

## COURSE PROGRAM



GEOSTATISTICS AND  
GEOGRAPHIC  
INFORMATION SYSTEMS  
APPLIED TO  
VITICULTURE



## **MODULE 1.- THE FIRST STEPS WITH gvSIG**

- Precision viticulture
- Geographic information systems and remote sensing
- Installing gvSIG
- Importing your first vector layers
- Direct and indirect queries
- Symbols and labelling
- Importing aerial orthophotographs from you region
- Digitalizing plots
- Exercises

## **MODULE 2.- OBTAINING INTERPLOT ZONING MAPS**

- Create a digital terrain model (DTM)
- Obtaining the average height
- Obtaining plot slope conditions
- Automatically digitalization of regions of moisture accumulation
- Obtaining the average solar radiation
- Exercises

## **MODULE 3.- VARIABILITY MAPS AT THE INTRAPLOT LEVEL**

- Variability parameters and sampling points
- Digitalization of sampling points
- Creating variability maps
- Methods of interpolation: Inverse distance and Kriging

- Temporal analysis and spatial parameters of grape maturation: the optimal harvesting date
- Exercises

## **MODULE 5.- CREATION OF DISEASE PREDICTION MAPS**

- Goidanich model
- Obtaining percentage maps of Mildew (*Plasmopara viticola*) infection
- Obtaining risk maps for the presence of the Grape Berry Moth (*Lobesia botrana*)
- Exercises