam topic without significant confusion or errors.</p>			

² The evaluation criteria must directly reflect the learning outcomes targeted at the program level, as well as at the course level. More specifically, the learning achievements mentioned in the anticipated learning outcomes are assessed.

³ It is recommended to establish both the methods of final evaluation and the ongoing assessment strategy.

9. SGD Labels (Sustainable Development Goals)⁴

	<input type="radio"/>	The general label for Sustainable Development						
				<input type="radio"/>				
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
								No label applies
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Date of completion:
10.10.2025.

Signature of the course lecturer
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Signature of the seminar tutor
.....

Date of notification in the department:
20.10.2025

Department director's signature
.....

⁴ Select a single label, the one that, according to the ODD Label Application Procedure in the academic process, best fits the discipline. If the discipline addresses the topic of sustainable development in a general manner (e.g., by presenting/introducing the general framework of sustainable development, etc.), then the general Sustainable Development label can be assigned. If none of the labels describe the discipline, select the last option: "No label applies".