

Workshop on Plant responses to biotic and abiotic stresses

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Course organisation:

The course is mainly practical, organized on a research basis format. Additional teachings consist in tutorials, either connected with the research project (web based RNA-Seq data analysis - bioinformatics) or in round table format to interact on fundamentals of a scientific approach in plant research.

Total hours of practical work: 42

Total number of hours of tutorials: 8

Total number of hours spent on personal projects: 10

Targeted learning objectives:

To provide students with a technical base and scientific reasoning enabling them to get into future laboratory internships with greater confidence, thanks to the conduct of a small research project involving various experimental approaches (plant pathology, plant culturing and phenotyping, molecular biology, cytology, manipulation of plant-associated microbes, bioinformatics). These approaches are based on model plants, under development or subjected to abiotic or biotic stresses.

At the end of the course, students will be able to:

- Design and implement a scientific approach to answer a biological question(s);
- Present a scientific study: explain the process and summarise the main results and conclusions; know how to communicate a scientific message;
- Implement the basic approaches in phytopathology;
- Exploit databases as well as bioinformatics tool platforms (reinforcement).