

PhD course in "Frost in Geotechnical Engineering"

You are hereby invited to the PhD course entitled "Frost in Geotechnical Engineering" during spring semester 2021. Credit points are 7,5 hsp (ECTS).

The course starts on March 31, 2021 with PhD students as main target group. Others are also welcome. Main part of the course is given on distance by using Zoom. Seminars will be an important part of the course as well as assignments and laboratory work. Some physical meetings at LTU might be necessary.

Important course content is: frost penetration, frost heave, classification of soils, thaw weakening, mechanical and thermal properties, some permafrost engineering and some aspects of artificial frozen ground. Language will be English.

Main supervisor: Professor (em) Sven Knutsson, LTU.

Literature: Frozen Ground Engineering, 2nd Ed.

O. B. Andersland and B. Ladanyi, ASCE

ISBN: 978-0-471-61549-1; 384 pages; October 2004

Reports and hand-outs will be provided.



Course structure: The content of the textbook will be covered. Each section of the book is introduced by lecture (-s). Each participant will write a seminar report related to the text or other relevant problem covered in the course. Subject is chosen together with supervisor. The written reports will be presented orally with prepared opposition by other participants, including active participation in discussions by all participants. All reports will be put together in a joint booklet, which will be provided to participants. Assignments will be given, incl. one related to the use of software for frost depth calculations. Tests in soil laboratory will also be a part of the course.

Additional information: Sven Knutsson, tel. +46 920 491332 or +46 70-6300486. E-mail: sven.knutsson@ltu.se. Detailed course program provided no later than March 26, 2021.

Sign up to Sven Knutsson no later than March 25, 2021, (sven.knutsson@ltu.se)

Cost: No cost for PhD students at Swedish universities. For participants not being PhD students a cost of € 1000 will be charged.