

Course number	U-LAS15 10010 LE58					
Course title (and course title in English)	How the Earth Works II-E2 :Earth's History How the Earth Works II-E2 :Earth's History		Instructor's name, job title, and department of affiliation	Graduate School of Science Associate Professor,ENESCU, Bogdan Dumitru		
Group	Natural Sciences		Field(Classification)	Earth Science(Foundations)		
Language of instruction	English		Old group	Group B	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	Mon.5	Target year	All students		Eligible students	For all majors
[Overview and purpose of the course]						
The Earth was born as a "fireball" of mixed molten rock and metal; after subsequent hardening, it was very similar with the other "inner" planets: Mars, Venus and Mercury. However, Life was formed only on planet Earth. Why Earth followed a different destiny from other planets? During this lecture we will follow the history of Earth's evolution, from its formation until present days. To facilitate understanding and encourage active participation during the class, some materials and vocabulary in Japanese will be also provided.						
[Course objectives]						
The student will familiarize with the most important events in the Earth history and will be able to understand the formation and structure of planet Earth.						
[Course schedule and contents)]						
<ul style="list-style-type: none"> - Formation of the Solar System and the Earth; - Structure of the Earth; - Beginning of Plate Tectonics; - Birth and evolution of Life; - Atmosphere evolution: oxygen and carbon dioxide; - The supercontinent cycle; - Continent fragmentation and magmatic activity; - Macro-evolution of Life and extinction episodes. <p>For each of the topics above, we plan 1-2 classes.</p>						
[Course requirements]						
None						
[Evaluation methods and policy]						
Evaluation will be based on class attendance and active participation (30%), class-room exercises (30%) and a final examination (40%).						

Continue to How the Earth Works II-E2 :Earth's History(2)						

How the Earth Works II-E2 :Earth's History(2)

[Textbooks]

A pack of class materials (mainly Power Point files) will be provided to students. The following textbook is recommended, but not required:

C.H. Langmuir and W. Broecker, How to Build a Habitable Planet: The Story of Earth from Big Bang to Humankind, Princeton University Press, 2012, ISBN: 9781400841974 (*Japanese edition available).

[References, etc.]

(References, etc.)

John P. Grotzinger and Thomas H. Jordan 『Understanding Earth (7th edition)』 (W.H. Freeman and Company) ISBN:978-1-4641-3874-4

[Study outside of class (preparation and review)]

Students will be expected to do readings in preparation for the class. Class-related materials should be downloaded and printed out by students, from a dedicated website, which will be announced at the beginning of the lecture.

[Other information (office hours, etc.)]

Students can meet me during office hours with prior appointment. The number of students who can take this class will be limited to a maximum of 60 students.

[Essential courses]