OBJECTIVES

The Master ‘Chemical Frontiers of Living Matter’ aims at training highly motivated students interested in interrogating quantitatively and comprehensively biological systems at the molecular, cellular and network levels using various experimental and theoretical approaches.

It proposes high quality core courses in chemistry and biology, and a broad range of specialized courses covering various topics at the chemistry/biology interface. The formation allows students to develop their creativity through various research projects and internships, and to learn the latest discoveries and innovations at the chemical frontiers of living matter through privileged interactions with PSL faculty members.

CAREER OPPORTUNITIES

This Master in Chemistry and Life Sciences leads to a large number of opportunities, including:

— Academic research (PhD, postdocs)
— Private sector research, development and production
— Medical research
— Innovation and entrepreneurship
— Scientific patenting
— Consulting
Master 1

Semester 1 (30 ECTS)
— Current topics and future challenges at the chemical frontiers of living matter
— ‘Chemical frontiers of living matter’ seminars
— n courses to be chosen

Semester 2 (30 ECTS)
A 5-month lab internship or two 8-weeks lab internships complemented with academic courses.

Master 2

Semester 1 (30 ECTS)
— Research design and project conception
— ‘Chemical frontiers of living matter’ seminars
— n courses to be chosen

Semester 2 (30 ECTS)
Master thesis (5 months).

COURSES

Fundamentals in Chemistry and Biology:
Organic Chemistry, Biophysical Chemistry, Bioinorganic Chemistry, Biochemistry, Sustainability, Biointerfaces, Catalysis & Green Chemistry, Biological Chemistry, Colloid Chemistry, Biophysics, Chemometrics, Biocatalysis, Statistics, Molecular Biology & Genetics, Cell Biology, Genetics, Morphogenesis, Microbiology, Epigenetics, Oncology.

Chemical and Biological Engineering for Biotechnology and Sustainable Chemistry:
Synthetic Biology, System Biology, Chemical Biology, Applied Microbiology, Medicinal Chemistry & Biotechnology, Biomaterial Science, Tissue engineering, Hybrid Materials.

Modeling Approaches and Analytical Tools for the Study of Biological Systems:

LOCATION

Classes will be held in Paris on the campuses of the institutions involved in the program (École normale supérieure, Chimie ParisTech, ESPCI Paris, MINES ParisTech, the Curie Institute, the Pasteur Institute and the Collège de France).

ADMISSIONS

Application process for Master 1 and Master 2:
1/ Online application on PSL portal. Submission deadline for the academic year 2017-18: May 31st, 2017
2/ Interview (for preselected candidates): June 2017

PREREQUISITES
— Master 1: Bachelor degree or equivalent in Chemistry, Biology, Physics, Biochemistry etc.
— Master 2: Master 1 or equivalent in the fields of study above-mentioned.
C1 level in English recommended (Courses taught in English).

To apply
univ-psl.fr/en/master-chemical-frontiers-of-living-matter

Contact
admissions-mastercsdv@univ-psl.fr

Paris Sciences & Lettres
univ-psl.fr

的方式来申请
univ-psl.fr/en/master-chemical-frontiers-of-living-matter

联系
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