

**SERP-Chem**  
**INTERNATIONAL MASTER IN SURFACE, ELECTRO, RADIATION,**  
**PHOTO-CHEMISTRY**

**Duration:** 2 years

**Course description:**

The Master SERP Chem aims at training experts in the most performing experimental and theoretical tools developed in chemistry and physical-chemistry, in close synergy with research communities and the economic sector. This course is designed to address the increasing need for highly skilled professionals who will develop scientific and industrial areas of great relevance for economic sustainability, environmental safety and protection, and medicine. These areas include the development of renewable energies and "no-energy" chemistry, radiation risks and applications, surface treatment and modification, development of compounds for catalysis. This international study programme stems from strong and long term scientific and academic links between the participating institutions: Université Paris Sud 11 (France), Università degli Studi di Genova (Italy), Uniwersitet Adama Mickiewicza w Poznaniu (Poland), Universidade do Porto (Portugal).

The Master's course is organised on a two year basis and promotes mobility and interdisciplinary. The students study in two to three partner institutions. The first semester is organised in Paris or in Genova and the second semester in Poznan or in Porto. In the second year students choose between different specializations:

- 1) Photochemistry, spectroscopy and environment - Poland;
- 2) Nanostructuration of surfaces and catalysis - Italy;
- 3) Industrial and medical applications of radiations - France;
- 4) Functionalised surfaces and sustainable development - Portugal;

And complete their master thesis.

An important and integral component of the course is the summer school organised at the end of the first year to allow students to develop transferable skills in entrepreneurial management, valorisation and innovation, communication, risks and ethics, patent law, and safety at work. The language of instruction is English, with the obligation to learn the local language and culture with courses delivered by the host universities.

At the end of this course, students will be awarded a double or multiple diploma(s), with a Joint Diploma Supplement describing the training, the grade of the student, and the added value of the SERP-Chem Master's course. The minimum admission requirements are: a bachelor's degree (180 ECTS) in chemistry or material science and a proof of proper knowledge of English (equivalent to IELTS score 6.5, and TOEFL with a score 570/227). The professor/student ratio is close to 2. Each host institution has facilities for helping the social integration of participants (tutoring, administrative support, housing, social and cultural activities) as well as for addressing special needs of students. The fees per year are 4800 € for Third-countries students and 2500 € for European students.

**Website:** <http://www.serp-chem.eu/>

**Partners:**

UNIVERSITY OF PARIS SOUTH - PARIS XI, France (Co-ordinating Institution)  
UNIVERSITY OF GENOVA, Italy  
ADAMA MICKIEWICZA UNIVERSITY, Poland  
UNIVERSITY OF PORTO, Portugal

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**Maximum grant:**

581 200 € (30 000 € consortium + 551 200 € scholarships), 2011  
696 600 € (30 000 € consortium + 666 600 € scholarships), 2012  
665 200 € (30 000 € consortium + 635 200 € scholarships), 2013