UPEC
UNIVERSITÉ PARIS-EST CRÉTEIL

FACULTÉ DES SCIENCES
ET TECHNOLOGIE

Master's degree in Sciences and Technology for Agriculture, Food, and Environment
Integrative biology (OMICs)

Master's degree year 1 - semester 1

Biotechnology (6 ECTS)
Chemistry of natural substances and analytical techniques (5 ECTS)
Statistics (3 ECTS)
Bioresources valorisation (3 ECTS)
Economics and management (3 ECTS)
English (3 ECTS)
Integrative biology: introduction (2 ECTS)
Option (3 ECTS), choose between:
* Microbiology (3 ECTS)
* Geographical information representation and engineering (3 ECTS)
Option (2 ECTS), choose between:
* Plant ecophysiology (2 ECTS)
* Eukaryotic cell biology (2 ECTS)
* Food chemistry (2 ECTS)

Master's degree year 1 - semester 2

Broadband Omics platforms (3 ECTS)
Data mining (3 ECTS)
Surface chemistry and bio-arrays (3 ECTS)
Microbial and plant physiology (3 ECTS)
Animal physiology/physiopathology (3 ECTS)
Valorisation and regulation (3 ECTS)
English (3 ECTS)
Internship (9 ECTS)

Master's degree year 2 - semester 1

Advanced biostatistics (3 ECTS)
Omics in environment and ecotoxicology (4 ECTS)
Omics in toxicology and health (4 ECTS)
Glycomics and lipidomics (4 ECTS)
Genomics and transcriptomics (5 ECTS)
Proteomics and peptidomics (4 ECTS)
Other omcs and integrated systems (3 ECTS)
English (3 ECTS)

Master's degree year 2 - semester 2

Projects management (3 ECTS)
Internship (27 ECTS)