

Subject (English)	Basic of natural disaster science and its application for BOSAI		Semester	Spring	Day/Slot	Wed./3 rd 13:00 – 14:30
科目名 (日本語)	自然災害科学の基礎と防災への適用					
Course Code	TBC	Course Numbering	TCA-CAE 3 XXX E		Period	Apr. 10 – Jul.24, 2019
Instructor (Post)	Anawat SUPPASRI, Erick MAS (Assoc. Prof.) (Assoc. Prof.)			Campus	Aobayama	
				Building	International Research Institute of Disaster Science (IRIDeS)	
Faculty	Department of Civil Engineering and Architecture		Credits	2	Class Room	Small meeting room 2(4F)
Class subject	-					
Object and summary of class						
This class focuses on various aspects of natural disaster science and their practical application for disaster mitigation and risk reduction						
Keywords	Natural disasters, disaster mitigation, disaster risk reduction					
Goal of study						
Throughout the concepts of disaster management and preparedness, students will learn and discuss the basics of disaster history, hazard generation and mechanisms, their impact, related emergency response, medical needs and post-disaster reconstruction.						
Contents and progress schedule of class						
No	Date	Topics				
1	4/10	Introduction – Concepts and about this course				
2	4/17	Overview of Disasters in the World and Role of International Organizations				
3	4/24	The 1960 Chile Tsunami and Establishment of the Pacific Tsunami Warning System				
4	5/8	The 2004 Indian Ocean Earthquake and Tsunami				
5	5/15	The 2011 Tohoku Earthquake and Tsunami				
6	5/22	Tsunami Modeling Technology and its Application for Tsunami Warning System				
7	5/29	Tsunami Evacuation Simulation				
8	6/5	Disaster Damage Estimation Using Fragility Curves				
9	6/12	Disaster Damage Estimation Using Remote Sensing Techniques				
10	6/19	Disaster Mitigation 1 -Water-related Disasters: BOSAI in ASEAN Countries				
11	6/26	Disaster Mitigation 2 - Urban resilience simulation				
12	7/3	Disaster Mitigation 3- Disaster History and Anthropology				
13	7/10	Medical assistance in large scale disasters				
14	7/17	Issues in post disaster reconstruction				
15	7/24	Final presentation by student groups				
-						
Record and evaluation method			Attendance, group discussion, reports and final presentation			
Textbook and references			Lecture notes will be uploaded or provided in the class			
Self study			<ul style="list-style-type: none"> Natural Catastrophe Risk Management and Modelling: A Practitioner's Guide: Section 3.8 Tsunami, Edited by Kirsten Mitchell-Wallace, Matthew Jones, John Hillier, Matthew Foote, Wiley-Blackwell, May 2017, 536 pages. ISBN: 978-1-118-90604-0 Handbook of coastal disaster mitigation engineers and planners, Edited by Esteban, M., Takagi, H. and Shibayama, T., Elsevier, July 2015, 788 pages. ISBN: 978-0-128-01060-0 Kuroiwa, J. Disaster Reduction: Living in Harmony with Nature. Editorial NSG., 2004, 495 pages. ISBN-10: 9972999904 			
In addition			-			