

SUSTEP program Environmental Field Appraisal (0AND371) -Tohoku trip-

Disaster prevention -Earthquake and tsunami in coastal areas-

Instructor: Youichi Kamae (kamae.yoichi.fw@u.tsukuba.ac.jp)

Period: July 30 – August 1, 2024

Place: Sendai and Ishinomaki city in Miyagi and Rikuzentakata city in Iwate

Orientation: Early July

Objective

Japan experienced great earthquake on March 11, 2011. The earthquake also caused tsunami. The joint disaster of earthquake and tsunami killed more than 20,000 people and caused economic damage more than 200 billion USD.

Through this internship in coastal regions of Tohoku district (Miyagi and Iwate Prefectures) in Japan, participants try to find answers to two questions listed below.

- Group A: What can be done to minimize damage when earthquakes and tsunamis occur? (for example, early warning system, evacuation strategy, etc)
- Group B: What can we learn from social issues in Tohoku region after the Megaeearthquake 2011? (for example, evacuation life, balancing measures against disasters with regional economic recovery in rural areas, etc)

Group work

Participants will be divided into two groups. Each group will have group discussion on the question.

Schedule

- July 30

8:00 Gather at Tsukuba campus Administration Center rotary, chartered bus from campus to Miyagi

Breaks and lunch at service areas

13:30-14:00 Miyagi 3.11Tsunami Disaster Memorial Museum

14:00-15:30 Kadenowaki Elementary School Ruins (with English guidance)

15:30 Bus departure

17:00 Arrival at Hotel

17:00-19:00 Group discussion at meeting room in the hotel

- July 31

Breakfast in the hotel

8:30 Walking in Sendai city

9:00-10:00 Sendai City Museum

10:00 Bus departure

12:30 Takatamatsubara Michinoeki

Lunch at restaurant

13:00-14:00 Iwate Tsunami Memorial Museum (with English guidance)

14:00-14:30 Free tour in the park

14:30 Bus departure

17:30 Arrival at hotel

● August 1

Breakfast in the hotel

8:30-10:00 Group discussion and group presentation at meeting room in the hotel

10:00 Bus departure

11:00-12:00 Matsushima cruise ship (Niomaru course)

12:00 Lunch

13:00 Bus departure

17:30 Arrival at Tsukuba campus Administration Center rotary, break up

Report submission

Summarize your own thoughts on the two questions and submit it to Kamae sensei (kamae.yoichi.fw@u.tsukuba.ac.jp).

Deadline: 6PM, August 8 2024

Format: PDF, within 2000 words in English

Hotel

Hotel Premium Green Hills, 2-8-11 Chuo, Aoba-ku, Sendai 980-0021, Miyagi

<https://www.bh-green.co.jp/hills/>

Other resources

Monitoring of Waves on Land and Seafloor, Nationwide observation network for earthquakes, tsunamis, and volcanoes over land and sea (NIED) <https://www.mowlas.bosai.go.jp/mowlas/?LANG=en>

<https://link.springer.com/article/10.1186/s40623-020-01250-x>

<https://www.youtube.com/watch?v=f287XAzywNw> (use English subtitles)

Earthquake Early Warning System (Japan Meteorological Agency)

<https://www.jma.go.jp/jma/en/Activities/eeew.html>

World Bank, 2012: The Great East Japan Earthquake – Learning from megadisasters: Knowledge notes, executive summary. © Washington DC. <http://hdl.handle.net/10986/17107>

The school beneath the wave: the unimaginable tragedy of Japan's tsunami
<https://www.theguardian.com/world/2017/aug/24/the-school-beneath-the-wave-the-unimaginable-tragedy-of-japans-tsunami>

Kadonowaki Elementary School Ruins <https://www.ishinomakiikou.net/en/kadonowaki/>

Iwate Tsunami Memorial Museum <https://iwate-tsunami-memorial.jp/en/index.html>

Takatamatsubara Michinoeki <https://takata-matsubara.com/>

Matsushima cruise ship <https://www.matsushima.or.jp/en/>