Certificate on Climate Action (Micro-Credential)

v1.3

1. **Title of the micro-credential**

   ENHANCE Certificate on Climate Action

2. **Awarding Body**

   Warsaw University of Technology, Poland, on behalf of ENHANCE

3. Country/region of the issuer

   Poland/EU

4. **Date of issuing**

   The achievement can be recognized (acknowledged) after the student fulfills all the requirements. The credential has no strict time frame, and students may request acknowledgment at any time. The date of issuing depends on the moment of achievement recognition.

5. **ECTS points assigned**

   13 credit points

6. **EQF level**

   EQF level 6

7. **Short description of the credential**

   The certificate aims to familiarize students with the scientific fundamentals of climate change and its assessment, mitigation, and adaptation methods so that the students can take into account climate aspects in their professional work, regardless of their field. The certificate consists of four modules. Students gather knowledge and skills on the scientific basis of climate change in the first module. The second module includes methods and tools for the evaluation of climate change. The third module deals with mitigation and adaptation strategies. Students participate in multidisciplinary, international project-based workshops on climate action in the fourth module. Workshops, initially in the form of Summer School, bring together students within the ENHANCE Alliance with a particular interest in climate change, thus promoting an exchange of ideas beyond the classroom. Students choose courses within each of the modules offered by ENHANCE universities, which differ in the form of classes (online, on-campus) and create a diverse platform for the self-development shaped by participants.

8. Anticipated earners of the certificate

The certificate is primarily designed for students on both bachelor's and master's levels at all ENHANCE universities, particularly interested in climate change. The program is dedicated to students who would like to incorporate a focus on climate change in their professional or voluntary engagement.

9. Learning Outcomes

Learning outcomes are defined for each module and presented in Table 1.

Table 1. Learnings outcomes.

MODULE	LEARNING OUTCOMES		
	KNOWLEDGE	SKILLS	RESPONSIBILITY AND AUTONOMY
Scientific basis for climate change	Students will be able to demonstrate their understanding and apply knowledge of: • Climate Change phenomena; • carbon and other biogeochemical cycles; • human causes of Climate Change; • impacts of Climate Change on human well-being and the natural world;	Students will be able to: • investigate complex Climate Change issues; • explain Climate Change causes and effects; • analyze the relationship between Climate Change, human activity, and greenhouse gas emissions;	Students will be able to engage in lifelong learning and follow developments in science in the field of Climate Change autonomously.
Methodologies and tools to evaluate climate change	Students will be able to demonstrate their understanding and apply knowledge of: • selected tools and methodologies used for the analysis and assessment of Climate Change; • analytic methods and frameworks used to identify response to Climate Change; • data and statistics on climate change.	Students will be able to: • use advanced tools and methodologies to analyze Climate Change; • interpret and use a variety of data to solve complex problems of Climate Change phenomenon.	Students will be able to demonstrate awareness of the legal, ethical, and intellectual property conditions regarding the use of data and tools.

Actions for climate change - adaptation and mitigation strategies	Students will be able to demonstrate their understanding and apply knowledge of: • selected techniques, strategies, and instruments to reduce the emission of greenhouse gases; • selected techniques, strategies, and instruments of adaptation to Climate Change; • dependence between vulnerability to Climate Change and adaptation response;	Students will be able to: • evaluate and choose the right techniques, strategies and instruments for climate change adaptation and mitigation, • critically assess and develop complex reports on climate change, adaptation and mitigation; • design advanced solutions in response to vulnerability to climate change, at local and global levels.	Students will be able to acquire new competencies and cooperate with representatives of other professions, also in a group, in order to solve the challenges related to climate change.
Climate Action Planning (Summer school)	Students will be able to demonstrate their understanding and apply knowledge of: • selected techniques, strategies, and instruments to limit the causes and effects of climate change in the local environment, • the social dimension of Climate Change.	Students will be able to: • evaluate and choose the proper techniques, strategies, and instruments for limiting the causes and effects of climate change in the local environment, • apply an interdisciplinary approach to limiting the causes and effects of climate change in the local environment.	Students will be able to acquire new competencies and cooperate with representatives of other professions, also in an international group, in order to solve the actual challenges related to climate change.

10. Structure

The certificate consists of four modules:

Module 1. Scientific basis for climate change.

The module provides fundamentals of climate processes, their physical backgrounds, and relationships between human activities and well-being and climate change. It is recommended to accomplish this module before completing courses within the other two modules (can be done in parallel, depending on the requirements of specific courses).

Module 2. Methodologies and tools to evaluate Climate Change.

The module equips students with skills and knowledge for analysis, processes, and assessment of data related to Climate Change. Exemplary topics include LCA (Life Cycle Assessment), LCC (Life Cycle Costing), carbon footprint, ecological footprint, GIS, and Corporate Social Responsibility (CSR), but are not limited to these.

Module 3. Actions for climate change – adaptation and mitigation strategies.

The module encompasses selected techniques, strategies, and tools for climate change actions, covering adaptation and mitigation strategies.

Module 4. Climate Action Planning (Summer school).

The module enables the practical application of the knowledge and skills from modules 1-3 in the case study analysis. It focuses on selected techniques, strategies, and instruments to limit the causes and effects of climate change in the local environment.

The ENHANCE Summer School on Climate Action is offered within the module. It is the culmination of previously completed courses in the form of workshops. It gathers students from ENHANCE universities who pursue the certificate and enables the exchange of experience, knowledge, and skills while tackling real problems. Students in interdisciplinary teams work on climate action.

In the future, other courses may be added to the "Climate Action Planning" module if they provide a platform for common, multidisciplinary, international project-based workshops on climate action.

The curriculum of the certificate is a composition of courses offered by ENHANCE universities within the framework of the certificate. Offered courses are expected to be drawn from existing courses at ENHANCE universities. A wide range of courses is assigned to each module, and a student selects courses within each module. It is required that the student accomplishes one or more courses within each module, so the total ECTS given by accomplished courses is not lower than the required level defined for each module.

A student applies and accomplishes courses according to regulations and rules defined for each course and implemented at each university.

Table 2. Requirements defined per module.

#	Module	Requirements (min. ECTS)
1	Scientific basis for climate change	3
2	Methodologies and tools to evaluate Climate Change	3
3	Climate change adaptation and mitigations strategies	3
4	Climate Action Planning (Summer school)	4

Each course is hosted by one of the ENHANCE universities and can be conducted on-campus or online, according to its curriculum. To ensure a genuinely European context of the certificate, each student must accomplish courses hosted by at least two ENHANCE universities.

Requirements summary:

- Student accomplished courses recognized in each module and obtained a minimal amount of ECTS from that courses
- Student received at least 13 ECTS in total from all courses recognized by the certificate
- Accomplished courses must be hosted by at least two ENHANCE universities

It is recommended but not required that the modules are accomplished sequentially, according to their numbering. Modules 1 to 3 can be accomplished in parallel as well. It is strongly recommended to accomplish the "Climate Action Planning" module as the final course within the certificate.

The set of courses offered in each module is subject to change, with each course assigned to a module must meet specific learning outcomes. The Awarding Body should update the list of courses upon requests of ENHANCE universities.

In individual cases, a course not included in the list of courses assigned to the modules may be recognized by the Awarding Body after the achievement of the required learning outcomes has been determined.

11. Form of participation in the learning activity

The certificate as a whole credential is realized in blended form. The form of participation is defined for each course separately. The offer is structured in a way that enables to meet the requirements by completing a mix of courses on-campus and online.

12. Prerequisites

There are no prerequisites defined for the certificate. However, each course may have prerequisites defined. A student should refer to course prerequisites.

13. **Types of assessment**

The individual workload and assessment criteria differ in accordance with the specific courses offered in the framework of the certificate. These include, among others, written or oral examinations, portfolio assessments, and presentations.
Summer school on climate action includes the following types of assessments:

- group and public presentations and discussions
- assessment of engagement and taking responsibility for the project
- assessment of engagement and taking responsibility for the project individual project tasks

14. Supervision and identity verification

Supervised online or on-campus courses with identity verification (each course offered within the framework must ensure this).

15. Quality assurance

The principles and procedures for quality assurance are adopted at each ENHANCE university.

For the summer school on climate action, these can be specified as principles and procedures for quality assurance applied at the Warsaw University of Technology (*WUT Education Quality Manual*), compliant with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG 2015) and the Polish/European Qualifications Framework.

16. Integration/stackability options

The certificate on Climate Action is a unit of learning related to the subject of climate change that the student's home university can recognize as partial fulfillment of requirements for a bachelor, master, or doctoral degree.

17. Grade achieved

Participants receive a certificate with the final grade in line with the Polish grading scheme

5.0	ECTS grade A (excellent)
4.5	ECTS grade B (good)
4.0	ECTS grade C (good/satisfactory)
3.5	ECTS grade D (satisfactory)
3.0	ECTS grade E (sufficient)
<2.0	ECTS grade F (failed)

The final grade is calculated as a weighted average from grades achieved from courses counted into the certificate achievement.

Some grade conversion tools available to all European universities, such as EGRACONS, can be applied if the grade is to be interpreted in the context of a degree program offered at some other university.