

科目ナンバリング		U-LAS70 10002 SE50					
授業科目名 <英訳>	ILAS Seminar-E2 :Climate change impacts on the humansphere (気候変動が生存圏に与える影響) ILAS Seminar-E2 :Climate change impacts on the humansphere			担当者所属 職名・氏名	生存圏研究所 教授 Luce , Hubert		
群	少人数群	単位数	2単位	週コマ数	1コマ	授業形態	ゼミナール(対面授業科目)
開講年度・ 開講期	2026・後期	受講定員 (1回生定員)	10(5)人	配当学年	主として1回生	対象学生	全学向
曜時限	金5	教室	1共23		使用言語	英語	
キーワード	Climate change / environmental impacts / socio-economic impacts						
【授業の概要・目的】							
<p>This seminar provides an in-depth examination of the causes and consequences of contemporary climate change, emphasizing its links to human development models that rely heavily on non-renewable fossil fuels and raw materials. Students will explore how anthropogenic activities have altered the Earth system and examine the environmental, social, and economic repercussions of these changes. Through discussions and project-based learning, students will develop the ability to analyze and discuss climate change issues in English from an informed and critical perspective. Class activities will include individual or group projects focusing on specific aspects of climate change, as well as “ real-time ” discussions inspired by the annual United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP).</p>							
【到達目標】							
<p>By the end of the seminar, students will be able to:</p> <ul style="list-style-type: none"> - Explain the anthropogenic causes and physical mechanisms of current climate change. - Identify and analyze the major environmental and socio-economic impacts of climate change on the humansphere. - Evaluate the vulnerability of different regions and ecosystems to climate change. - Discuss mitigation, adaptation, and energy transition strategies from a global and ethical perspective. - Engage in informed discussions on international climate policies and negotiations. 							
【授業計画と内容】							
<p>Weeks 1-3: Introduction-The Anthropogenic Causes of Climate Change</p> <ul style="list-style-type: none"> - The increasing human impact on the environment - Fossil fuels: drivers of progress and sources of crisis - Industrialization, globalization, and unsustainable resource use <p>Weeks 4-5: Physical Mechanisms of Climate Change</p> <ul style="list-style-type: none"> - The greenhouse effect and radiative balance - The carbon cycle and feedback processes - Role of aerosols, land-use changes, and atmospheric composition <p>Weeks 6-8: Environmental Impacts of Climate Change</p> <ul style="list-style-type: none"> - Extreme weather events: floods, droughts, storms, and heatwaves - Oceans and cryosphere: sea level rise, acidification, and ice melt - Biosphere: species migration, habitat loss, invasive species, and extinctions - Land systems: soil erosion, land degradation, wildfires, and permafrost thaw 							
ILAS Seminar-E2 :Climate change impacts on the humansphere (気候変動が生存圏に与える影響) (2)へ戻る							

Week 9: Vulnerable Regions

- Polar regions and the cryosphere
- Coastal and island regions
- Semi-arid and arid regions

Weeks 10-11: Socio-Economic Impacts

- Agricultural disruption and freshwater scarcity
- Public health risks and food security
- Economic losses and inequality
- Migration, displacement, and conflicts

Weeks 12-14: Discussion and Project Sessions

- Possible solutions to climate change
- Defining responsibilities: global equity and climate justice
- Adaptation, mitigation, and the "loss and damage" debate
- The challenge of the global energy transition

Week 15: Final Examination

Week 16: Feedback

【履修要件】

This seminar does not require prior knowledge on the topic and is mainly based on graphics and documents to interpret.

【成績評価の方法・観点】

Evaluation will be:

Active participation in class: 40 pts

Assignments/projects at home: 30 pts

Final examination: 30 pts

【教科書】

Not used. Slide handouts will be distributed.

【参考書等】

(参考書)

Mainly, Intergovernmental Panel on Climate Change (IPCC) reports.

【授業外学修(予習・復習)等】

Materials (pdf files) will be made available before class.

Students are encouraged to study the materials before and after each class in order to assimilate technical or uncommon words.

Depending on the topic, the study of the materials and the preparation of the report for the evaluation may take several hours per week.

【その他（オフィスアワー等）】

Materials (pdf files) are available on the Kulasis website. Email communication is available for questions outside of class time.

【主要授業科目（学部・学科名）】