

Climate University

*- brave forerunner in educating
active sustainability makers for
the society and business -*



Climate University mission 2023-2027:

We educate the competencies the society needs to tackle the challenges of climate change and the sustainability crisis.

Our values:

- Re-think and respect for planet and people
 - Science-based trustworthiness
 - Openness and sharing
- Interdisciplinary and cross-boundary collaboration
 - Bravery

Partners

Network of 29 higher education institutions in Finland

Cross-study agreements



Courses

2-5 ECTS each
50+ ECTS in total
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www.climateuniversity.fi



ETCS (European Credit Transfer and Accumulation System) education refers to the Europe-wide system standardizing university credits to make studies transparent and comparable, facilitating student mobility and degree recognition across countries



SUSTAINABLE.NOW



CLIMCOMMS.NOW



SYSTEMSCHANGE.NOW



CIRCULAR.NOW



CLIMATE.NOW



LUKIOLAISEN ILMASTO.NOW



STATISTICAL TOOLS



SOLUTIONS.NOW



LEADERSHIP FOR
SUSTAINABLE CHANGE



PLANETARYHEALTH.NOW



SUSTAINABLE CONSUMPTION



BIODIVERSITY.NOW



FORESTS AND CLIMATE



LIVING WITH CHANGING CLIMATE



Online learning materials

- Open for everyone
- Easy-to-use Up to date
- Linked between courses
- Engaging content
- Quality design



Multidisciplinary collaboration

- Collaborative projects
- Mixed backgrounds
- Multi-institutional
- Interaction



Impactful, climate & sustainability focused

- Science-based
- Solutions
- Action
- Real-world cases
- Future perspectives
- International



Solid pedagogy

- Written goals aligned
- Diverse methods
- Transparent evaluation
- Guides for teachers
- Flipped learning



Reflective

- Critical evaluation of current systems
- Hope, positive visions
- Reflecting values
- Dialogue



**CLIMATE
UNIVERSITY**

Course Principles

Climate change competence

A View of Professionals Advancing Climate Change Action

- Competence categories are compiled from expert **questionnaire (n=58) and interviews (n=24)**
- **Categories** are general in nature reflecting the backgrounds of the group of experts and the aim to be applicable across sectors

15/11/2024



SYSTEMIC climate change INSIGHT

Capability to recognize the causes of climate change and its impacts on natural, economic and societal systems, and the relevance of mitigation and adaptation measures in different contexts

VISIONS AND STRATEGIES in changing climate

Capability to advance the development and implementation of innovative strategies in response to climate scenarios and future visions

COURAGE AND DETERMINATION in climate action

Courage to act for climate and drive the change, and inner capacity to endure challenges and to deal with uncertainty

Collaborative CLIMATE LEADERSHIP

Capability to collaborate and to understand and appeal to others to act based on climate science, and to empower people to act according to their own motivations

Active ENGAGEMENT in networks

Capability to continuously engage with and learn climate science, and to find reliable information and practices through personal inquiry and peer-community collaboration

CLIMATE VALUES AND JUSTICE

Climate values and justice serve as universal goals and common denominators in climate professionals' actions and thus as foundations for their professional capabilities

Specialisation Programme in Climate Expertise

- 2-year programme, 60 ECTS
- Continuous education for those working as climate experts in public or private sector, or NGOs
- Offered by the University of Helsinki, in collaboration with Finnish Meteorological Institute, Climate Leadership Coalition and Climate University network
- Start in spring 2024



Specialisation Programme in Climate Expertise – content examples

KNOWLEDGE BASE

Climate change science & multidisciplinary basis

- Natural science basis
- Climate change effects, mitigation, adaptation
- Systems thinking
- Sustainability transition, biodiversity
- Psychology and communication of climate change

ACTIONS

Climate law, regulations & policies

- International climate policy: agreements, Science Based Targets, climate litigation
- EU climate policy: directives
- National climate policy and law

CONCRECY

Sector by sector

- Carbon footprint and LCA calculations
- Renewable energy basics
- Carbon neutral society
- Gamification for sustainability
- Economics of Climate Change in Forestry and Natural Resources

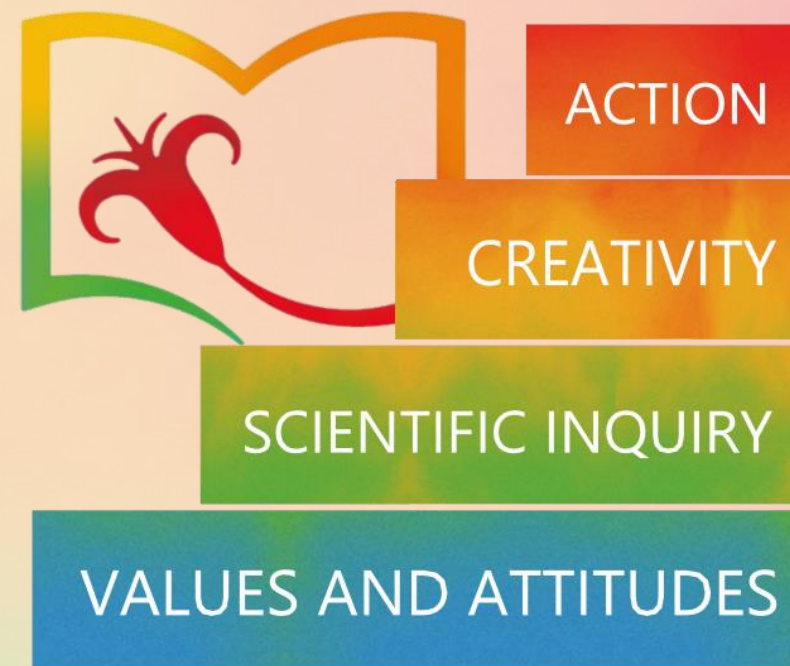
Degree programmes by INAR

- Masters Programme in Atmospheric Sciences
- Doctoral Programme in Atmospheric Sciences
- Masters Programme in Environmental Changes in Higher Latitudes
- Joint BSc, MSc and PhD programmes with Nanjing University
- Una Europa Joint Bachelor in Sustainability



Climate change teacher's academy

Erasmus+ Teachers Academies
project for 2022-2025
<https://climademy.eu/>





INSTITUTE FOR ATMOSPHERIC AND
EARTH SYSTEM RESEARCH

INAR education research - recent publications

See: <https://blogs.helsinki.fi/edu-team/publications/>

- Siponen, J., Salovaara, J. J., Särkelä, K., Ronkainen, I., Veijonaho, S., Vesterinen, V.-M., Barrio, I. C., Riuttanen, L., and Lauri, K. A. (2025). **Seeds of transformative learning and its pedagogical implications on a conference-based university course in environmental and geosciences**, *Geosci. Commun.*, 8, 357–370, 2025.
- Salovaara, J. J., Vesterinen, V. M., & Siponen, J. O. (2025). **Envisioning educational pathways for climate change competencies: Insights from a Delphi study**. *The Journal of Environmental Education*, 1–13.
- Salovaara, J. J., Kettunen, P., Veintie, T., Heikkinen, M., Ratvio, R., Södervik, I., & Pietikäinen, J. (2024). **The potential and actuality of sustainability agency of university faculty and staff**. *Sustainability: Science, Practice and Policy*, 21(1).
- Taurinen, J., Vilhunen, E., Vesterinen, V. M., Veijonaho, S., Äijälä, M., & Ruuskanen, T. (2024). **Exploring young people's perceived climate change competence**. *Environmental Education Research*, 1–15.
- Siponen, J., Salovaara, J. J., Santala, M., Tolppanen, S., Vesterinen, V.-M., Lavonen, J., Lauri, K. A. & Riuttanen, L. (2024). **Climate change competence—A view of professionals advancing climate change action**. *Environmental education research*, 1–23.
- Vilhunen, E., Vesterinen, V. M., Äijälä, M., Salovaara, J., Siponen, J., Lavonen, J., Salmela-Aro, K. & Riuttanen, L. (2024). **Promoting university students' situational engagement in online learning for climate education**. *The Internet and Higher Education*, 100987.
- Riuttanen, L., Siponen, J., Santala, M. & Salovaara, J. (2024). **Climate leadership competencies in public sector organisations in Pirkanmaa region, Finland**. *Estonian Journal of Education* 12(2), p. 29-51.
- Salovaara, J. J. and Hagolani-Albov, S. E. (2024). **Sustainability agency in unsustainable structures: rhetoric of a capable transformative individual**. *Discover Sustainability*, 5(1), p. 138.
- Taurinen, J., Vesterinen, V.-M., Veijonaho, S., Siponen, J., Riuttanen, L. & Ruuskanen, T. (2024). **Climate change competencies from perspective of Finnish youth**, *Journal of Youth Studies*, pp. 1–20.



ACCC
ATMOSPHERE AND CLIMATE
COMPETENCE CENTRE

- Flagship of four universities / research institutes in Finland
- Three Research Programs
- Impact Program implemented via 13 impact tasks
- <https://www.acccflagship.fi/>



surround
yourself with
people who
have different
skills than you

Lead a sustainable life

Greetings to students who want to make the sustainability transformation in the society real



Do it
progressively!
Don't need to
make drastic
changes! Baby
steps :)

Don't care about
other people's
opinions, trust
science and good
intentions

Don't be
afraid to be
the first one
to do
something

Your butterfly wings
matter, thanks to
you, we are heading
for the right
direction 🦋🌱

Just do it! Be the change!



Let's do it
together

Big things
start from
individuals

Insist on it

**Stronger
together!**

This course
has exceeded
my
expectations, I
recommend it
warmly!

**Step by
step. It's
change.**

be compassionate
when it comes
down to
sustainability!

One small change at a time
is always a movement in the
right direction!

Just start with
small steps - and
realize the
difference you
make

Learn to deal with
failures and how to
overcome them :)
Failure is not an end
of the world!

Be the change
you want to
see in the
world! :)



Find your own
sweetspot for
making the
biggest
impact!

**Don't be
afraid to
think big**

When forming
groups, go for
"change the
world"!

We do not
own the
Earth

Sustainability is not
an abstract concept.
It is our now and
future! So be
present, and learn
as much as you can,
to be better!



SUSTAINABLE.NOW

course students 2021
University of Helsinki

We do not inherit
the Earth from our
ancestors; we
borrow it from our
children

#ClimateUniversity



climateuniversity.fi

