

Course number		U-LAS61 10012 LE68								
Course title (and course title in English)		Introduction to Biological Invasion-E2 Introduction to Biological Invasion-E2			Instructor's name, job title, and department of affiliation		Research Institute for Sustainable Humanosphere Senior Lecturer,YANG, Chin-Cheng			
Group		Interdisciplinary Sciences		Field(Classification)		Environmental 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		2024 • Second semester	
Days and periods		Thu.4		Target year		Mainly 1st & 2nd year students		Eligible students		For all majors
[Overview and purpose of the course]										
The purpose of this introductory course is to provide students a fundamental understanding of biological invasions as invasive alien species represent the 2nd severest threat on Earth's ecosystems. This lecture will introduce various red-flag invasive species (from virus to vertebrate) that have been introduced into Japan and other parts of the world and focus on how these species impact the ecosystem. In addition to lectures, students will have opportunities to explore the invasive species through a diverse set of practices including field trip (campus or national park), movie and hands-on section.										
[Course objectives]										
Students will gain an understanding of the core principles of biology and management of invasive species from infamous examples (ex. fire ants, cane toad...). The ultimate goal is to have students confront the problems that we human beings have been ignoring and thus facilitate the global attention on this costly issue.										
[Course schedule and contents)]										
In principal, the course will be offered as the following plan. However, the order or time for each theme may change depending on the progressive of the course or handling on current topics. Note that students may have to pay their own transportation fee for the proposed field trips.										
Week 01: Course introduction										
Week 02: Introduction to biological invasion I -General introduction of invasive species										
Week 03: Introduction to biological invasion II -How to become a successful invasive species										
Week 04: World worst invasive insect -Introduce world's worst invasive insects										
Week 05: World worst invasive arthropod -Introduce world's worst invasive non-insect arthropods										
Week 06: World worst invasive plant/fungus -Introduce world's worst invasive plants and fungi										

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Week 07: Field trip* (see Others for more details)

Week 08: Movie for invasive disease/discussion

-Watch a movie themed with invasive pathogen and discussion

Week 09: World worst invasive mammals

-Introduce world's worst invasive mammals

Week 10: How invasive species related to global change/Discussion

-How are invasive species benefited by global change

Week 11: How invasive species threaten our Humanosphere/Case study

-Class discussion on various threats of invasive species on our society

Week 12: How to control invasive species

-Class activity to understand how to control invasive species in general

Week 13: Student Oral presentation 01

-Group presentation

Week 14: Student Oral presentation 02

-Group presentation

Week 15: Term papers

Week 16: Feedback

[Course requirements]

None

[Evaluation methods and policy]

50% in-class discussion; 30% term paper; 20% presentation

[Textbooks]

MA Davis 『Invasion biology』 (Oxford University Press, 2009)

[References, etc.]

(**References, etc.**)

MN Clout, PA Williams 『Invasive species management: a handbook of principles and techniques』 (Oxford University Press, 2009)

[Study outside of class (preparation and review)]

Students are encouraged to preview lecture materials and participate in class discussion, as lecture materials and most of the supplementary readings will be posted on KULASIS and Panda at least 1 day in advance.

[Other information (office hours, etc.)]

Lecturer: Chin Cheng Yang (ccyang@rish.kyoto u.ac.jp)

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Office: HW 412, Research Building No. 1, Uji Campus

Office hours: to be announced

Note: There is a possibility that the instructor may organize a field trip that normally is a one-day event on the weekend, instead of the regular slot of this lecture. The lecturer will discuss date and time with students for the field trip at the beginning of the semester. Students are advised to pay the travel expense. Also, be advised to obtain the insurance for study and research “ Personal Accident Insurance for Students Pursuing Ed. & Rsch.(学生教育研究災害傷害保険) ” if you decide to take the class