

this MSc 2nd year programme is supported by



Laboratories of Physics and Chemistry involved in the project « Laboratory of Excellence Chemical and Physical Properties of the Atmosphere » (CaPPA)

Laboratoire d'Optique Atmosphérique

UMR 8518 CNRS - University of Lille
Villeneuve d'Ascq
www-loa.univ-lille1.fr



Laboratoire de Physico-Chimie de l'Atmosphère

EA 4493 CNRS- Université du littoral Côte d'Opale
Dunkerque
lpc.a.univ-littoral.fr



Laboratoire de PhysicoChimie des Processus de Combustion et de l'Atmosphère

UMR 8522 CNRS - University of Lille
Villeneuve d'Ascq
pc2a.univ-lille1.fr



Laboratoire de Physique des Lasers, Atomes et Molécules

UMR 8523 CNRS - University of Lille
Villeneuve d'Ascq
www.phlam.univ-lille1.fr



Laboratoire de Spectrochimie Infrarouge et Raman

UMR 8516 CNRS - University of Lille
Villeneuve d'Ascq
lasir.univ-lille1.fr



Sciences de l'Atmosphère et Génie de l'Environnement

IMT Lille Douai - Higher School of Engineering and Research Centre
Douai
http://sage.imt-lille-douai.fr/



Further information

master-physique.univ-lille1.fr
master-pac.univ-lille1.fr/
labex-cappa.fr/master-atmospheric-environment

For further information, please contact the person in charge of the coordination of the MSc 2nd year Atmospheric Environment :

MSc in Physics

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MSc in Chemistry

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Practical information

The commuter-friendly university campus is located in Villeneuve d'Ascq, only 10 kilometers away from Lille center.

Lille, european capital of culture in 2004, succeeded in preserving its cultural dynamism combined with an affordable way of life. 3 European capitals: Paris, London, Bruxelles are ideally reached by train in 1 hour.



GRADUATE STUDIES IN ATMOSPHERIC ENVIRONMENT

MSc 2nd Year

MSc in Physics
Light - Matter

MSc in Chemistry
Physical and Analytical
Chemistry

High level of education
Research at the top level
Stimulating environment

SCHOLARSHIPS AVAILABLE



Objectives

A 1-year program graduating a Master of Science in physics or chemistry of the atmosphere, at the highest level.

Training is dedicated to students in **physics and/or chemistry** wishing to follow a specialization in atmospheric sciences to get a strong background in theory and practical work.



Practicals on the Observatory platform graduating class of 2015

Students are immersed in an **international environment** and all courses are delivered in English. The first semester (01 Sept-31 Jan) is dedicated to lectures and practical work, while the second semester (01 Feb-30 June) focuses on a full-time laboratory research project. A large selection of research projects will be offered to students.

The international Master 2 « Atmospheric Environment » is supported by the french **Laboratory of Excellence CaPPA** which involves large complementary research projects gathering together partner teams with strong scientific qualifications. It leads **top-level research activities** thanks to the diversity of researchers' disciplines and its promising research topics.

In order to facilitate **interactions and discussions with professionals**, master students are involved in the events organised by the Laboratory of Excellence CaPPA such as conferences or seminars.

Job opportunities

- PhD thesis in a research laboratory
- Engineer in air quality, in atmospheric measurements, in remote sensing



Laboratory flame PC2A

A visit to every laboratory involved in the Labex CaPPA is organized, helping students to identify the research topic they want to specialize in.

Application

MSc in Chemistry
master-pac.univ-lille1.fr/

MSc in Physics
master-physique.univ-lille1.fr



Seminar of the Labex CaPPA

This program is open to students in chemistry and/or physics with a **validated first-year of Master in Physics, Chemical Physics or Chemistry**.

The application forms are available on the website on December 1st and **must be returned by March 15th**. Each candidate will receive an answer by the end of March.

International students

All students should check if their country has a Campusfrance agency.

➤ If so, they have to **create as soon as possible and mandatory before April 15th** (deadline changes depending on countries). Once international students are selected to follow the master, they will have to go through the Campusfrance procedure. Campusfrance is also in charge of visa issuing. www.campusfrance.org

➤ If not, they need to follow the University of Lille validation process. Documents will be sent by the University of Lille.

Scholarships

Scholarships are available for students having the **highest academic records**. Each selected candidate will receive **7 000€ for the academic year**. Please consult the application form.

For information
University fees (2017-2018):
261,10 € (registration) + 217 € (social security)
Fees are updated each year.

prerequisite : MSc 1st year obtained
=> MSc 2nd year speciality Atmospheric Environment

Physics 2 courses

AE1 - PHY
Electronic structure and vibration-rotation spectroscopy

AE2 - PHY
Radiative transfer in the atmosphere

Chemistry 2 courses

AE1 - CHEM
Advanced analysis methods of atmospheric compounds

AE2 - CHEM
Reactivity in homogeneous and heterogeneous phases

Semester 3

Chemical Physics 3 courses

AE3 Physics and chemistry of the atmosphere

AE4 Advanced spectroscopic techniques for environmental analysis

AE5 Observation systems for atmospheric monitoring

AE6 Advanced English / French

Sept-Jan

Semester 4

Research project in a laboratory

Full-time research position in a laboratory involved in the labex CaPPA

Feb-June

**MSc DEGREE
IN PHYSICS**

**MSc DEGREE
IN CHEMISTRY**

Each semester corresponds to 30 ECTS.
ECTS: European Credit Transfer and Accumulation System