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The university gardens: a natural classroom for soil study

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The European Space of Superior Education and specifically The Declaration of Bolonia signed by the Ministers responsible for Higher Education in 29 European countries are boosting a renewing of the traditional teaching methods in our universities. Most disciplines have incorporated and adapted the information technologies to their study object in order to achieve a more graphic and dynamic professor-student relationship. The requirement of cutting dawn theory and enhancing practice aspects have also led to intensify the efforts to update and design experiments. The laboratory experiments may be useful tools to hook the students but in the environmental sciences, an object studied in the lab is far away of its natural reality and functioning. Soils are dynamic entities in the nature. Because soil students are in the city and do not have a regular contact with the field, our aim was to teach soils operating in full capacity in the city. Taking advantage of the gardens of our university, a patch of nature in the city, we designed an experiment to show the 'vital signs' of soil and its temporal variability in a short time. In a landscaped area at the Faculty of Science we made a soil survey and subsequently we selected several areas for the installation of soil temperature, humidity, water tension, and respiration sensors. Students arranged by groups and connected on-line through blogs and social nets should record the measurements every day. Although the experiment has just starting, by this teaching method it is expected that the students achieve an experimental knowledge about soil and the way to study it, including measuring devices. They also will learn to organize and elaborate a soil report from real data, as well as work systems and habits for their future career.

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