Syllabus

Course Title

Climate Change: Communication and Public Engagement

General Information

General description of the required education/training, outlining the main objectives and explaining the necessity of the education/training at the organizational/country/regional level

The course **"Climate Change: Communication and Public Engagement"** is part of the professional cycle of disciplines in the Master's programme "Climate Change Mitigation and Adaptation."
The main objective of the course is to develop students' skills in modern communication studies related to climate change issues, to increase public climate awareness, and to promote education on the assessment of climate impacts and climate action.
Climate change communication is a relatively new field. The issue has increasingly been highlighted within the context of public understanding of climate change and the perception of climate risks. Climate scientists are strongly encouraged to communicate this issue in a way that non-scientific audiences can understand, making it more relevant to their lives and experiences.
Citizens are increasingly encouraged to participate in climate policy-making. Citizens' assemblies are one of the effective ways to strengthen public support for national climate policies. For participants to accept ambitious climate measures, it is not the information about climate change itself that matters most, but the way it is communicated. Speakers who communicate effectively tend to achieve greater acceptance of their policy proposals.
Public engagement is inherently valued as a means of democratic expression, regardless of its effectiveness in solving climate change. From an instrumental perspective, it is considered valuable because it contributes elements such as knowledge, resources, trust, and accountability to collective climate decision-making. It is also considered important from a substantive perspective, as it helps address climate change by contributing creatively to collective problem-solving.
Research in climate communication should focus on identifying the most effective communication tools to bridge the gap between climate science and public engagement.

Audience

The main target audience of the course and any secondary audience, if it may influence decisions regarding the structure or content of the course

Expected level of knowledge and skills of the main audience (current or minimally required), as well as other factors (for example, cultural characteristics, level of technical training, access to the Internet) that should be considered when planning the course, as they may affect the choice of teaching methods, materials, and approaches to interaction with the audience

The primary target audience consists of Master's students of higher education institutions in Ukraine who are studying in the field of climate services.
The course may also be used for educational and outreach purposes to engage a wider audience without a background in the natural sciences.

Level of knowledge and skills of the primary audience
Current level of knowledge:

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The audience should have basic knowledge in the natural sciences, in particular atmospheric physics, climatology, and ecology. They should also have minimal knowledge of sociology, political science, and psychology.

Cultural aspects:

Education on climate change should be aimed at developing a climate culture across all segments of the population, with attention to the importance of socio-cultural dynamics in different regions for the development of effective, culturally appropriate strategies and policies for addressing climate risks.

Technical preparation level:

Participants should have computer literacy skills, be able to use the Internet, and work with various interactive platforms.

English language proficiency:

An intermediate level of English (B1 or higher) is recommended for working with scientific literature and global databases.

Information accessibility:

The course delivery is designed to ensure that all individuals, regardless of functional or communication limitations, have access to information in multiple formats and through technologies adapted to their needs and abilities.

Internet access:

The course provides diverse formats of content delivery for both online and offline use.

Competencies

Training needs at the individual or organization/country/regional level, as well as a description of how these needs were identified and recognized as relevant.

Competencies targeted by the training.

Orientation in legal, ethical, and communication challenges in global climate governance.

C4. Apply acquired knowledge to navigate legal, communication, and ethical challenges, contributing to effective global climate governance.

Learning outcomes and performance criteria

Learning outcomes and performance criteria formulated with regard to the knowledge and skills to be acquired during the training process.

Performance criteria:

Use effective communication strategies (for example, visual tools, storytelling, and interactive engagement) to improve audience understanding and engagement.

Learning outcomes:

LO1

Understand the main theories and principles of effective communication, in particular how they can be applied to convey complex climate change concepts to different audiences, including policymakers, industry representatives, and the general public.

LO2

Apply targeted communication strategies to effectively engage with climate services experts and key climate-dependent economic sectors in order to promote collaboration and achieve mutually beneficial outcomes, while actively involving the wider public in climate initiatives and raising community awareness.
LO3
Develop and implement strategies that promote collaboration and achieve mutually beneficial outcomes in climate initiatives.

Course Content

Provide a content outline that corresponds to the learning objectives and outcomes. This may be a course outline as it will be presented to students, but not necessarily a complete curriculum.

Include a general list of all topics that you consider necessary to cover. If you believe it would help clarify the scope, indicate what will NOT be covered.

Module 1: Understanding the main theories and principles of effective communication in climate services

1. Evolution of international public opinion regarding global climate change.
2. Theories and principles of effective communication in the field of climate services.

Module 2: Climate change communication with different audiences

1. Communication strategies in climate services for different types of users.
2. Interpretive communities and societal responses to climate change.
3. The impact of war on the interaction between the climate civil movement and public authorities in Ukraine.

Module 3: Strategies for engagement and collaboration in climate initiatives

1. Public engagement: terminology.
2. Strategies for achieving mutually beneficial outcomes in climate initiatives.

Learning Solutions and Methods of Implementation

List the learning solutions (teaching methods) that will be used and explain why they were chosen. For example: classroom learning, online learning, blended learning, workplace learning, online resources for self-study, coaching or mentoring, etc.

Learning solutions:
Formal learning is foreseen, aiming for learners to achieve predefined learning outcomes and acquire specific skills and competencies. It takes into account the basic level of skill proficiency and allows learners to choose their learning pace in a distance learning format.
Teaching methods:
For this course, distance learning (asynchronous mode) is proposed, using online technologies.
Distance learning makes the educational process more flexible and accessible, which is especially important in the current security situation in Ukraine. This format enables students to study in a convenient place and at a convenient time.
Elements of online learning include direct interaction between the instructor and course participants, or among participants themselves during sessions. Consultations and seminars may be conducted in real-time (synchronous) format. Online tools also make it possible to reach a significantly wider audience, which is directly related to the specific nature of the course aimed at advocacy and public education in the field of climate literacy among the population.

The use of modern technologies, such as automated assessment systems and feedback tools, as well as broad access to literature databases, helps improve the quality of the learning process.

Learning Strategies

Consider which learning strategies you will use. Provide justification for why you intend to apply them, including reasons why they will help participants achieve the planned learning outcomes.

Combine different learning strategies to create a diverse learning environment that accommodates different learning styles of participants. This will increase the effectiveness of learning and help achieve the planned learning outcomes. This section does not require a detailed description of specific activities.

Traditional lecture-based teaching method.

Discussion strategy focused on the exchange of opinions and proposals among course participants. It is conducted in an online format. Asynchronous voice discussions are proposed, allowing for extended reflection on problematic questions or situations.

Elaboration strategies – aimed at establishing connections between what the learner already knows and what they are trying to learn. Integrating new knowledge with existing knowledge into a coherent whole supports faster recall and better understanding of the material.

Project-based learning – used for practical assignments.

Motivation strategy – involves fostering reflection on current achievements and encouraging motivation for future development and perspectives.

Learning Activities

Describe the main learning activities that will be included, such as lectures, readings, case studies, discussions, exercises, practical assignments, simulations, role-playing games, etc.
Also describe the roles of instructors and students during these activities.

The course consists of lectures and practical classes – contact hours account for 40% of the total course workload, while independent student work accounts for 60% of the total hours.
The course includes 3 modules. Each module provides 12 academic hours, while independent work accounts for 18 hours per module.
Main learning activities:

1. *Lectures.* The course includes 3 lectures, each covering several related topics.
   - Module 1 introduces the main concepts of the course and presents the problem statement.
   - Module 2 describes community demands and work with different audiences regarding climate risks.
   - Module 3 defines the concept of strategies for public engagement in climate change issues.

The role of the instructor is to transfer knowledge and develop competencies, present current and relevant climate change issues in an engaging way, stimulate students' creative and self-learning activities, and motivate learners by helping them understand the importance of their role and real contribution to addressing climate change, both individually and through educational outreach to the wider public.

2. *Practical assignments (project work).* Practical work allows students to apply acquired knowledge in real-world conditions, which supports deeper understanding of the material. In addition, practical sessions develop skills that are difficult to acquire through lectures or reading alone. The task involves developing a communication project on climate change issues for different audiences.

The role of the instructor is to clearly define the objectives, the set of tools and methods to be used in project development, and the target audiences.
Practical Assignment 1: Critical selection of visual content
Content: Creation of a poster based on the critical selection of visual content (Climate Visuals principles).
Objective: To learn how to present climate-related content in a way that encourages action rather than inducing feelings of helplessness or panic.

Practical Assignment 2: Communicating climate uncertainty through analogies
Content: Presentation of climate data in an adapted form.
Objective: To learn how to explain complex probabilistic data (e.g., seasonal forecasts) in accessible language without losing scientific accuracy.
Practical Assignment 3: Development of a communication strategy for a local adaptation initiative
Content: Development of a communication strategy for a local adaptation initiative.
Objective: To learn how to apply principles of effective climate communication to engage local communities.

3. *Independent student work.* This involves systematic work on mastering the course material throughout the entire learning period. It is aimed at developing students' abilities, enhancing activity, continuous knowledge acquisition, self-assessment, and self-organization.

Assessment of Learning

Describe the assessment plan for participants before, during, and/or after the course, including tests, exercises, activities, and projects that will be assessed. Indicate whether self-assessment or peer assessment will be used.

Explain how the assessment is linked to the learning outcomes.

For assessment of students' knowledge, a modular form of control is used. The course consists of 3 modules.
1. *Testing.* The purpose is to consolidate the knowledge acquired during the course, ensure maximum objectivity of assessment, and reduce the time required for processing results. The role of the instructor is to organize the monitoring process of students' performance. Tests are conducted in a distance format using the e-learning platform. Theoretical tests consist of 20 questions.
The assessment system is as follows:

- Answers are complete and correct – 90–100%;
- Answers are correct but not complete – 75–89%;
- Answers are not always correct and complete – 60–74%;
- Answers are incorrect or missing – 0–59%.

The maximum score for each test is 20 points.
2. Practical assignment (project design)
The maximum score for tasks 1 and 2 is 15 points each, and for task 3 – 10 points.
The assessment scale is the same:

1. 90–100% – complete and correct answers;
2. 75–89% – correct but incomplete answers;
3. 60–74% – partially correct and incomplete answers;
4. 0–59% – incorrect or no answers.

The course grade is calculated as the arithmetic sum of points earned for all course assignments (cumulative total score).

Storyboard of Learning (Learning Storyboard)

Use this to create a visual scenario of your blended learning activity

Acquisition (learning).

Through reading literature and scientific articles on the course topic, attending lectures, and reviewing presentations and videos. As a result, students acquire new concepts, terminology, and the methodology of the course subject. The acquisition process should be reflective, as learners integrate new knowledge with their existing understanding.

Discussion.

Learning resources and tools

List the available resources that will be used for different types of learning activities and recommended to students.

Describe the technologies that will be used to implement learning solutions, including educational technologies and operational equipment (hardware, software, collaboration tools).

Learning resources

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ChangeConversations. *Int. J. Environ. Res.Public Health,* 21 (3), 279. https://doi.org/10.3390/ijerph21030279
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16. https://climateoutreach.org/what-is-public-engagement/
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Technical tools / software for implementing learning solutions: Moodle, MS Office.