Université Paris-Saclay
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M2 Soil management and ecosystem services

Master's degree
Specialisations Agrosciences, Environment, Territory, Landscape, Forest | Earth and Planetary Sciences, Environment (STePE)
Enrolment type
Formation initiale
Formation continue
Language(s) of instruction
English
French

The formation **Soil and Ecosystem Services Management** trains highly qualified professionals in the field of soils. It combines in-depth knowledge of the multiples dimensions of soils and their integration into applied courses, including fieldwork. Upon completion of the program, you will be able to assess the condition, functions and services of soils and propose innovative solutions for soil management and conservation, from the local to the global level.

The first semester consists of 10 compulsory modules and 2 optional modules designed to impart a wide range of high-level fundamental knowledge and applied skills relating to soils. It is structured around three types of module:

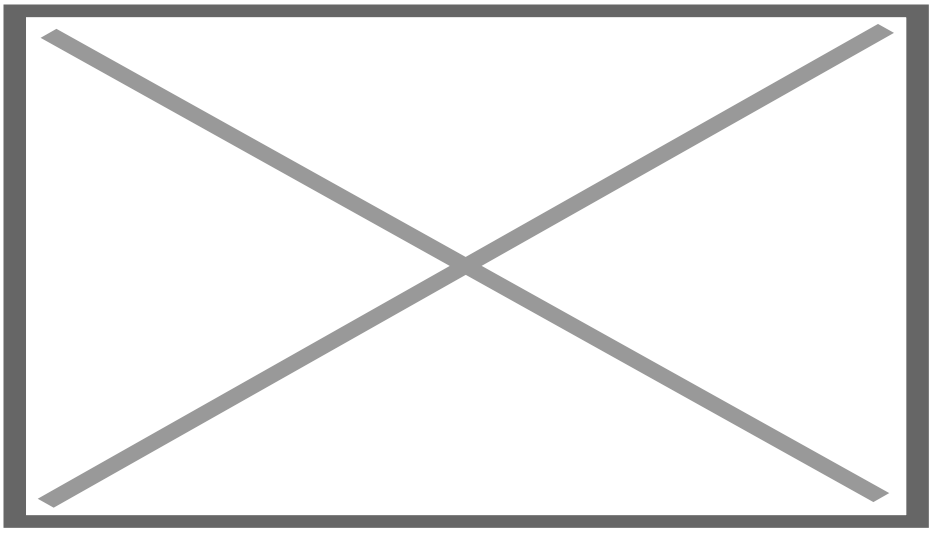
The **disciplinary** modules deal with soils, including through fieldwork, from diverse and complementary naturalistic, biological, physical, chemical, or socio-legal perspectives;

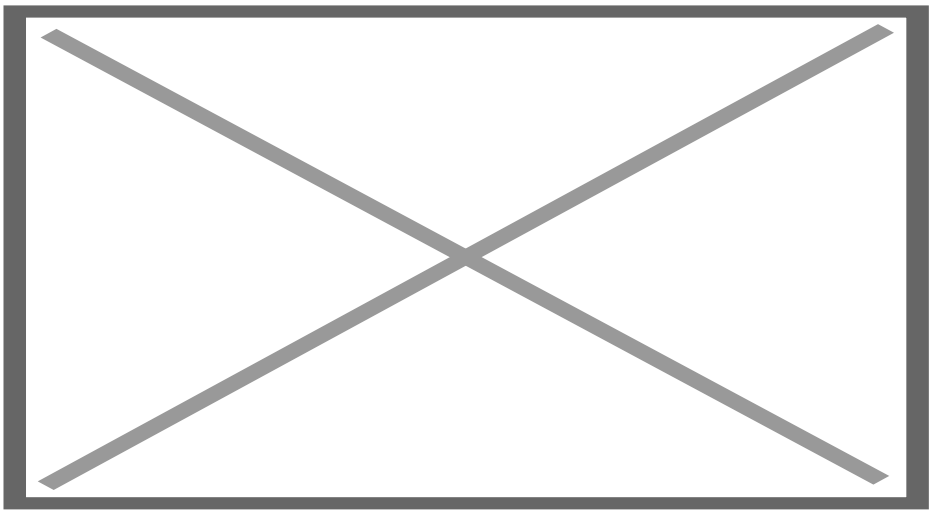
The **tool** modules focus on tools and methodologies for analyzing and modeling soils in space and time;

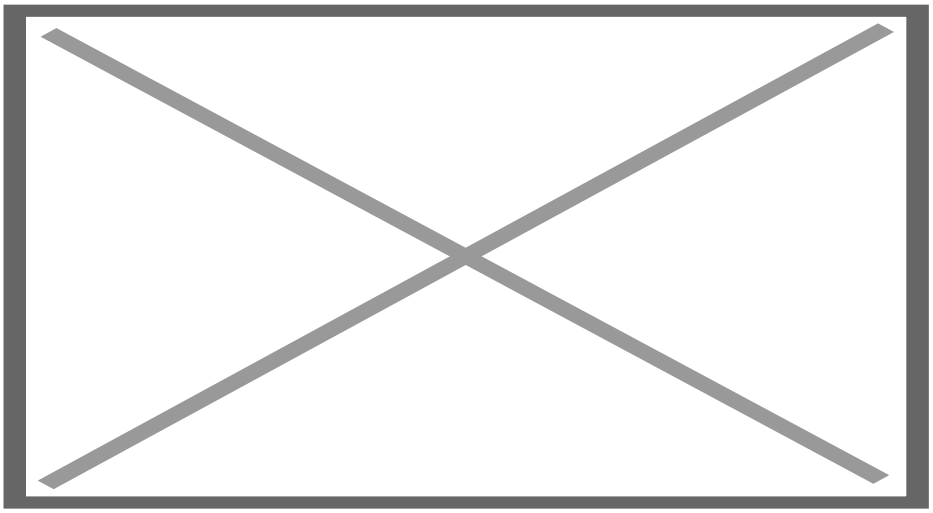
The **integrative** modules build on the knowledge and skills acquired to address major environmental or agricultural issues related to soils (management of polluted soils, management of erosion, adaptation to climate change, etc.).

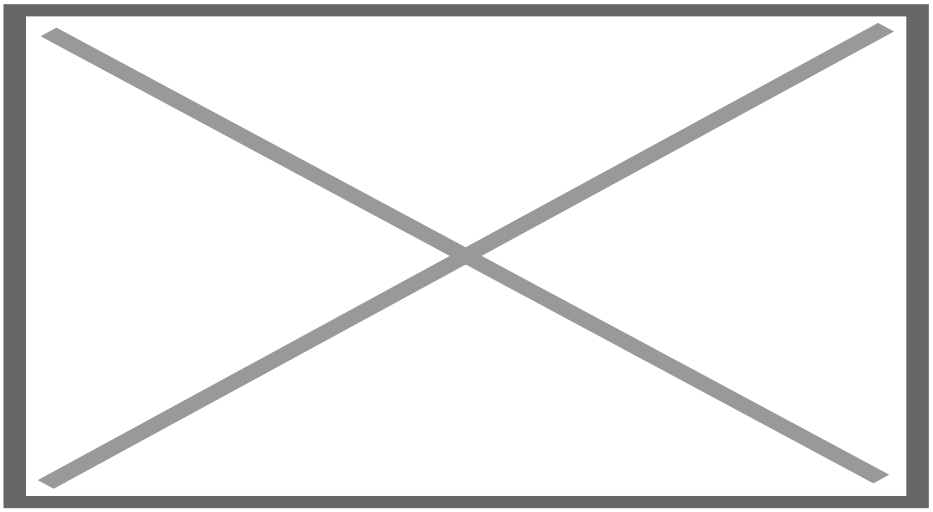
The second semester is devoted to a long-term internship (5 to 6 months) in research or research and development carried out in a public or private organisation in France or abroad. It is combined with a bibliographic synthesis (in English).

Télécharger la fiche détaillée
Apply Now









Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

Describe a soil profile based on observations made using an auger or soil pit;

Collect soil samples, define an anlytical or experimental program and interpret the results obtained in a relevant manner, taking into account the objectives of the study;

Explain soil formation based on the pedogenetic factors and processes that control it;

Represent, analyse and interpret the spatial variability of soils in a given area (toposequence, watershed, region, globe);

Assess the biological, chemical or physical functionning of soil based on its characteristics and estimate the functions and services it provides in a given socio-ecosystem.

Objectives

The **Soil and Ecosystem Services Management** programme aims to prepare future graduates to design and manage research or research and development projects related to soils or the ‘soil’ dimension of multi-purpose projects, from the local to the global level. These projects may focus not only on agricultural or forestry production issues, but also on issues related to all the functions performed by soils in relation to socio-ecosystems (regulation of water quantity and quality, regulation of contaminants, carbon storage and

greenhouse gas regulation, nutrient supply, support for biodiversity, etc.). The aim will therefore be to train professionals with an in-depth and comprehensive knowledge of soils, their diversity, their spatial organisation at different scales, their biological, physical and chemical functioning, as well as the main actors, legislation and public policies focused on soils, in order to bring soil issues for the benefit of their many users.

Upon completion of the programme, graduates will be able to:

- Describe and name a soil according to different national or international typologies;
- Identify the factors and processes involved in soil formation and evolution (pedogenesis);
- Characterise and interpret, for the benefit of multiple soil users: the diversity, properties, functions and services of soils, as well as the threats affecting them from the (micro)local to the global level;
- Propose and/or implement soil management, conservation, restoration or creation strategies tailored to the objectives of decision-makers and soil users.

Débouchés

Career prospects

Research officer environment
Agricultural services, environment or sustainable development, local authority planning or government services
Research professions

Further Study Opportunities

PhD

Admission

Admission Route

Life Sciences
Earth Sciences
Life and Earth Sciences

Capacity

Available Places

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Target Audience and Entry Requirements

The **Soil and Ecosystem Services Management** programme is open to students who have completed a Master's 1 degree in Earth Sciences, Environmental Sciences, Ecology, Agronomy or Forestry, particularly those with a specialisation in ‘Earth and Planetary Sciences, Environment’ or ‘Agrosciences, Environment, Territory, Landscape, Forest’.

Students holding a Master's 1 degree in related fields (geography, planning and development, political, economic or social sciences, etc.) may also be admitted on a case-by-case basis, provided that their change of field is carefully considered and justified by a project directly and specifically related to soils.

Students must have a minimum knowledge of soil science, equivalent to a module of approximately 30 hours in the timetable.

Période(s) de candidature

Inception Platform

From 15/02/2026 to 15/06/2026

Supporting documents

Compulsory supporting documents

Motivation letter.

All transcripts of the years / semesters validated since the high school diploma at the date of application.

Curriculum Vitae.

Additional supporting documents

Referring contact information (compulsory for non-international applicants).

Certificate of French (compulsory for non-French speakers).

Detailed description and hourly volume of courses taken since the beginning of the university program.

VAP file (obligatory for all persons requesting a valuation of the assets to enter the diploma).

Document indicating the list of local M2 choices available here : https://urlz.fr/i3Lo.

Supporting documents :
- Residence permit stating the country of residence of the first country
- Or receipt of request stating the country of first asylum
- Or document from the UNHCR granting refugee status
- Or receipt of refugee status request delivered in France
- Or residence permit stating the refugee status delivered in France
- Or document stating subsidiary protection in France or abroad
- Or document stating temporary protection in France or abroad.

Programme

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Ruissellement et érosion des sols : de la connaissance des mécanismes à la gestion in situ	2	Semestre 1	15	6					
Charger le détail									
Gestion et valorisation agronomique des produits résiduaires organiques (PRO)	2	Semestre 1	13.5	10.5					
Charger le détail									
Contaminants et dépollution des sols ?	2	Semestre 1	18	0					
Charger le détail									
Understanding and managing soil organic matter for ecosystem services delivery	2	Semestre 1	17.5	8.5					
Charger le détail									
UE libre Catalogue S1	2.5	Semestre 1							

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Transferts dans les sols et la ZNS	3	Semestre 1							
Charger le détail									
Modélisation des processus dans les sols	2	Semestre 1	3	16.5					
Charger le détail									
Humanités pédologiques. Les sols entre sciences et politiques	3	Semestre 1	15	15					
Charger le détail									
Physicochimie des sols	3	Semestre 1	13.5	10.5					
Charger le détail									
Quantifying soil services: methods, tools and challenges	3	Semester 1	15	6					
Charger le détail									
Les sols dans le temps et l'espace	3	Semestre 1	21	9					
Charger le détail									
Géomatique pour les sols	3	Semestre 1	9	21					
Charger le détail									
Ecologie et biogéochimie des sols	3	Semestre 1	16.5	7.5					
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Pédologie appliquée	3	Semestre 1	9	18					

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distanc learni cours
Mise à niveau et terrain	0	Semestre 1	12	33					

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	di le c
Stage de fin d'études - parcours GSSE	27	Semestre 2							

Charger le détail

Bibliographic study related to the internship project	3	Semester 2	2	1					

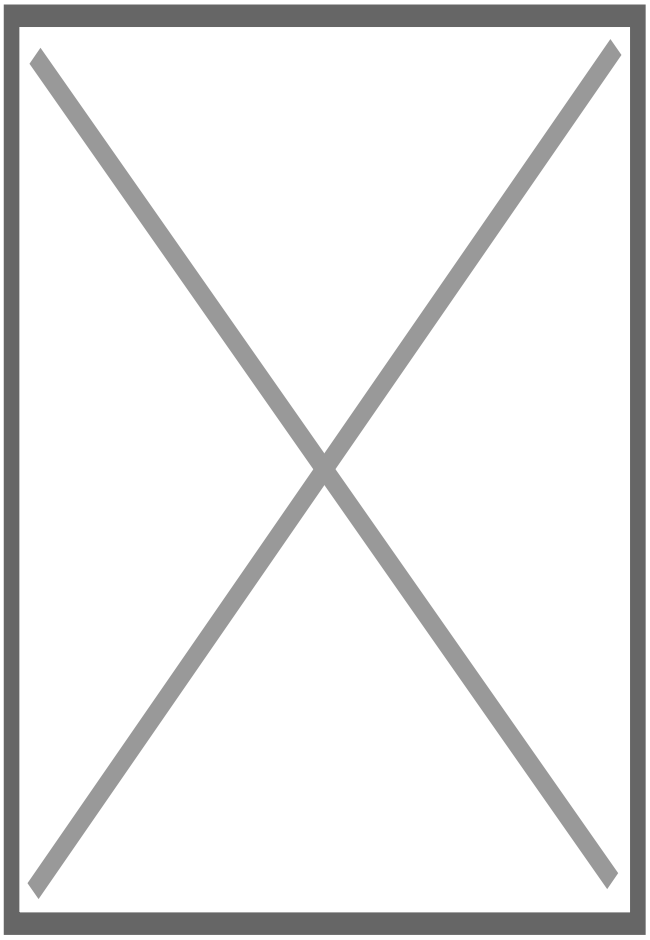
Charger le détail

Teaching Location(s)

PALAISEAU

Training campus

Javascript est requis pour visualiser cette carte.



Saclay Corbeville

Saclay / Palaiseau
Bus 4606, 4627, 5154, 9105, 9108
RER B Palaiseau, Palaiseau villebon ou Lozère
Voir
Student restaurant (CROUS)
Student residence
Sports facilities

Contact

- **Cecile QUANTIN**

  Enseignante-chercheuse
- **Joël MICHELIN**

  AgroParisTech
- **David MONTAGNE**

  AgroParisTech

http://www.universite-paris-saclay.fr/formation/master/agrosciences-environnement-territoires-paysage-foret/m2-gestion-des-sols-et-services-ecosystemiques