

Course number		U-LAS60 10002 LE17					
Course title (and course title in English)	Interdisciplinary Sciences-E2 :Global Changes			Instructor's name, job title, and department of affiliation	Disaster Prevention Research Institute Professor,Sameh Kantoush Graduate School of Science Professor,ZWINGMANN, Horst Friedrich August Disaster Prevention Research Institute Senior Lecturer,LAHOURNAT, Florence		
	Interdisciplinary Sciences-E2 :Global Changes						
Group	Interdisciplinary Sciences		Field(Classification)		Interdisciplinary Sciences		
Language of instruction	English		Old group		Number of credits	2	
Number of weekly time blocks	1	Class style	Lecture (Face-to-face course)		Year/semesters	2025 • Second semester	
Days and periods	Thu.5		Target year	Mainly 1st year students	Eligible students	For all majors	
[Overview and purpose of the course]							
The main purpose of this course is to address the phenomenon of climate change from a variety of angles, using the IPCC 6th Assessment Reports (Summary for Policymakers) as a base for learning, reflection, and discussion. Along the semester, we will be using the three IPCC Working Group reports: - WG I: The physical science basis, - WG II: Impacts, adaptation, and vulnerability, and - WG III: Mitigation of climate change. This course encourages students to develop self-learning skills and English expression skills, through assigned self-directed group discussions and presentations.							
[Course objectives]							
To gain knowledge regarding the current understanding of the scientific basis of the global warming issue, and some of the perspectives for adaptation and mitigation.							
[Course schedule and contents)]							
1. Detailed orientation (1 week) “ Preparation to understand the class ” • Short self-introduction from each lecturer • Identification of each part of the class as independent and expertise area • Description of the class outline and objectives • Schedule, assignments, evaluation, textbooks/references, … 2. General introduction (1 week) “ Fundamental perspectives on global changes based on the IPCC reports ” • General Q&A session about global changes • Group composition we expect six groups (about 5 students/group) working through each theme and re-shuffling to ensure a good balance of nationality, background, and gender within each group • Self-introduction of all students 3.~6. Theme 1 (4 weeks) “ The physical science basis of global warming ” • Week 1: short lecture by Zwingmann, and the commencement of group work • Week 2: group work (preparation of presentation) • Week 3 & 4: group presentations and discussions (25 min x 3 groups x 2 weeks) ★Feedback will be given at the end of the presentation sessions (15 min)							
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7.~10. Theme 2 (4 weeks) “ Impacts, adaptation and vulnerability ”

- Week 1: short lecture by Lahournat, and the commencement of group work
- Week 2: group work (preparation of presentation)
- Week 3 & 4: group presentations and discussions (25 min x 3 groups x 2 weeks)

★Feedback will be given at the end of the presentation sessions (15 min)

11.~14. Theme 3 (4 weeks) “ Mitigation of climate change ”

- Week 1: short lecture by Kantoush, and the commencement of group work
- Week 2: group work (preparation of presentation)
- Week 3 & 4: group presentations and discussions (25 min x 3 groups x 2 weeks)

★Feedback will be given at the end of the presentation sessions (15 min)

15. Feedback (1 week) “ Closing session ”

- General discussion: remarks and comments by all
- Final remarks

[Course requirements]

None

[Evaluation methods and policy]

Assessment for the class will base on the following four criteria:

1. Class attendance/active participation in the group work (40%),
2. Group presentations for the three Themes (40%), and
3. Individual report for one of the three Themes (20%).

Details on each criterion will be announced during the first week of class.

[Textbooks]

Not used

No textbook. Use the pdf files of the IPCC WG reports, which will be available on Panda.

[References, etc.]

(References, etc.)

IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

[Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Pean, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekci, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 3—32, doi:10.1017/9781009157896.001.

IPCC, 2022: Summary for Policymakers. In: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. [H.-O. Poertner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegria, M. Craig, S. Langsdorf, S. Loeschke, V. Moeller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press. pp. 1-35. <https://www.ipcc.ch/report/ar6/wg2/>

IPCC, 2022: Summary for Policymakers. In: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on

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Climate Change. [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. pp. 1-52. doi: 10.1017/9781009157926.001.

Also, some reference books as

Koonin, S. E., 2021: Unsettled: What Climate Science Tells Us, What It Doesn't, and Why It Matters. BenBella Books, Inc., Dallas, 306pp.

クーニン スティーブン・E (著) 三木 俊哉 (訳) , 2022: 気候変動の真実 科学は何を語り、何を語っていないか? 日経BP, 372pp.

Vince, G., 2022: Nomad Century: How to Survive the Climate Upheaval. Allen Lane, 288pp.

ヴィンス, ガイア (著) 小坂恵理 (訳) , 2023: 気候崩壊後の人類大移動. 河出書房新社, 320pp.

Schultz, D. M., 2009: Eloquent Science. A practical guide to becoming a better writer, speaker, and atmospheric scientist. American Meteorological Society, pp. 412.

木下是雄, 1981: 理科系の作文技術. 中公新書 624, pp. 244.

[Study outside of class (preparation and review)]

Students are expected to read the recommended resources for each WG report, to be able to actively participate during discussion.

To prepare for each presentation, students may need to meet with their group in between sessions, outside the class time.

[Other information (office hours, etc.)]

■ The expected number of students is about 30, distributed across 6 groups of about 5 students each. Priority will be given to the ILAS International Education Program students (compulsory credits) and the Kyoto iUP students enrolled in the programs, with any remaining slots open to other students.

■ Students are expected to bring their own computer device (laptop, tablet, etc.).

■ Regarding office hours, use Panda to send an e-mail to request an appointment.