

Course number	U-LAS70 10002 SE50				
Course title (and course title in English)	ILAS Seminar-E2 :Climate change impacts on the humanosphere (気候変動が生存圏に与える影響) ILAS Seminar-E2 :Climate change impacts on the humanosphere	Instructor's name, job title, and department of affiliation	Research Institute for Sustainable Humanosphere Professor,Luce , Hubert		
Group	Seminars in Liberal Arts and Sciences	Number of credits	2	Number of weekly time blocks	1
Class style	seminar (Face-to-face course)	Year/semesters	2024 ・ Second semester	Quota (Freshman)	5 (5)
Target year	Mainly 1st year students	Eligible students	For all majors	Days and periods	Fri.5
Classroom	23, Yoshida-South Campus Bldg. No. 1			Language of instruction	English
Keyword	Climate change / environment / humanosphere				
[Overview and purpose of the course]					
<p>This seminar provides an overview of our knowledge of the current climate change, its causes and its potential impact on the humanosphere (atmosphere, hydrosphere, cryosphere and biosphere). Within the frame of the Sustainable Development Goals (SDG13: climate action) of the United Nations, possible strategies either to adapt to climate changes or to mitigate them are presented and discussions will be proposed. The lecture will be partly based on information from Intergovernmental Panel on Climate Change (IPCC) reports and used in popular scientific works.</p>					
[Course objectives]					
<p>Students will gain an in-depth understanding of the issue of climate change, and its causes, linked to our development model essentially based on the use of non-renewable fossil fuels and raw materials. They will be able to discuss the issue in English from an informed point of view. This is done through individual or group projects to focus on a particular aspect covered during the sessions.</p>					
[Course schedule and contents]					
<p>1. (Weeks 1-3) Introduction: Our growing influence on our environment. - The history of man and his growing use of energy. - The fossil fuels: Sources of considerable progress, why have they become a problem?</p> <p>2. (Week 4-5) A brief description of the physical mechanisms of climate change and its relationship with the use of fossil fuels.</p> <p>3. (Weeks 6-9) Manifestations of the climate change: - atmosphere (climate evolution, atmospheric disasters, ...) - oceans and cryosphere (sea level rise, acidification, ice melt, ...) - impacts on the biosphere and land degradation - fresh water issues</p>					
<p>Continue to ILAS Seminar-E2 :Climate change impacts on the humanosphere (気候変動が生存圏に与える影響) (2)</p>					

4. (Weeks 10-11)

The potentially most affected regions by the climate change:

- The polar regions
- The coastal areas
- The semi-arid regions

5. (Week 12-14)

Solutions to climate change? Sessions of discussions.

- How to define responsibilities?
- Adaptation, mitigation, loss and damage.
- The complex issue of “ energy transition ”

6. (Week 15)

Final examination.

7. (Week 16)

Feedback.

[Course requirements]

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

[Evaluation methods and policy]

Evaluation will be:

Active participation in class: 30 pts

Assignments/projects at home: 30 pts

Final examination: 40 pts

[Textbooks]

Not used. Slide handouts will be distributed.

[References, etc.]

(**References, etc.**)

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

[Study outside of class (preparation and review)]

Materials (pdf files) are made available before class.

Students are encouraged to study materials before and after each class for assimilating technical or uncommon words.

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

[Other information (office hours, etc.)]

Materials (pdf files) are available on Kulasis website. Communication by emails are possible for questions outside of class hours.