

PHYSICAL, CHEMICAL, AND MICROBIOLOGICAL CHARACTERIZATION OF FOOD

LEVEL: MASTER 1

PERIOD: SEMESTER 2

LANGUAGE: EN (FR IN SEMESTER 1)

ECTS: 6

TEACHER/COORDINATOR: VINCENT DUMORTIER



1-Main objectives

This option is intended for students interested in R & D services, Quality or Production in agro-food industries. It is a technical approach to food science. Food products will be studied through three analytical domains: Physico-chemical, Rheology, and Microbiology.

2-Skills developed

- › Contribution to knowledge of food composition through physico-chemical analysis
- › Technological characterization of food through rheological or colorimetric analysis
- › Microbiological characterization of foods
- › Improvement of the student technical skills through new technologies and procedures of chemical, and physical characterization of food
- › Acquisition of a critical mind towards analytical methods, procedures and their results

3-General content

Lectures, practicals, visits

- › Biochemical and nutritional analysis (fats, proteins, carbohydrates, dry matter, minerals, vitamins...)
- › Physical analysis (rheology of solid, liquid, colorimetry of food...)
- › Interpretation of experimental data
- › Microbiological analysis of foods
- › Visit of a food analysis laboratory

Practical cases of analytical characterization will be carried out on the food-products that it will be duplicated in Project in Food Sciences – Formulations.

4- Evaluation

Written reports (practicals), individual written exam