

Subject: Control Measures for Landslide & Debris Flow

Course number : DMP 3840E

Instructor : Prof. Koichi KONDO

Term / Time : Fall through Winter

1 Course Description

This course provides the necessary knowledge and understanding of landslide and debris flow phenomena and their control measures necessary to exercise the IFRM. The lecture will illustrate the devastating phenomena and the causes of landslides and debris flows and provide the basic concepts of the measures for sediment-related disasters, so-called Sabo Works which is executed in the hill slopes and the channels. It will cover the important role of hazard mapping for sediment-related disasters in both structural and non-structural measures.

2 Course Outline (Course Topics)

Week

1 . Outline of sediment-related disasters and Sabo projects	Prof. Kondo
2 . Sediment yield, transport and deposition in a river basin	Prof.Sasahara
3 . Sabo planning and control of sediment transport	Prof.Sasahara
4 . Planning and design of Sabo facilities	Prof. Sasahara
5 . Restoration of vegetation on wasteland and its effects	Prof .Osanai
6 . Countermeasures for natural Dams	Prof . Osanai
7 . Introduction of landslides	Dr. Tsunaki
8 . Survey and emergency response for landslides	Dr.Tsunaki
9 . Permanent measures for landslide damage reduction	Dr. Tsunaki
1 0 . Warning and evacuation system for sediment-related disasters	Dr.Hara
1 1 . Hazard mapping for sediment-related disasters	Dr. Takanashi
1 2 . Training of hazard mapping for sediment-related disasters (1)	Dr. Takanashi
1 3 . Training of hazard mapping for sediment-related disasters (2)	Dr. Takanasi
1 4 . Application of Sabo/landslide projects to other countries (1)	Prof.Kondo
	Prof . Osanai
1 5 . Application of Sabo/landslide projects to other countries (2)	Prof.Kondo
	Prof . Osanai

3 Grading

Class participation (30%) Report and final examination (70%)

4 Textbooks

4-1 Required

4-2 Others