COURSE DETAIL

ISLAND ARCS
Country Japan
Host Institution Tohoku University
Program(s) Engineering and Science
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Geography Environmental Studies Earth & Space Sciences
UCEAP Course Number 111
UCEAP Course Suffix
UCEAP Official Title ISLAND ARCS
UCEAP Transcript Title ISLAND ARCS
UCEAP Quarter Units 3.00
UCEAP Semester Units 2.00

Course Description

This course presents basic concepts and information of plate tectonics and the tectonic history of the Asiatic continent and the Japanese islands, active faults and earthquakes, and volcanoes. The lectures include how past and recent environment influence human livelihood.

The course covers the following topics:
- Introduction of the course
- Basics of Plate tectonics
- Plate margin and Japan island arc
- Rock structure beneath surface
- Geology and natural resources
- History of earth and geological timescale
- Earthquake and active faults
- The Great East Japan earthquake
- Rheology of rocks and subduction zone earthquake cycles
- Volcanoes
- Advancement in geodynamics with space geodesy
- Advancement in geodynamics with InSAR and machine learning

Language(s) of Instruction
English

Host Institution Course Number
N/A

Host Institution Course Title
EVOLUTION OF ISLAND ARCS AND THEIR ENVIRONMENT

Host Institution Course Details
https://www.insc.tohoku.ac.jp/english/wp-content/uploads/2024/04/VJ222S6_.pdf

Host Institution Campus
Tohoku University

Host Institution Faculty
Host Institution Degree
Host Institution Department JYPE
Course Last Reviewed 2023-2024

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