

PRACTICAL INFORMATION

LOCATION

Paris

AgroParisTech

CONTACT

Secretary

• m2.clues@agroparistech.fr

Responsibles

- Erwan Personne, erwan.personne@agroparistech.fr
- Benoît Gabrielle, benoit.gabrielle@agroparistech.fr
- Sébastien Saint-Jean, sebastien.saint-jean@agroparistech.fr

NOTES...

www.universite-paris-saclay.fr/en

Université Paris-Saclay Partners



Other partner

- Université Pierre et Marie Curie Paris VI

Conception graphique : Université Paris-Sud - Décembre

université
PARIS-SACLAY

SCHOOL

BIODIVERSITÉ, AGRICULTURE
ET ALIMENTATION, SOCIÉTÉ,
ENVIRONNEMENT

MASTER

Agrosiences,
Environnement, Terri-
toires, Paysage, Forêt

Agrosiences, Environnement, Territoires, Paysage, Forêts

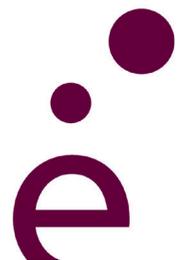
PARCOURS : Climate, Land-Use and Ecosystem Services (CLUES)



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. The economic sectors targeted include agriculture and forestry but also the agri-food sector, energy and the bio-economy in general, while the programme will also be relevant to policy-making in the area of environmental regulation and natural resources management, from local to global scales.

PREREQUISITES

Courses will be taught in english (with a B2 proficiency as a pre-requisite). Applicants should hold a Bachelor degree and have subsequently validated 2 semesters at Master's level.



PEDAGOGICAL OBJECTIVES

The overarching objective is to provide the scientific knowledge, know-how and skills necessary to understand the functioning of terrestrial ecosystems in response to major drivers such as climate change, land-use change patterns and ecosystem management technologies. Graduates students will be possess in-depth knowledge of biosphere-climate interactions, environmental physics, acquire methods to assess ecosystem services, and be fully aware of the panel of technological options available in terms of land-use planning management to promote the sustainable development in rural and semi-urban areas. Courses will promote integrated approaches through a multi-disciplinary curriculum combining natural sciences, social and economic sciences and advanced courses in data management, analysis and modelling. The capacities of students to synthesize and integrate information from a range of sources and knowledge from these different disciplines will be fostered through the development of projects in case-study areas, based on state-of-the-art methodologies to involve local stakeholders and proponents.

PERSPECTIVES

Graduates will be fully equipped to gain positions in research & development bodies focusing on climate and environmental issues at local to global scales. Opportunities are also expected with local authorities and national agencies overseeing natural resources and the environment in general (eg ADEME in France, or Water Boards). The expertise and international background of MSc graduates will be relevant to international agencies or institutes (such as the CGIAR), private companies providing environmental services or consultancies and agricultural and forestry sectors.

RESEARCH

The CLUES programme builds on a set of internationally-reknown laboratories, professors and high-profile experts (from international organizations or overseas universities, and broaden the exposure of students to the research area) involved in the following areas: Climate-biosphere interactions at regional to global scales, the functional ecology of agro-ecosystems, global agronomy, and the modelling of land-use changes.

Among others, these laboratories make regular contributions to the IPCC reports or to other international assessment exercises.

LABORATORIES

EcoSys Joint Research Unit (INRA/AgroParisTech),
Agronomy Joint Research Unit (INRA/AgroParisTech),
Laboratoire des Sciences du Climat de l'Environnement (LSCE ; UVSQ/
CNRS/CEA) CIRED (CIRAD/CNRS/AgroParisTech)
Institut d'écologie et des sciences de l'environnement de Paris (IEES ;
UPMC/CNRS/IRD) UR HBAN, Antony (IRSTEA)

SOCIOECONOMIC PARTNERSHIP

Partnerships are currently being sought from private companies in the following sectors:
agriculture, the agro-food industry, audit and consultancy firms in relation to environmental and sustainable development issues.
Public administration (municipalities, regional authorities, national governments) are also a possible target in terms of job market for the graduates, as are international organizations (FAO, the World Bank, or international research bodies such as the Agricultural Research Partnership CGIAR).
Representatives of the above companies, administrations or organizations will contribute seminars and opportunities for internships.