## 3rd Intensive Training Course on Soil Micromorphology (UdL)

## 30/09/2019 to 11/10/2019 at the Centre of Support to the Geological and Cartographic Institute in Tremp (Lleida)

Micromorphology is a study technique in earth sciences that describes, interprets, and measures the components, features, and fabrics of soils, regolith materials, and cultural components at the microscopic and submicroscopic levels. Undisturbed samples are required to see the arrangement and relationship of individual soil particles or components as they occur in nature, therefore



thin sections, observed through polarising microscopes are normally used.

This course will comprise lectures, exercices with thin sections provided by the lecturers and also with material brought by the participants and visits to a thin section lab. Both analogic and digital polarising microscopes will be available, with a maximum of 2 participants per microscope, as well as facilities to work with them during extra time and to discuss the participants own thin sections with lecturers and colleagues. A certificate issued by the University of Lleida, under the auspices of the International Soil Science Society and the Institut Cartogràfic i Geològic de Catalunya will be handled to the participants who attend a minimum hours of lectures.

The contents of the course are:

- Principles of mineralogy and petrography, optical mineralogy
- Micromorphology sampling and making thin sections
- Guidelines for the description of thin sections of soils and regoliths, plant components.
- Micromorphology of soil materials and identification of soil formation processes: carbonate-, gypsum-, and salt affected soils, volcanic soils, clay accumulation, hydromorphic soils, tropical and highly weathered soils, glacial and periglacial processes, organic materials and faunal activity.
- Micromorphometry and image processing.
- Soil genesis and classification
- Geomorphology
- Paleosols
- Archaeology

An optional weekend excursion around the Tremp basin, to discuss on geology, Mediterranean soilscapes and soil genesis is also offered.

The lecturers are experienced professors and researchers from the Universities of Lleida, Ghent, Barcelona, Stellenbosch and La Laguna.

More information and registration: http://www.cfc.udl.cat/fc/curso/2322