Master’s Degree
Functional Biology and Ecology

(Ecologie et Biologie Fonctionnelle)

Université Toulouse III – Paul Sabatier
FSI – Faculté Sciences et Ingénierie
https://www.fsi.univ-tlse3.fr/
The FBE Masters is a two-year international program to train future engineers and scientific project managers in plant breeding, plant protection, environmental impact studies, ecosystems, biodiversity and environmental remediation.

The Master's degree also aims to prepare students who wish to pursue a Ph.D. in France or abroad with the goal of becoming future professors and researchers in the academic or industrial sector.

The FBE Masters is co-accredited by Paul Sabatier University of Toulouse and the University of Perpignan Via Domitia.

General Outlook

Classes are conducted in English by professors from Paul Sabatier University of Toulouse, the University of Perpignan Via Domitia, as well as by researchers from the CNRS (French National Centre for Scientific Research), INRAE (French National Research Institute for Agriculture, Food and Environment), and from several universities.

An important part of training is through immersion in the laboratories.

Watch the teaser: https://youtu.be/sjjiGGstKK
Particularities of the program

- Training in English only
- Problem-based learning directly linked to research
- Development of independence in carrying out a research project
- Two long internships, one of which can be completed abroad

Job perspectives

- **Fields of study:**

- **Training available after the masters:**
  Ph.D. programs.

- **Type of jobs available after the masters:**
  Project manager in sustainable development and the environment. Engineer in biotechnology, plant improvement, land management, remediation, research and development. Market researcher in biodiversity, agroecology and modelling.

  In the plant and environment fields: scientific consultant, project manager in research and development.

Requirements

- Hold a French licence (undergraduate) degree or a foreign bachelor’s degree or equivalent in life and/or environment sciences.
- Have a good level of English (written, read and spoken).

Key numbers

- 20 students in 1st year
- 30 students in 2nd year
- 6 laboratories or academic departments involved (> 700 people involved)
Education

Every student will enjoy **individual support**.

Students will study how living organisms are affected by changes in their environment and how they adapt. Studies will be performed from the molecular level to cells, organisms, populations, communities and ecosystems.

Emphasis is given to project-based teaching and immersion in professional situations to:

- **Apply** the fundamental notions in ecology, evolution, genetics, genomics and biochemistry,

- **Set up** a precise survey in a natural environment and evaluate the impact of anthropic activities on the environment,

- **Set up** bio-informatics and modelling approaches for biology, genetics and genomics, plant improvement, ecology and agroecology,

- **Use** the tools of genomics to evaluate the environmental impacts of various agricultural practices.

Partners / research laboratories

Through problem-based learning and internship periods, students will be in close contact with the research laboratories of the LabEx TULIP ([www.labex-tulip.fr](http://www.labex-tulip.fr)) and the socio-economic actors of the Occitanie region in the south of France.