

# **A practical approach to the spatial analysis of geoscientific data using a GIS**

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12 hours – 3 CFU

## **Short program of the Course:**

- The spatial nature of geo-scientific data. Coordinates and reference systems. Vectors and pixels (rasters). The GIS data structures - (2 h)
- Geostatistics and spatial analysis. DEM and TIN - (2 h)
- Defining the work space in a GIS. Importing data from file or from field devices. Querying, extracting and saving the data. - (2 h)
- Geoprocessing operations. Data spatialization and interpolation - (2 h)
- Map algebra and spatial analysis. Layouts and map publication - (2 h)
- Student oriented case studies - (2 h)