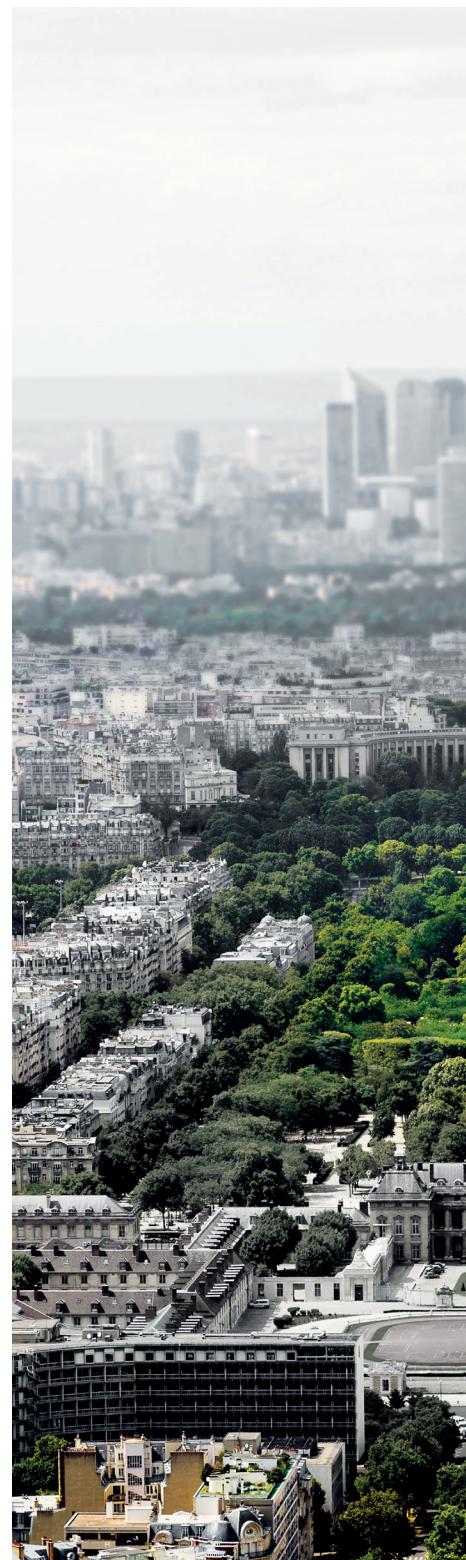
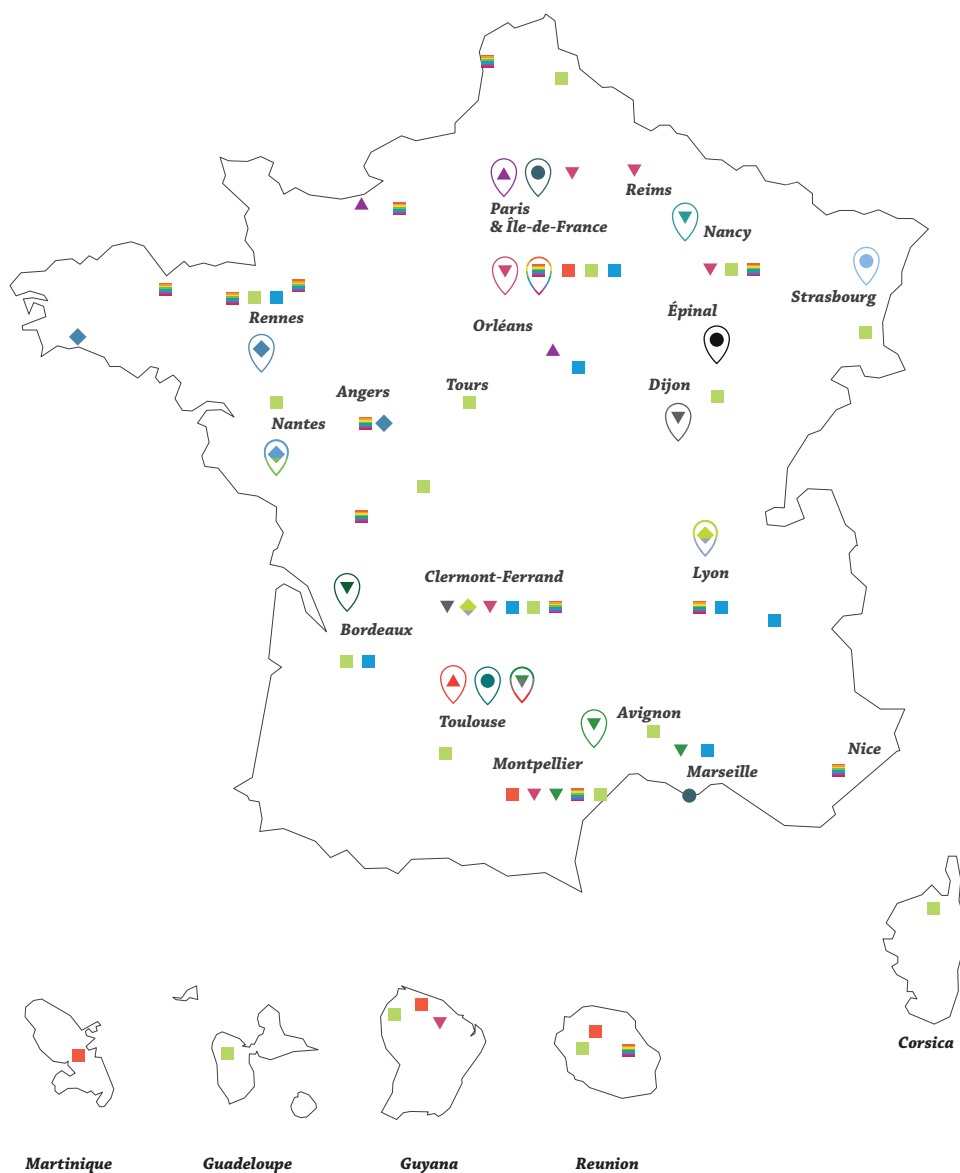


# > STUDYING LIFE SCIENCES IN FRANCE

*Programmes taught in **English*** <









**Members of Agreenium, the French agricultural, veterinary and forestry institute, provides master's level education programmes.** It is supported by research at its highest international level and benefits from the pooling of resources as well as the attractiveness of its partners. **This opens access to the jobs of the future to a diverse student population that looks forward to achieving the highest level of knowledge.**

Furthermore, **Agreenium members are all strongly involved in doctoral education.** The institutions host no less than 2,500 PhD students in their laboratories (300 own and partnership research units) and work in collaboration with doctoral schools.

At last, **Agreenium and its members decided to develop a range of bachelor's degrees and online courses** (MOOC, training programmes) on its agrobiosciences digital university, **Agreen U.**



# MASTER

## ERASMUS MUNDUS JOINT MASTER DEGREE (EMJMD) : TWO-YEARS PROGRAMMES

Erasmus Mundus Joint Masters Degrees (EMJMDs) are a key part of the Erasmus programme. Agreenium members are involved in some Erasmus Mundus Masters of Science (MSc) with international universities, providing unique study and training opportunities for postgraduate students.



Paris

### Erasmus Mundus **in Food Innovation and Product Design (FIPDes)**

**Partner HEIs\*:** Università degli studi di Napoli Federico II (Italy), Lund University (Sweden), Dublin Institute of Technology (Ireland).

#### > DESCRIPTION

The FIPDes is a two-year course in the field of food science, technology and innovation. Its aim is to **bring a European dimension to the field of R&D in the food industry** and it is highly relevant for both European and non-European students who wish to contribute to the development of innovative sustainable and healthy food products. **The originality of this FIPDes programme lies in its integrated approach**, covering all aspects of food production from raw materials to the packaged product, and including the technical, business and theoretical knowledge involved in food innovation.

Proposed by:



Agricultures  
& forest



Food



Animal health  
& welfare



Regions  
& environment



Clermont

### Erasmus Mundus **MSc in Food identity**

**Partner HEIs:** École Supérieure d'Agricultures Angers and Isara Lyon (France), Università Cattolica Del Sacro Cuore - Piacenza (Italy), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca (Romania), Universidad de León and NEA, Escuela Universitaria de Ingeniería Agrícola (Spain).

#### > DESCRIPTION

Beyond the typical food products, similar groups of food products exist in European countries, each distinct to its country of origin, and called by different names: local food products, regional food products, traditional food products or terroir food products. The term typical food products will be used to describe all such European food products:

- | **A comprehensive curriculum of the typical food:**  
"from soil and human community to terroir",
- | **Characterisation of the specificity**  
of the typical food products,
- | **Development, appreciation and marketing**  
of typical food products in the global market.

Proposed by:  VetAgro Sup





Montpellier

## Erasmus Mundus **MSc of viticulture and oenology** (Vinifera)

**Partner HEIs:** Vinifera EuroMaster is organized by a consortium of Universities and Graduate HEIs\* www named "EMaVE Consortium". All these institutes are famous for their research activities and their links with the professionals of the vine and wine sector, in the major producing countries of quality wine in Europe: France, Germany, Italy, Portugal and Spain.

### > DESCRIPTION

**This specialisation trains future wine-growing managers.** The subjects studied will provide in-depth knowledge about the vine and wine, and also winery management. The course is in English and forms part of an Erasmus Mundus program. The second year is carried out in a foreign university.



Rennes

## Erasmus Mundus **MSc in Rural Development** (IMRD)

**Partner HEIs:** Wageningen UR (Netherlands), Universiteit Gent (Belgium), Humboldt-Universität zu Berlin (Germany), Slovak University of Agriculture in Nitra (Slovakia), Università di Pisa (Italy).

### > DESCRIPTION

The IMRD master course programme, is a **high level academic programme aimed at training top students** from all over the world into specialists in integrated rural development, focussed on socio-economic and institutional aspects; not only from the European Union but also from developed, developing and transition countries outside the EU. **The course focuses on agricultural economics and development theories**, through comparing agricultural and rural development policies in an international context. Students will build multidisciplinary knowledge and skills about development, including how agricultural and environmental systems function, scientific methodologies, social sciences, and rural development tools.



Nancy

## Erasmus Mundus **MSc in European Forestry**

**Partner HEIs:** University of Eastern Finland, University of Freiburg (DE), University of Natural Resources and Life Sciences – Vienna (Austria), Transilvania University of Brasov (Romania), University of Lleida (Spain).

### > DESCRIPTION

**It is a two-year interdisciplinary programme** that provides you academic education in the field of sustainable resource management with special emphasis on bioeconomy. MSc EF offers a new approach to the markets in forestry a nature management and it connects the increasing number of forest related issues with European dimension at international as well as national levels.

**The objective of the MSc EF programme** is to educate professionals who have thorough understanding in sustainable forest bioeconomy as well as in European business culture. The curriculum is specifically designed to take into consideration the needs of potential employers and **the graduates are highly appreciated by national and international agencies**, governmental bodies, NGO's, research institutions and timber, paper and pulp enterprises.

**Proposed by:** AgroParisTech

\*Higher Education Institutions

## MASTER: TWO-YEAR PROGRAMMES

Designed for students holding a Bachelor's degree in a relevant field of Agrobiosciences, they are open to English-speaking students worldwide.



Toulouse

### Master **AgroFood Chain** Sustainability and Innovation

**Partner HEIs:** Institut National Polytechnique de Toulouse (INPT).

#### > DESCRIPTION

The programme aims at training professionals and researchers able to study the various sectors of the agricultural and food chain so that they can understand the changes in progress, diagnose the arising problems and provide innovative answers. The syllabus is articulated around the three pillars of agronomy, economics and ecology applied to the food industry. These three core disciplines are not addressed separately but integrated through case studies and multidisciplinary tutored projects. Accordingly, contributions from other so-called "support" disciplines are added such as plant and animal genetics, product quality or marketing in order to offer thorough knowledge of agro-process and food for students around the popular specialties.

**Proposed by:** INP ENSAT



NEW

Dijon

### Master of **Physiological & psychological food choices determinants** (P2Food)

**Partner HEIs:** Université de Bourgogne (France).

#### > DESCRIPTION

P2FOOD aims to train graduates who will be able to deal with the growing challenges in understanding feeding behavior and food consumption. Students will learn basic knowledge on neuronal circuitry and psychological mechanisms linked to food perception, preference, choice, and eating behaviors as well as the research skills necessary to address both practical and research issues.

**Proposed by:** AGRO SUP DIJON



Paris

### European Master **MSc in Food Studies**

**Partner HEIs:** Lund Univer (Sweden),

Wageningen UR (Netherlands), Cork University (Ireland).

#### > DESCRIPTION

The European Master in Food Studies aims to increase the scientific, research and personal skills of the participants, and to enhance their awareness of the international dimensions of the global food industry. Students will graduate with a good awareness of the technological, social, economical and political developments in Europe's most important industrial sector.

**Proposed by:** AgroParisTech

Agricultures  
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Food



Animal health  
& welfare



Regions  
& environment







Montpellier

## International Master of **AgroDesign**

**Partner HEIs:** Université Paris-Saclay (France).

### > DESCRIPTION

Train young scientists in interdisciplinary process analysis and system design to contribute to the creation of productive, healthy and sustainable cropping systems for Mediterranean and tropical regions which are undergoing change due to climatic, resource, biodiversity and food security issues.

Students will learn state of the art methods of systems agronomy and how to integrate up-to-date scientific cross-cutting knowledge on Plant Protection, Ecology, Biology, Ecophysiology, Genetics and Agronomy to design innovative cropping systems.

Proposed by:



**NEW**

Rennes

## International Master **Transitions in environmental and agrifood systems management** (TEAM Actors)

### > DESCRIPTION

This master programme has been built on the basis of a prospective describing the evolution of the professions in environment with many professionals involved. **Several observations have emerged:** the environmental dimension is essential in public decision-making. Climate change and the preservation of resources (biodiversity, water, soil) require adapting the scenarios of development and spatial planning. Several laws (energy transition, biodiversity laws, the Water Framework Directive, etc.) provide an evolving regulatory framework.

**New agricultural models placing the environment at the center of technical practices are emerging.** The productive question of agriculture comes back in public issues via food. Urban public decisions affect rural areas.

**Based on close interactions between the scientific world and the professional world,** it responds to new public demands for a management of resources and territories responding to the major stakes of society in the environmental, agricultural and food fields.

Proposed by:



Nancy

## Master **Forests and their environment**

**Partner HEIs:** Université de Lorraine (France).

### > DESCRIPTION

This master addresses **environmental and management challenges** in temperate forests in the current and future context of local and global environmental changes. **Aimed skills:**

- | **Knowledge and understanding** of the organization and functioning of forest ecosystems,
- | **Ability to analyze** observations and experiments on forest ecosystems using appropriate quantitative tools,
- | **Understanding and development** of modelling approaches to forest ecosystems,
- | **Ability to use major research tools and methods:** identification and formalization of a research issue, literature analysis, oral and written scientific communication, in an English-speaking environment.

Proposed by:



Bordeaux

## International Master of **Business and Science in Vineyard & Winery Management**

### > DESCRIPTION

The international master of Business and Science in Vineyard & Winery Management is **designed to provide knowledge and training needed to manage a wine company or a wine estate in an international context.** Students will have the opportunity to deepen their understanding of specific interest areas including vineyard and winery management, wine industry branch organization and business management.

Proposed by:





NEW

Thailand

## International Master **InterRisks**

**Partner HEIs:** Université Paul Sabatier (France).

### > DESCRIPTION

South East Asia is threatened by rapid environmental changes under the pressure of the economic development and insertion into the global economy. From this perspective, the South East Asia (SEA) region, which is considered as a particularly significant biodiversity hotspot, risks new pathogen emergence, zoonotic emergence and vector-borne disease transmission. Furthermore, economics of the Association of South East Asian Nations (ASEAN) region will considerably increase the mobility of people and livestock across South East Asian countries. This will likely increase pathogen transmission and disease emergence risks. **Transboundary and emergent infectious disease management, calls for better integration between various scientific disciplines:** animal health, public health, social science, engineering, ecological and environmental sciences. In "non-crisis times" people are reluctant to come together and achieve a common understanding because there is no external force to drive them.

**Proposed by:** **envt** école nationale vétérinaire Toulouse



Vietnam

## International Master

## **Water - environment - oceanography**

**Partner HEIs:** University of science and technology of Hanoi (Vietnam).

### > DESCRIPTION

In responding to the huge demand of human resources in finding technological solutions for drinking water and waste water treatment as well as for climate change adaptation in Vietnam, the Master programme "Water-Environment-Oceanography", one of six priorities in USTH training programme, has been created. **Accompanying a solid scientific training, the WEO master programmes will focus on studying the advanced technologies**, which are currently unpopular or untaught in Vietnam, both in the field of water treatment (supply water, wastewater) and natural aquatic environments (modelling, remote sensing, and environmental engineering).

**Proposed by:**  **ENGEES**



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# MASTER: ONE-YEAR PROGRAMMES

Applicants should hold a Bachelor degree and have subsequently validated 2 semesters at Master's level in a relevant field of agrobiosciences.



Paris

## M2 Predictive and integrative animal biology

**Partner schools:** Université Paris-Saclay (France).

### > DESCRIPTION

Animal biology is at the crossroad of opportunities provided by the development of genomics, on the one hand, and on the other hand, societal issues dealing with the role of animals in our societies and the relationship between humans and animals. **The aim of the PRIAM Master course (M2)** is to train students who will become actors able to understand the complexity of animals living in their environment, to adapt them under a moving context, to monitor animal populations and to develop precision livestock farming systems.

**Proposed by:**  



Clermont

## M2 Global quality in European livestock production (GLOQUAL)

**Partner HEIs:** Université de Lorraine (ENSAIA), Bordeaux Sciences Agro, INRA

### > DESCRIPTION

The objective is to train executives to apply and propose multi-criteria evaluation methods to improve the global quality of animal production systems. Students are trained in the **global assessment of animal production systems in Europe.**

**Proposed by:**  VetAgro Sup



Nantes

## M2 From Animal to Man: Analysing and managing health and food risks (MAN-IMAL)

**Partner HEIs:** Université d'Angers, Université de Nantes, École Supérieure d'Agricultures Angers (France).

### > DESCRIPTION

Because in a globalised, industrialised society with an increasing number of stakeholders and regulations, production chains are becoming more and more complex. Based on the "One World, One Health" concept, **the man-imal programme seeks to answer these changes thanks to a global and cross-disciplinary approach** integrating: human health, animal health, environment, food.

**Proposed by:** 



Paris

## M2 Systems & synthetic biology

**Partner HEIs:** Université d'Evry Val d'Essonne,

### > DESCRIPTION

**Systems Biology is the study of biological systems and network behaviours**, and in particular their dynamic aspects, which requires the utilization of mathematical modelling tightly linked to experiment. Synthetic Biology can be defined as the design and construction of new biological parts, devices and systems (that do not already exist in the natural world) or the redesign and fabrication of existing, natural biological systems for useful purposes.

**Its goal is to learn how to engineer and build self-organizing systems** that recapitulate biological functions and show new functions with industrial applications in environment, health care, biomaterials and energy.

**Proposed by:** 





Paris

## M2 Climate, land use, ecosystem services (CLUES)

### > DESCRIPTION

Terrestrial ecosystems are a core component of the climate system and a key provider of services to human societies via their production of biomass for food and fuels or their regulation of environmental resources. As the demand for these services is rapidly growing, these ecosystems have been manipulated and managed to an unprecedented extent, via changes in land occupation and use worldwide, in particular for agricultural and forestry purposes.

Facing up to the current ecological challenges thus requires a careful understanding of ecosystem processes and services to design and implement management strategies that enhance ecosystem services in a changing global environment.

Proposed by:



Paris

## M2 Renewable energy, science and technology (REST)

### > DESCRIPTION

This Master in energy engineering aims to give students real-world technical expertise in strategic renewable energy disciplines, as well as an in-depth understanding of the issues associated with renewable energies and their development, including the short and medium-term technical, technological, geopolitical and environmental challenges.

The programme's main objectives are to: prepare students for careers in renewable energy advanced research and management; train the researchers and engineers who will help to prepare and implement energy strategies and policies for leading manufacturers, innovative start-ups and public organizations.

Proposed by:



NEW

Nancy

## M2 Biorefinery engineering of wood and agro-resources (BioWARE)

Partner HEIs: Université de Lorraine (France).

### > DESCRIPTION

Our planet is facing up the depletion of fossil resources while the overall demand of biomass for food and energy is continuously increasing. For one decade, biomass is considered as an alternative energy source contributing to reduce greenhouse effect. Biomass is also a renewable source of proteins, sugars, and fats, which lead to valuable green chemicals, pharmaceuticals, biosourced materials, i.e. to any bio-wares. Biorefinery engineering consists in designing biomass transformation processes to replace conventional chemical transformation. The master programme offers skills in biorefinery engineering, while accounting for bioeconomy requirements, for sustainability of the agro and wood resources and soil availability.

Proposed by:



Bordeaux

## M2 Management des entreprises vitivinicoles

Partner HEIs: Université de Bordeaux (France).

### > DESCRIPTION

The track "Management des entreprises vitivinicoles" is designed to provide knowledge and training needed to manage a wine company or a wine estate in an international context. Students have the opportunity to deepen their understanding of specific interest areas including vineyard and winery management, wine industry branch organization and business management.

Proposed by:



Agricultures  
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Food



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Regions  
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Strasbourg

## M2 Computational engineering

**Partner HEIs:** Université de Strasbourg (France).

### > DESCRIPTION

Numerical modelling for industrial applications is a rapidly growing discipline, which brings together the power of computers and the biological, chemical and physical sciences. Computer based simulations and their related visualisations play a key role in industrial applications, environmental or biomechanical investigations. **This master aims to train students with research and Development skills through projects**, which will have industrial and/or academic significance.

**Proposed by:**  ENGEES



Paris

## M2 Decision Support and Business Intelligence (DSBI)

**Partner HEIs:** CentraleSupélec, Université Paris-Sud (France).

### > DESCRIPTION

This specialization focuses on models and technologies related to Business Intelligence and decision-support systems. With a strong focus on unstructured data and semantics, this specialization covers topics induced by the evolution towards next-generation Business Intelligence.

**This specialization covers theoretical foundations** such as advanced data mining as well as new models for Business Intelligence and decision support such as ontologies, graphs models and mining and models for decision-making in uncertain situations.

**Proposed by:**  AgroParisTech

université  
PARIS-SACLAY



Montpellier

## International Executive Master in water utility management (MS OpT)

### > DESCRIPTION

The Executive Master programmes OpT is designed for established professional of water and/or sanitation utilities and prepares for a management position. The objectives are to train leaders and reinforce the skills of executive managers in water and sanitation urban utilities in developing and transitional countries. The programme takes place over a period of 14 months, with a form of occupational training.

**Throughout the course, each trainee will work on building a strategic action plan** aiming at improving the quality of a water and/or sanitation service in a city of his/her country as a whole.

**Proposed by:**  AgroParisTech



# PhD

The doctoral studies (or PhD) consist in writing a PhD thesis which results from the achievement of a research project. During 3 years the student is supervised by a thesis mentor associated to a doctoral school and work on an original subject within one of our Research Labs.

[en.agreenium.fr/research-laboratories](http://en.agreenium.fr/research-laboratories)

**PhD candidates should hold a Master's degree or equivalent.**

Admission is based on academic performances, financial plan and requires a hosting laboratory with a thesis supervisor.

**Among all the Agreenium members, AgroParisTech, AgroCampusOuest, Montpellier SupAgro, and Oniris are the institutions delivering doctoral degrees.** These four institutions deliver up to 200 doctoral degrees a year. The Université de Lorraine (French public university) and INP Toulouse are accredited to confer the doctoral degree in the respective study fields of ENSAIA and ENSTIB Schools, and ENSAT Schools. Agreenium members are thus co-accredited under **15 disciplinary or thematic doctoral schools.**



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# BACHELOR

Designed for students having completed 2 years of undergraduate studies (equivalent to French "BAC + 2" Level or U.S. associate degree of 2 years) in a relevant field of Agrobiosciences, they are open to English-speaking students worldwide.



**NEW**

**Bordeaux**

Bachelor's degree  
in **Viticulture and Oenology**

## > DESCRIPTION

From technical knowledge to professional practices, students will get a broader perspective in viticulture and oenology, with particular focus on sensory analysis. Our Bachelor's degree in Viticulture and Enology will allow graduates to:

- | **Become a skilled professional** in the global wine industry
- | **Participate in projects** related to international viticulture and winemaking techniques
- | **Provide technical advice and support** to other wine industry professionals
- | **Acquire specific knowledge** in sensory analysis

Proposed by:





# NON-GRADUATE PROGRAMMES



## EXCHANGE SEMESTER AND OTHER PROGRAMMES



Rennes

**Agroecology programme**  
for 1 semester

### > DESCRIPTION

This programme is based on a transdisciplinary approach of **agroecosystems** with a highlight on agronomical, ecological, environmental, economic and social issues.

Proposed by:



Rennes

Spring semester  
**Agronomy and territories**

### > DESCRIPTION

The aim of this semester is to **train and inspire future scientific leaders** to meet the agricultural challenges of the 21st century.

Proposed by:



## ON-LINE PROGRAMMES

**NEW**

**Bioprocess Engineering Online**  
**University degree**

### > DESCRIPTION

This programme offers excellent training designed to **prepare learners for industrialization methods** in the food and/or biotechnology sector, by acquiring knowledge and skills in basic disciplines (transfer and fluid mechanics) by mastering the design and dimensioning of unit operations and then extrapolating industrial operations, coupled with their technical and economic evaluation.

Proposed by:



**NEW**

**Vine & Wine**  
**MOOC**

### > DESCRIPTION

This MOOC will initiate you to the **scientific and technological bases which define the framework in which wine professionals work**, from the vine to the glass. This international online course presents you with 4 key modules on wine-making and sales: the biology of the vine, viticultural practices, oenology and the wine economy.

Proposed by:



Agricultures  
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Food



Animal health  
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Regions  
& environment



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**NEW**

## **Agroecology,** an introduction **MOOC**

### **> DESCRIPTION**

Is it true that agroecology is **THE** solution to the challenges that agriculture faces today-feeding a growing population while conserving natural resources in a world where uncertainties about climate change, biodiversity, energy etc. keep intensifying? Is agroecology a mere fad, or a significant scientific, technical and political revolution?

This course aims at helping you **discover what agroecology is**, through the complexity of the various approaches that have emerged over the years and in various regions of the world, and through the ways they can be implemented in the fields, and studied, as agricultural practices.

Proposed by:  



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**NEW**

## **Exploratory Multivariate** Data Analysis **MOOC**

### **> DESCRIPTION**

Exploratory multivariate data analysis is studied and taught in a French-way since a long time in France. **This course focuses on four essential and basic methods, those with the largest potential in terms of applications:** principal component analysis (PCA) when variables are quantitative, correspondence analysis (CA) and multiple correspondence analysis (MCA) when variables are categorical and clustering.

Proposed by:



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**NEW**

## **NECTAR: Nematodes,** **Taxonomy, Arthropods** **MOOC**

### **> DESCRIPTION**

**Classification of arthropods and nematodes; collection and trapping methods; morphological and molecular identification methods;** application of these integrative concepts for agroecosystem management through case studies.

Proposed by:



To find a training course on line,  
consult the **Agreenium'** training database:

**[en.agreenium.fr/trouver](https://en.agreenium.fr/trouver)**







**Agreenium, the French Agricultural, Veterinary and Forestry Institute** is a public cooperation institute created in 2015 to continue the work of the Agreenium consortium (2009-2015), from which it took its name. Agreenium develops the link between **education, research and innovation and pools actions** involving its members around three areas: international, education and digital.



#### A collective strenght

A remarkable network, which shares scientific support practices and the ambition to act together internationally

#### Agreenium members

**15** "grandes écoles" developing outstanding training programmes.

**4** global research institutes that bring together the best of French expertise and research.

**Agreenium: Institut agronomique vétérinaire et forestier de France**  
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[www.agreenium.fr](http://www.agreenium.fr)



**Partners by agreement:** École supérieure du bois, Université d'Orléans, Université de Tours, Université de Nice-Sophia Antipolis, Université Côte d'Azur.