Course Syllabus

Associate Professor Dr. Sucharit Koontanakulvong, Dr. Anulak.., Dr. Piyatida….,

1. **Course number :** 2112-681
2. **Credit :** 3 credits (3-0-9)
3. **Course name :** Engineering for Water Disaster Mitigation
4. **Faculty/ Department :** Faculty of Engineering, Department of Water Resources Engineering
5. **Semester :** Second Semester
6. **Academic Year :** 2019
7. **Name of Instructor :** Assoc. Prof. Dr. Sucharit Koontanakulvong, Dr. Anulak, Dr. Piyatida
8. **Prerequisite :** Consent of instructor
9. **Status of the course :** Elective
10. **Name of program :** Master of Engineering in Water Resources Engineering
11. **Course level :** Graduate
12. **Hours/ week :** 3 hours of lecture (9 hours of self-study)
13. **Course content:** Introduction to water disaster resilience, causes and mitigation of flood disaster, basic concept of designing flood mitigation and risk in hydrologic, hydraulic and coastal engineering, field trip to water disaster prone areas
14. **Course description:**

14.1 Objectives: Students are expected to gain

1. Describe the principles of water disasters occurrences (flood, coastal erosion etc.);
2. Describe the mitigation measures via literature review and field visit;

14.2 Course outline

1. Introduction to Water Disaster Mitigation Engineering
2. Flood Disaster
3. Land Subsidence
4. Land slides
5. Geo risk Engineering
6. MS
7. Field trips (land slides and coastal erosion)
8. Project presentation

14.3 Teaching method

- Lecture & presentation
- Assigned readings
- Assignments & report writing
- Site Visit or Special Lectures (if available)

14.4 Evaluation

- Report 50%
- System design workshop 30%
- Presentation 20%

2112-681 Engineering for Water Disaster Mitigation, Second Semester 2013

Associate Professor Dr. Sucharit Koontanakulvong
and team

Course Schedule

Week	Day	Topic	Instructors
1	02/11/56	Introduction: Mitigation system and Probability concept	Sucharit/Piyatida
Module 1: Flooding Disaster			
2	09/11/56	Flooding Disaster -1	Sucharit K.
3	16/11/56	Flooding Disaster -2	Sucharit K.
4	23/11/56	Flooding Disaster-3	Sucharit K.
5	30/11/56	Site visit	Piyatida
Module 2: Land Subsidence			
6	07/12/56	Land subsidence-1	Noppadol
7	14/12/56	Land Subsidence-2	Noppadol
Module 3: Land slides			
8	21/12/56	Land slides	Suttisak
9	26/12/56	Landslides-2	Suttisak
10	04/01/57	Site visit	Suttisak
Module 4: Geo risk Eng			
11	11/01/57	Geo risk	Ohtsu
Module 5: MS			
12	18/01/57	Disaster and Health Risk Management for Liveable City (MS	
Module 6: Mitigation system design			
13	25/01/57	Mitigation system design	Sucharit
14	01/02/57	Flood system Water Resources system Coastal System Dam system	Piyatida and all
Module 7: Project presentation			
15	08/02/57	**Final Project presentation Examination**	all