



### **Soilless cultivation systems**

The course presents and analyzes the method of growing plants without the use of soil as a means of growing the root system. The advantages and disadvantages of the application of hydroponics, Organic and inorganic substrate preparation materials and their properties, hydroponic crop systems without substrates as well as aeroponic systems are presented. It also teaches the design and installations of hydroponic crops on a business basis, as well as the preparation of relevant studies. However, special importance is given to the substrates, to the nutrition of the plants in both open and closed hydroponic systems, as well as to the special cultivation technique of the main productive greenhouse plants.

The course includes the following subjects:

Organic and inorganic materials for the preparation of substrates. Properties of materials and substrates. Substrate mounting sockets. Hydroponic culture systems without substrates (N.F.T). Aeroponics systems. Nutrient solutions. Design, installation and operation of hydroponic crops on a business basis. Elaboration of relevant studies.