

The detailed course program:

Sunday 31 July, 2016:

All students arrived to Yakutsk, Russia.

Monday 1 August:

Registration by NEFU staff

Introduction to the course (Kenji Yoshikawa & Mikhail Prisyazhniy, Atsuko Sugimoto & Trofim Maximov (short introduction and greeting))10-12 (one lecture)

Climate of permafrost areas (Kenji Yoshikawa) 13-16 (two lectures and one exercise hour; two lectures on Climate of permafrost regions, and one exercise on using Russian Permafrost Network

Tuesday 2 August:

History of permafrost research (Kenji) (one lecture, 9-10), Permafrost in the Siberia (Kenji) (two lecture, 10-12), Permafrost databases (Misha) (one lecture, one exercise 13-15; Short intro lecture to the Russian database and it's research background (TSP Russia), and how to extract data.

15-16 Introduction of field trip to Spasskaya Pad (Atsuko Sugimoto or Alexander Kononov)

Formulation of group tasks on permafrost climates and biology at boreal forest to be completed and documented by oral presentations on Friday 12 August.

Wednesday 3 August:

Excursion to Spaskayapad 9-11

Vegetation, Greenhouse gasses (isotope, carbon cycle –Boreal forest) (Atsuko Sigimoto) (1 lectures, 11-12)

Field observations on greenhouse gases and vegetation (Alexander Kononov) (1 exercises) 14-15

Research history and direction of international joint research at Spasskaya Pad (Trofim Maximov) (1 lecture) 15-16

Thursday 4 August:

All day field excursion and fieldwork from Namutse to Yakutsk (Kenji, Dima) (Ice cellar, borehole sites/instrumentations, flooding site, agriculture, pingo, alas, polygons) 9-18.

Friday 5 August:

Natural Hazard (John) 9-12 (3 lectures), flooding, Lena River watershed, hydrological characteristics in northern river basin (John, Kenji 13-15)

Monday 8 August:

Permafrost in Alaska, high mountains from Tropical to Arctic, Antarctica (Kenji) (two lecture, 9-12), Permafrost drilling techniques (Kenji) (one lecture, 13-14), ground temperature analyses (Kenji (one exercise, 14-15) thermistor calibration and borehole instrumentation (Kenji) (two exercises, 15-17)

Tuesday 9 August:

Permafrost drilling in alas/pingo (Kenji, Permafrost Institute) ()

Wednesday 10 August:

Laboratory work on permafrost cores and soil samples (Kenji, Hanne) (9-12).

Permafrost tunnel tour (Kenji) (two lectures, 13-15)

Thursday 11 August:

Periglacial geomorphology (Hanne) (Two lectures 9-11)

Social science, natural hazards and permafrost in Russia (Mikhail Pryszyzhnyy) (two lectures, 11-13)

Permafrost remote sensing thaw lakes and pingos (Kenji) (two lectures, 15-17)

Friday 12 August:

Group tasks on permafrost climates and biology at boreal forest to be completed and documented by oral presentations (Sugimoto, Yoshikawa)

Monday 15 August:

Planetary permafrost (Kenji) (two lectures) (10-12)

Northern studies and culture (Mikhail Pryszyzhnyy) (two exercises, 13-15)

Tuesday 16 August:

Permafrost hydrology (Kenji) (two lectures) (10-12)

Permafrost and infrastructure (Foundations, roads, airfields) (Kenji) (two lectures, 13-15)

Wednesday 17 August:

Geomorphological excursion to Bluss icing field, Amga road - (Lenya Gagarin) (full day).

Thursday 18 August:

Permafrost in the sea and in the coastal zone (Paul Overduin) (two lectures, one exercise 9-12)

Friday 19 August:

Oral presentations by all students of the course of the fieldwork, 9-11. Course evaluation 11-12.

Saturday 20 August:

Leaving students

We will do an oral evaluation with the students the last day of the course (19 August), and written report for specific topic during course program.