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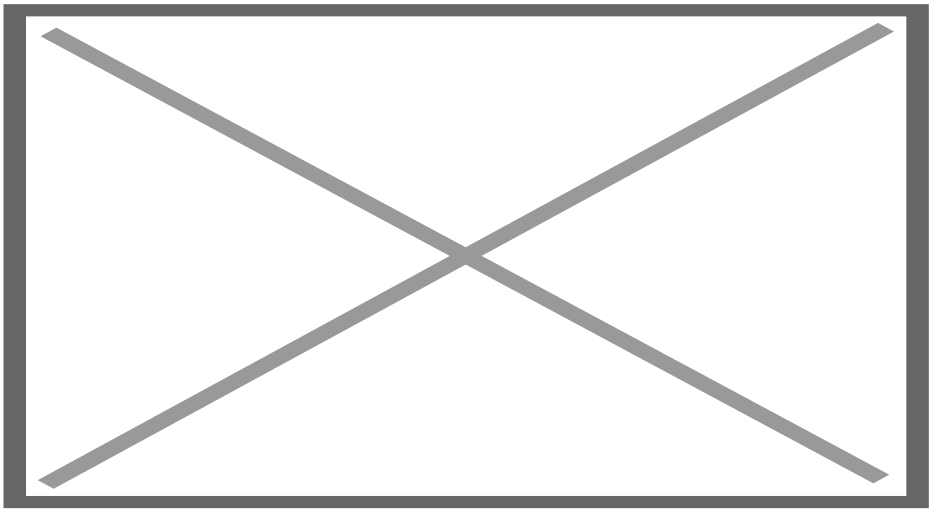
M1 Microbiology - Work-study programme - Orsay campus

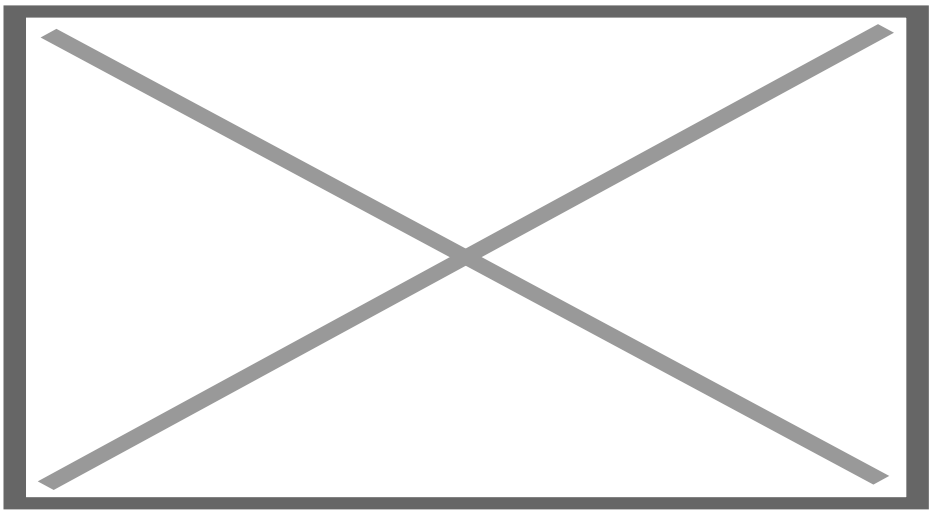
Master's degree
Specialisation Microbiologie
Enrolment type
Contrat de professionnalisation
Formation en apprentissage
Language(s) of instruction
English
French

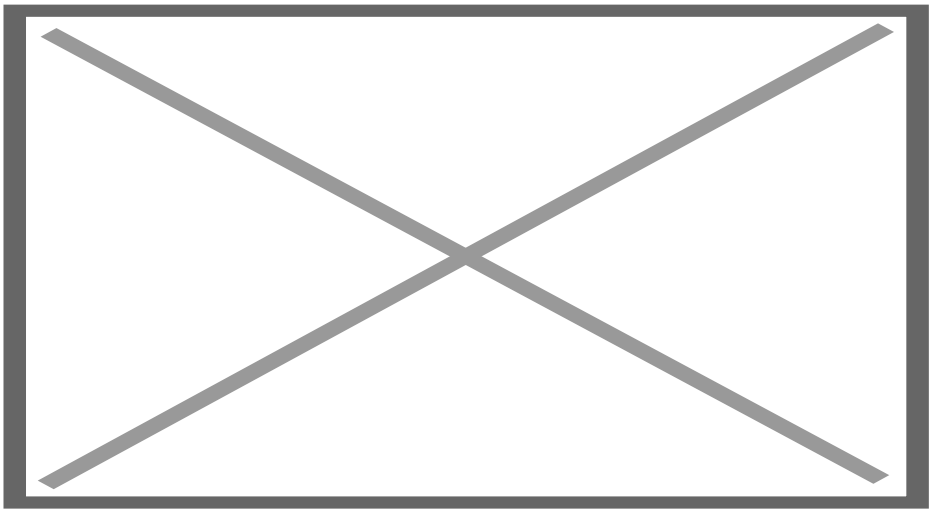
The 1st year Master's work-study programme in Microbiology is offered only to apprentices with a 24-month contract. The 1st year Master's year combines courses and immersion in a company, prior to the 2nd year Master's in Microbiology and Biological Engineering. The curriculum combines scientific specialisation and practical applications, providing sought-after expertise in microbiology and a springboard to careers in industry, biotechnology and research.

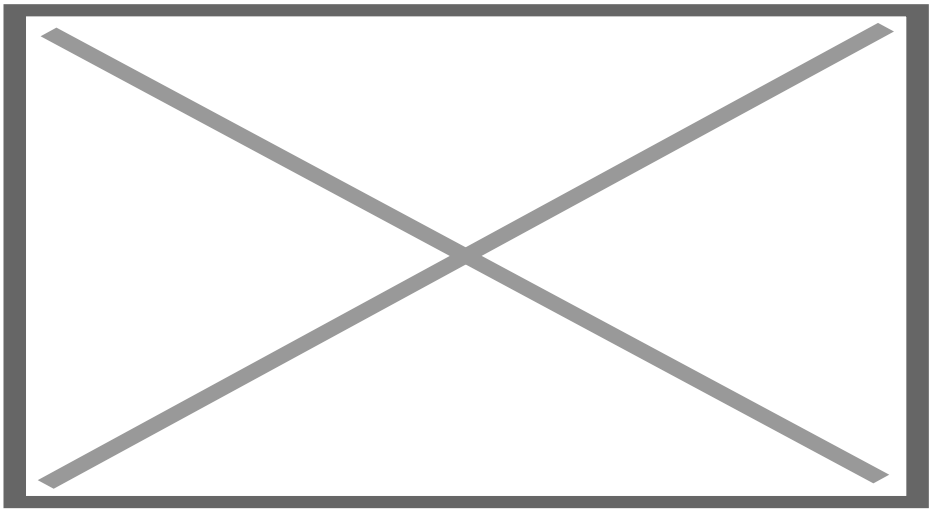
Le Master 1 Microbiologie s’organise autour de quatre blocs de connaissances et compétences complémentaires :
Le Socle Méthodes et Fondamentaux pour l’Exploration du Vivant (12.5 ECTS) (biologie cellulaire et moléculaire, biochimie, signalisation, génomique) permet d’asseoir les bases scientifiques et méthodologiques pour aborder tous les domaines actuels de la Biologie.
Le bloc Majeur en Microbiologie (17,5 ECTS) donne sa coloration au parcours et permet un renforcement des connaissances dans ce domaine scientifique.
L’atelier Plateforme Biosciences (5 ECTS), immersion de deux semaines dans une structure de prestation de service.
Le bloc Immersion Professionnelle (25 ECTS), correspondant à l'alternance et à un projet professionnel d’apprentissage (PPA) sur une analyse contextuelle élargie de la mission.

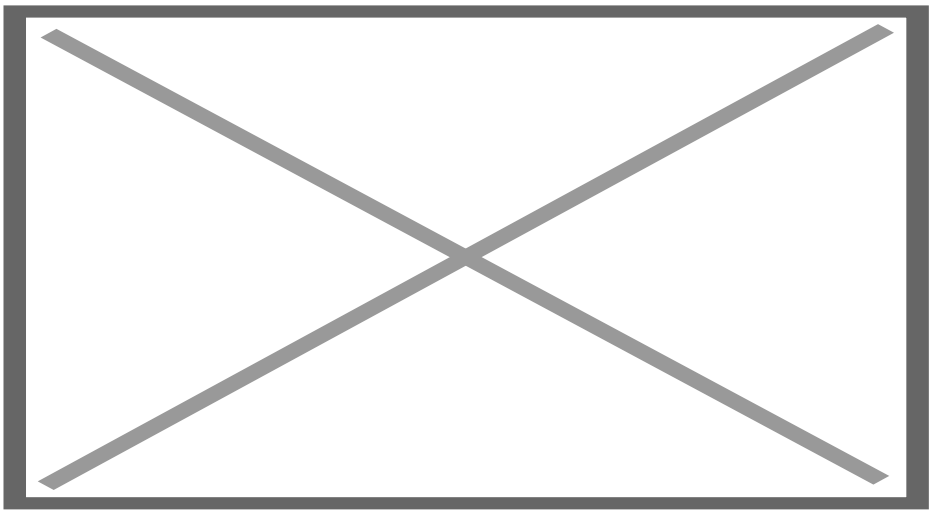
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Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

Competency 1: Scientific Approach.** Take a scientific approach, develop innovative ideas and produce new knowledge. **Competency 2: Expertise, critical thinking and self-training.** Acquire highly specialised disciplinary knowledge and methodologies in one field and at the interface of several fields of work (complex interdisciplinarity) **Competency 3: Scientific communication.** Extract and scrutinise relevant information from scientific documents or lectures in English. ** Competency 4: Professional soft skills.** Analyse and adapt actions to a professional context

Objectives

The work-study programme in the Microbiology Master's track: a springboard to professional careers in Microbiology. The Microbiology track addresses the major scientific, technological and professional issues related to microbiology. The work-study route is specifically designed to combine high-level university teaching with immersion in the workplace. This course prepares apprentices to become future managers, capable of meeting current and future challenges in the Microbiology sector. Through 4 blocks of knowledge and competencies, the 1st year Master's work-study programme offers training through and for research, combined with a specialisation in microbiology: - The block Methods and Fundamentals for the Exploration of Living Organisms (12.5 ECTS) - The block Major in Microbiology (17.5 ECTS) - The workshop Biosciences Platform (5 ECTS) - The block Professional Immersion (25 ECTS) This dual priority combines the acquisition of a solid scientific foundation, the possibility of individualising your course through a wide range of TUs, a 2-week immersion on a platform to discover technological installations dedicated to research, and a 6-month training period in a company. The block Professional Immersion includes drafting a dissertation, or 'Projet Professionnel d'Apprentissage', including a broader contextual analysis of the work-study programme (societal issues, sustainable development, economics or ecology) before a second dissertation in which you describe your project realised in a company. This approach enables you to work on the cross-disciplinary competencies essential to the professions of tomorrow: experimental and/or decision-making autonomy, teamwork, project management, adaptability and innovative spirit. The course is original thanks to the work-study approach, a major advantage that puts you at the heart of the professional world from the very start of the curriculum. Thanks to the alternating periods at university and in a company, you will be able to immediately put into practice the knowledge acquired on the course, and get acquainted with the constraints and codes of the professional world. This course will enable you to gain significant experience that can be put to good use on the job market, while benefiting from the dual support of your university tutor and your work-study supervisor. Your studies in 2nd year Master's Microbiology and Biological Engineering will prepare you for careers in diverse sectors including: - Agri-food (fermentations, quality control, food safety, innovation in processing) - Health (microbiological diagnostics, prevention and control of infectious risks, studies on microbiota and their impact on human health) - Environment (microbial ecology, environmental quality monitoring, biotechnologies for depollution or resource recovery) - Biotechnology industry (bio-production, development of microbial processes, industrial valorisation of micro-organisms) - Business and management (project management, scientific communication, marketing and market research applied to life sciences)

Débouchés

Career prospects

Research & Development Engineer
Research and Innovation Manager
Research or Design Engineer

Further Study Opportunities

Master of Microbiology
2nd year Master of Microbiology and Bioengineering

Admission

Admission Route

Life Sciences
Life and Earth Sciences

Capacity

Available Places

12

Target Audience and Entry Requirements

Undergraduate degree in Life Sciences or Life and Earth Sciences

Période(s) de candidature

Inception Platform

From 15/01/2026 to 16/03/2026

From 19/06/2026 to 25/06/2026

MonMaster Platform

From February 17th to March 16th, 2026

To find out which platform you should apply through, please see the Masters' applications and enrolment page.

Supporting documents

Compulsory supporting documents

Motivation letter.

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

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

Selection sheet for continuation in M2 to download on this web page.

Curriculum Vitae.

Proposal form for an individual pedagogical contract, to be built from https://master-biologie-sante.eu/parcours/index.php.

Completion sheet in M2 completed, to download on the website https://www.universite-paris-saclay.fr/formation/master/biologie-sante.

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

Additional supporting documents

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

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/practica class
Groupe Socle - Anglais S1								
Anglais Scientifique Santé Charger le détail	2.5	Annualisé	12.5	12.5				
English for Sciences ORSAY Charger le détail	2.5	Semester 1		25				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practica class
Anglais S1 UEVE	2.5	Annualisé		23				
Charger le détail								
Anglais S1 UVSQ	2.5	Semestre 1						
Charger le détail								
Intercultural Communication Project EUGLOH	2.5	Semester 1	24					
Charger le détail								
Anglais scientifique ENS	2.5	Semestre 1						
Charger le détail								
BIOMEX								
BIOMécanismes et EXploration multi-échelle (BIOMEX)	10	Semester 1	31	56	22			
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	di le
Microbiologie 2 (MB2)									
Virologie fondamentale (VFV)	5	Semestre 2	35	8					
Charger le détail									
Parasitologie (études des interactions durables)	2.5	Semestre 2	5		18				
Charger le détail									
Microbiologie appliquée	5	Semestre 2	30						
Charger le détail									
Integrative microbiology	2.5	Semestre 2	10	10					

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	di
Charger le détail									
Génétique et physiologie bactériennes	5	Semestre 2	25	21					
Charger le détail									
Nutrition, microbiote et sécurité sanitaire	2.5	Semestre 2	19.5	2					
Charger le détail									
Adapt or disappear: missions in virology	2.5	Semester 2	14	9					
Charger le détail									
Principes et applications de la qualité	2.5	Semestre 2	6	17					
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dist lear co
Plateformes Biosciences	5	Semester 2	10	30	30				
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Projet Personnel d'Apprentissage (PPA)	7.5	Semester 2	1	1.5				
Charger le détail								
Formation en entreprise	20	Annualisé		2				
Charger le détail								

Teaching Location(s)

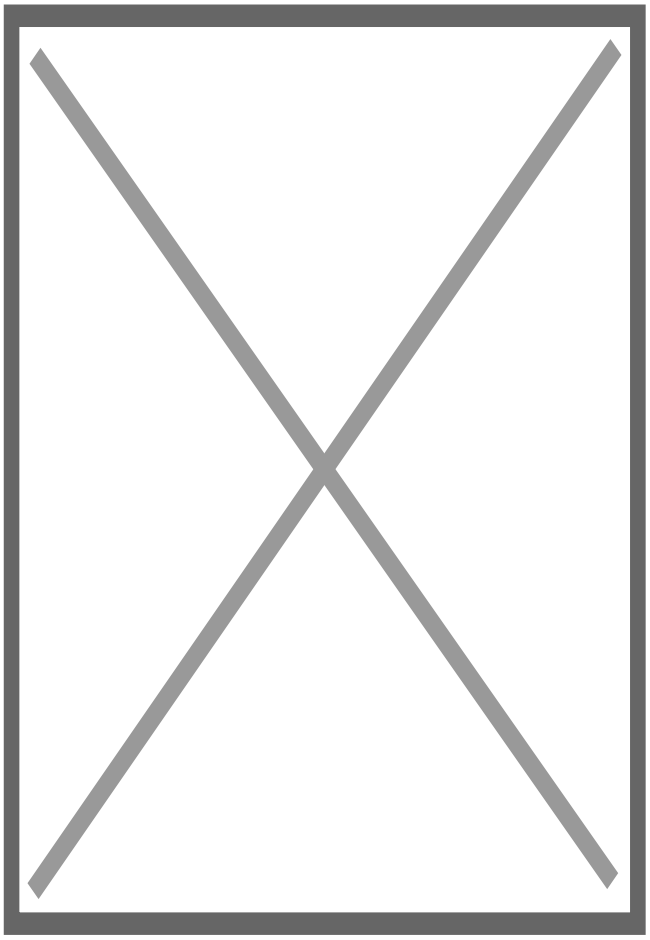
ORSAY

Academic Partner(s)

plus de 90 laboratoires de recherche en microbiologie affiliés à la GS LSH. Les enseignants-chercheurs du master sont rattachés à des organismes nationaux de recherche tels que :- Le CNRS (Institut de Chimie des Substances Naturelles (ICSN) et Institut de Biologie Intégrative de la Cellule (I2BC) à Gif sur Yvette)- Le CEA (plateau de Saclay, Institut Frédéric Joliot),- L'INRAE (départements MICALIS (Jouy-en-Josas) et SAYFOOD (plateau de Saclay)), - L'INSERM (bât. Henry Moissan à Orsay)Ainsi que, de manière plus ponctuelle, à des institutions comme l'ANSES (Maisons-Alfort), l'Institut de Recherche Biomédicale des Armées de la DGA (IRBA à Brétigny-sur-Orge), l'Institut Curie (Orsay) ou l'Institut Pasteur (Paris)

Training campus

Javascript est requis pour visualiser cette carte.



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RER B Le guichet
Voir
Student restaurant (CROUS)
Library
Sports facilities
Student residence

Contact

- **Karine BLONDEAU**
- **Celine FABRET**

http://www.universite-paris-saclay.fr/formation/master/microbiologie/m1-microbiologie-apprentissage-site-orsay