Subject (English)	Geological Environment and Earthquake Disaster		Semester	Spring	Day/Slot	Thu./1st 8:50-10:20
科目名 (日本語)	地盤環境と地震災害					
Course Code	VJ241S9	Course Numbering	UJY-ABS201E		Period	Apr. 11 - Jul. 4, 2019
Instructor (Post)	Masato MOTOSAKA (Emeritus Professor/Part-time instructor)				Campus	Aobayama
					Building	Civil Engineering and Architecture
Faculty	Faculty of Engineering		Credits	2	Class Room	No.2 lecture room (103 room)

Class subject	Geological Environment and Earthquake Disaster

Object and summary of class

This course comprises the lectures, students' presentations and discussions on engineering topics for earthquake disaster prevention considering geological environment.

Keywords	-

Goal of study

To understand the difference of ground motions due to soil conditions for earthquake countermeasures

Contents and progress schedule of class

It is clear through past disastrous earthquakes that the earthquake damage is quite different depending on the geological conditions. The earthquake observation explains this truth. Therefore, it is important to take into account the difference of ground motion due to soil conditions in a seismic design of urban structures and in urban disaster prevention planning. In this course, two reports are requested and students make presentation based on the materials of the task during classes.

Course Schedule

No.	Date	Topics
1	4/11	Introduction to Earthquake and Building Structures
2	4/18	Recent Earthquake Damage and Lessons (I)
3	4/25	Recent Earthquake Damage and Lessons (II)
4	5/9	Students' presentation on the 1st Report and Discussion
5	5/16	Measurement of Ground Motion and Structural Vibration
6	5/23	Overview of Geological Structure and Ground Motion Characteristics
7	5/30	Introduction to Wave Propagation Theory and Structural Vibration
8	6/6	Structural Health Monitoring
9	6/13	Earthquake Damage Prediction –Natural and Social Information–
10	6/20	Seismic Protection Technology –Earthquake Early Warning System–
11	6/27	Recent Topics on Earthquake Disaster Prevention Projects
12	7/4	Students' presentation on the 2nd Report and Discussion

Preparation	-
Record and evaluation method	The evaluation will be based on the reports and presentations for the requested subjects.
Textbook and references	In each lecture, the relevant material will be handed out.
Self study	-
In addition	-