MASTER in CHEMISTRY

2nd year of Master degree - Fall semester

The exchange offer corresponds to the first half of the academic year, **fall semester (from September to January).**
Full year exchange possible, please note that the second semester (starting from February) is entirely dedicated to a 5-6 months period of internship (position and stipend to be found by the student during the first semester).

All courses are taught in **English**.
Please note that courses are **place-limited**.
For information on the requirements of each course, please check our website
Courses take place at **various campuses**, all located near the **Panthéon** and the **Luxembourg Garden**:

- **Chimie ParisTech-PSL**, located at: **11 Rue Pierre et Marie Curie, 75005 Paris**
- **ESPCI Paris-PSL**, located at: **10 Rue Vauquelin, 75005 Paris**
- **École Normale Supérieure**, located at: **45 Rue d'Ulm, 75005 Paris and 24 rue Lhomond 75005 Paris**

List of courses

Fundamental courses

MHMCHIM#	Course title	Slot	Specialties		ECTS
			Scientific	Transversal	
301	Emergent activation methods, synthetic strategies and technologies in synthesis	Fr-PM			6
302	Organometallic Chemistry and Catalysis	We-AM		-	6
303	Design, Synthesis and Characterization of Advanced Polymers	Th-PM			6
330	Total synthesis of natural products and bioactive compounds	Tu-AM		-	6
306	Materials for environment	Tu-PM			6
307	Materials for energy devices	Fr-PM			6
308	Materials for optics	Tu-AM			6
309	Polymers and Soft Matter: Design and Applications	Th-AM			6
310	Biomaterials: from materials engineering to biomedical devices	Mo-PM			6
311	Probing, controlling, elaborating surfaces at the nanometric scale	We-AM			6
312	Statistical mechanics and simulations for biomolecular systems	Th-AM			6
313	Data Science and AI for Chemistry	We-PM			6
314	Theory of Chemical Reactivity	Tu-PM			6
315	Modelling Materials	Th-PM			6
316	Omics	Th-PM			6
317	New molecular and particle-based systems for diagnostics and therapeutics	Mo-PM			6
318	Key issues in modern separation sciences and technologies	We-PM			6
319	Electrochemistry for Sustainability, Diagnosis and Global change	Th-AM		-	6
320	Magnetic resonance	Mo-PM		-	6
321	Multimodal imagings with contrast agents for theranostics	We-AM			6
322	Inorganic Chemical Biology	We-PM			6
323	Dynamics of Biological processes	Fr-PM		-	6
324	Chemical Biology	Tu-PM			6
325	Fluorescent probes for advanced cell imaging	Tu-AM			6

Scientific Specialties:

- Molecular design and synthetic tools
- Analytical and physical chemistry
- Smart materials
- Chemistry and life sciences
- Theoretical chemistry and modelling

Transversal Specialties:

- Digital Chemistry
- Nanotechnologies
- Environment
- Renewable energies
- Health

Transversal courses			
MHMCHIM#	**Course title**	**Slot**	**ECTS**
326	Scientific communication, with project	Tu-PM	6
327	Scientific communication, without project	Tu-PM	4
328	Research design	Fr-AM	6
329	Seminar cycle	Mo-AM	2