Syllabus

Course Title

Communication skills development in the climate service sector
BCSCS

General Information

General description of the required training/preparation, outlining the main objectives and providing an explanation of the need for training/preparation at the organizational/country/regional level.

The course 'Communication skills development in the climate service sector' is part of the professional cycle of disciplines for postgraduate training.
The main objective of the course is to develop in trainees the skills of communication strategies in the field of climate services for various consumers.
The development of communication skills in the field of climate services is critically important for transforming complex scientific data into usable information that supports decision-making in various sectors of the economy. The main challenge of our time is the 'communication gap' between the scientific community, which generates knowledge, and end users. Climate information must not only be accessible but also 'actionable.' This requires specialists in the field of climate services to develop specific communication competencies: from the ability to visualize complex risks to the capacity to build trust with different stakeholder groups. Effective communication not only informs but also mobilizes communities to take action on adaptation and mitigation of climate change impacts.

Audience

Primary 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 primary audience (current or minimum required), as well as other factors (for example, cultural characteristics, level of technical proficiency, access to the internet) that should be taken into account 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 is postgraduate students of higher education institutions in Ukraine who are studying in the field of climate services.
The course may also be used for educational outreach purposes to engage a broad audience without a background in the natural sciences.

Level of knowledge and skills of the primary audience:

Current level of knowledge:

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

Cultural characteristics: education on climate change should be aimed at forming a climate culture among all segments of the population, emphasizing the importance of considering sociocultural dynamics in different regions for the development of effective, culturally appropriate strategies and policies for addressing climate change risks.

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Level of technical proficiency:

Course participants should have skills in using a computer, the Internet, and various interactive platforms.

Level of English language proficiency:

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

Information accessibility:

The delivery and presentation of course materials are designed to ensure that people, regardless of their functional impairments or communication abilities, have access to information in different formats and using technologies that take their needs and capabilities into account.

Access to the internet:

The course provides a diverse presentation of materials for use in both online and offline modes.

Competencies

Training needs at the individual level or at the organizational/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.

C2. Creation, development, and improvement of concepts and strategies for climate change mitigation and adaptation, independently or in cooperation with representatives of climate-sensitive economic sectors, public authorities, private enterprises, etc., in order to achieve sustainable development goals.

Learning outcomes and performance criteria

Learning outcomes and performance criteria formulated with consideration of the knowledge and skills to be acquired during the learning process.

Performance criteria:
Establish effective communication channels with users of climate services and develop the capacity for interaction, for example through Regional Climate Outlook Forums, etc.
Learning outcomes:
LO10. Use appropriate communication channels, including social media management and interaction with media agents. BCSCS
LO11. Formulate climate information in a language that is scientifically sound and adapted to the needs of target users, integrating data on uncertainty and risk in the process of information transfer. BCSCS

Course content

Provide a content outline that corresponds to the objectives and learning outcomes. This may be the course plan as it will be presented to students, but it does not necessarily have to be a full syllabus.

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

Module 1. Effective communication strategies for climate services
Topic 1 – Channels, means, and methods of communication
Topic 2 – Communication strategies

Module 2. Adapting climate information to the needs of different stakeholders
Topic 3 – Presentation of climate information
Topic 4 – Visualization of climate data

Learning solutions and methods of implementation

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

Learning solutions:
Formal learning. It is expected that course participants will achieve predefined learning outcomes and acquire specific skills and competencies.

It takes into account the basic level of skills and allows learners to choose their learning pace in a distance learning format.

Teaching methods:
For this course, distance learning (asynchronous mode) is proposed, in which online technologies may be used.

Distance learning makes the learning process more flexible and accessible, which is especially important in the current security situation in Ukraine. This format provides the opportunity to study in a convenient place and at a convenient time.

Online learning elements include direct interaction between the instructor and course participants, or among participants during sessions—consultations, seminars, etc., which can be conducted in a live format. Online tools also allow for reaching a significantly larger audience, which is directly related to the course's purpose of 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 mechanisms, 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.

1. Traditional lecture-based teaching method.
2. Discussion strategy focused on the exchange of ideas (proposals) among course participants. Conducted online. Asynchronous voice discussions are proposed, allowing extended reflection on problematic questions or situations.
3. Elaboration strategies – to establish a connection between what the learner already knows and what they are trying to learn. Integrating new knowledge with existing knowledge into an organized whole promotes faster recall of information and improves understanding of the material.
4. Project-based learning. For practical assignments.
5. Motivation strategy. Development of reflection on current achievements and encouragement of future perspectives, etc.

Learning activities

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

The course consists of lectures and practical sessions – contact hours account for 40% of the total course workload, and independent student work accounts for 60% of the total workload.

The course includes 2 modules; each module provides 12 academic hours, and independent work accounts for 18 hours.
Main learning activities:

1. *Lectures.* The course consists of 4 lectures.
   - Module 1. Lectures 1–2 define the concept of communication skills.
   - Module 2. Lectures 3–4 present methods of climate data communication adapted for different users.

The role of the lecturer is to transmit knowledge and develop competencies.
To present current issues related to climate change in an engaging way.
To stimulate creative and self-directed learning activities among participants.
To motivate learners by helping them understand the importance of their role and real contribution to addressing climate change, both individually and through outreach work to the broader public

2. *Practical assignment. Project-based work.* Practical activities allow course participants to apply acquired knowledge in real conditions, which contributes to deeper understanding of the material. In addition, practical sessions develop skills that are difficult to acquire through lectures or reading alone. Tasks involve the development of projects for different users of climate services. The role of the lecturer is to clearly define the objectives, tools, and methods for project development and audience proposals.

   Practical task 1. Co-production of climate narratives.
   Objective: To master the co-production method for creating "climate stories" that encourage action.

   Practical task 2. Ethics and co-production of climate services.
   Objective: To learn stakeholder engagement methods for creating products that are trustworthy and practically useful.
3. *Independent work of course participants.* This involves systematic independent study of course material throughout the entire learning process. It is aimed at developing abilities, activating learning activity, continuous knowledge acquisition, self-assessment, and self-organization.

Learning assessment

Describe the plan for assessing participants before, during and/or after the course, including tests, exercises, activities, and projects that will be evaluated.

Indicate whether self-assessment or peer assessment will be used. Explain how the assessment is linked to the learning outcomes.

For monitoring participants' knowledge in the course, a modular assessment system is used. The course consists of 2 modules.

1. *Testing*. The purpose is to consolidate the knowledge acquired by participants during the course, ensure maximum objectivity of assessment, and reduce the time required for processing results. The role of the lecturer is to organize the process of monitoring participants' performance. Tests are conducted in a distance format using the e-learning website. Theoretical tests consist of 20 questions. Assessment system: 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%. Maximum score for each test is 20 points.
2. *Practical assignment. Project design.* Maximum score for each assignment is 30 points. 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 course grade consists of the arithmetic sum of points from all course tasks (cumulative total score).

Storyboard of learning (instructional storyboard)

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

Acquisition (gaining).

Through reading literature and scientific articles on the course topic, listening to lectures, and viewing presentations and videos. As a result, participants acquire new concepts, terminology, and methodology of the course subject. Acquisition should be reflective, as participants align the acquired knowledge with their existing knowledge.

Discussion.

Learning resources and tools

List the available resources that you will use for different types of learning activities and recommend to students.

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

Learning resources

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9. Kris De Meyer et al. (2021). Transforming the stories we tell about climate change: From 'issue' to 'action'. *Environ. Res. Lett.* http://dx.doi.org/10.1088/1748-9326/abcd5a
10. Kumpu, V. (2022). What is Public Engagement and How Does it Help to Address Climate Change? A Review of Climate Communication Research. *Environmental Communication*. Vol. 16 (3). P. 304-316. https://doi.org/10.1080/17524032.2022.2055601
11. Latkin, C. A., Dayton, L., Winiker, A., Countess, K., & Hendrickson, Z. M. (2024). 'They Talk about the Weather, but No One Does Anything about It': A Mixed-Methods Study of Everyday Climate Change Conversations. International Journal of Environmental Research and Public Health, 21(3), 279. https://doi.org/10.3390/ijerph21030279
12. Markowitz, E., Guckian, M. (2018). Climate change communication: Challenges, insights, and opportunities. *Psychology and climate change*. https://doi.org/10.1016/B978-0-12-813130-5.00003-5
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18. https://climateoutreach.org/what-is-public-engagement/
19. https://ecoaction.org.ua/
20. https://greentransform.org.ua/zmina-klimatu-ta-meshkantsi-ukrayiny-osoblyvosti-gromadskoyi-dumky-ta-komunikatsiyi/

Technical tools / software for implementing learning solutions: Moodle, MS Office.