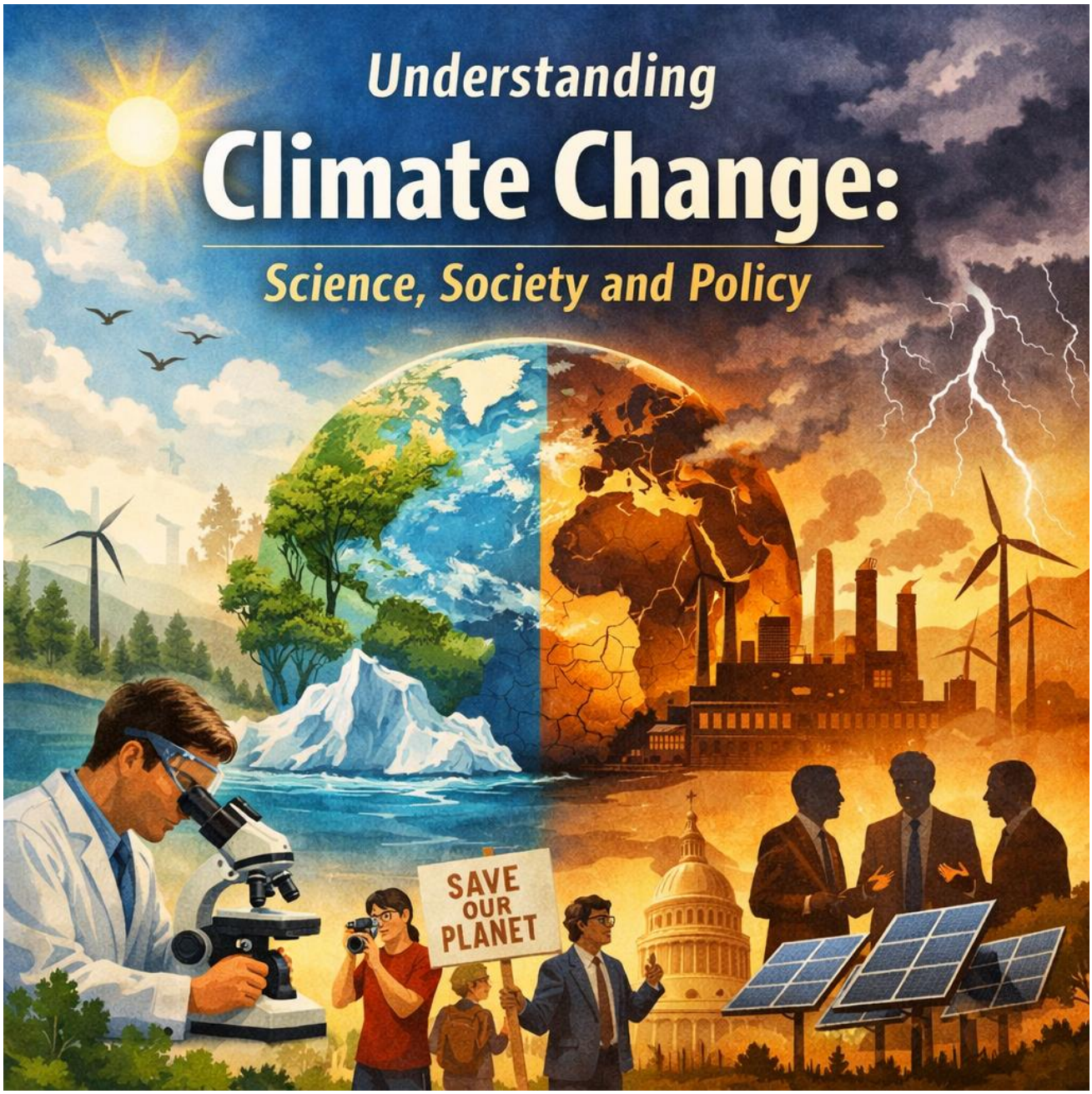

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SEA-EU Module description

Module offers for the SEA-EU 'Virtual Modules'

General Information

Module/Course Name	**Understanding climate change: science, society and policy**
Module/Course Code	tbs
Field of Education	Generic programmes and qualifications ☐ Education ☐ Arts and humanities ☐ Social sciences, journalism and information ☒ Business, administration and law ☐ Natural sciences, mathematics and statistics ☐ Information and Communication Technologies ☐ Engineering, manufacturing and construction ☐ Agriculture, forestry, fisheries and veterinary ☐ Health and welfare ☐ Services ☐
Study programme	Economy/International Economic Relations
Number of ECTS and total student workload	ECTS: 2; total student workload: 50 hours
Contact hours and Independent study hours	Contact hours – 25, independent study hours - 25
Typology of contact hours	Online lectures with active participation and discussion and exercise - interactive discussions during class, preparation and presentation of own projects. Lectures delivered by the lecturer using active learning methods (first two/three sessions). Subsequently, at each meeting, two students present their individual projects employing active learning methods, followed by discussion. The final sessions are again conducted as lectures delivered by the teacher.
Academic Year	2026

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Semester / Specific period	February 2026 – May 2026
Teaching Language	English
Delivery mode	Online
Responsible Lecturer	Name: Maria Matusiewicz E-Mail: maria.matusiewicz@ug.edu.pl
~~Other lecturers~~	NA
Learning outcomes	After completing this course, students should be able to - explain the main causes and consequences of contemporary climate change in relation to natural and human factors, - identify and analyse the social, economic and political dimensions of climate change at local, regional and global levels, - evaluate the role of science, policy, and public communication in shaping responses to climate change, - interpret data and case studies to illustrate the interconnections between environmental, technological and societal processes, - engage critically in discussions on climate ethics, justice and sustainability transitions, - propose evidence-based solutions and personal or institutional actions to mitigate or adapt to climate change impacts.
Course contents	I. **Science – physical foundations and limits (ca. 10 h)** 1. Climate system and earth's energy balance - Greenhouse effect and feedbacks - The role of co_2 and other greenhouse gases 2. Anthropogenic climate change: causes and evidence - Emissions since the industrial revolution - Empirical and observational data 3. Climate models, scenarios, and tipping points - Climate models (ipcc) - Emission scenarios and warming trajectories - Tipping points of the earth system II. **Society – impacts, inequality, economic systems (ca. 10 h)** 4. Social and environmental impacts of climate change - Impacts on health, food, and water - Climate migration - Regional and global differences 5. Climate change and global inequality - Historical responsibility - Climate justice - Global north vs. Global south

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	6. Capitalism, growth, and ecological limits - A critique of economic growth - The ecological crisis as a systemic crisis - The relationship between climate and capitalism 7. Doughnut economics and degrowth - Planetary boundaries and social foundations - Degrowth as a response to the climate crisis - Alternative models of prosperity - (doughnut economics; less is more) III. **Policy – governance, power, responses (approx. 10 h)** 8. Climate politics and power structures - States, corporations, and fuel interests - Lobbying and blocking the transformation - Political conflicts surrounding climate 9. Global climate governance - Limitations of global agreements - Geopolitics of climate 10. Climate policy instruments - Regulations, emissions markets, carbon taxes - The myth of the "technological fix" - Adaptation vs. Mitigation 11. Media, discourse, and public debate - The role of the media in shaping the debate - Climate disinformation - Analysis of press releases 12. Climate futures and policy choices - Transformation scenarios - Politics vs. systemic change - The limits of climate policy in the current order
Prerequisites and/or recommended academic background	No requirements
Assessment	Individual project presented during class (oral presentation), active participation and attendance.
Main bibliography	• Andrew E. Dessler, Edward A. Parson, *The Science and Politics of Global Climate Change: A Guide to the Debate*, Cambridge University Press, 2019. • The Guardian journal • K.Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*, Cornerstone 2017. • Jason Hickel, *Less Is More: How Degrowth Will Save the World,* Random House UK Ltd 2021. • Naomi Klein, *This Changes Everything: Capitalism vs. the Climate,* Penguin Books Ltd 2014.

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Organisational Information

Maximum number of SEA-EU participants
20
Learning Management System
MS Teams
Course schedule (date and time)
Online lectures & exercises on Wednesdays 15:30 - 17:00 h (CET/CEST), between 18th February and 29th April 2026.
Application deadline
2nd February 2026

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