

The Erasmus Mundus Master's Course « Advanced spectroscopy in chemistry » is a two-year (120 credits) programme within 5 European universities, providing students with a cross cultural education and expertise in state of the art spectroscopic techniques in a broad range of modern chemistry applications.

www.master-asc.org

A CONSORTIUM OF 5 UNIVERSITIES

BOLOGNA ITALY

Alma Mater Studiorum University of Bologna

Prof. Marco Giorgetti

Phone +39 05 12 09 36 66

E-mail marco.giorgetti@unibo.it

www.unibo.it or www.eng.unibo.it/PortaleEn/default.htm



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

HELSINKI FINLAND

University of Helsinki

Prof. Sirkka Liisa Maunu

Phone +35 82 94 15 03 23

E-mail sirkka.maunu@helsinki.fi

www.helsinki.fi



UNIVERSITY OF HELSINKI

KRAKOW POLAND

Jagiellonian University in Krakow

Dr Piotr Pietrzyk

Phone +48 12 663 22 24

E-mail pietrzyk@chemia.uj.edu.pl

www.uj.edu.pl



JAGIELLONIAN UNIVERSITY
IN KRAKOW

LEIPZIG GERMANY

Leipzig University

Prof. Reinhard Denecke

Phone +49 34 19 73 64 51

E-mail denecke@uni-leipzig.de

www.uni-leipzig.de/chemie

UNIVERSITÄT LEIPZIG

LILLE FRANCE

Lille University

Prof. Sylvain Cristol

Phone +33 3 20 43 45 03

E-mail sylvain.cristol@univ-lille1.fr

www.univ-lille1.fr / www.univ-lille.fr

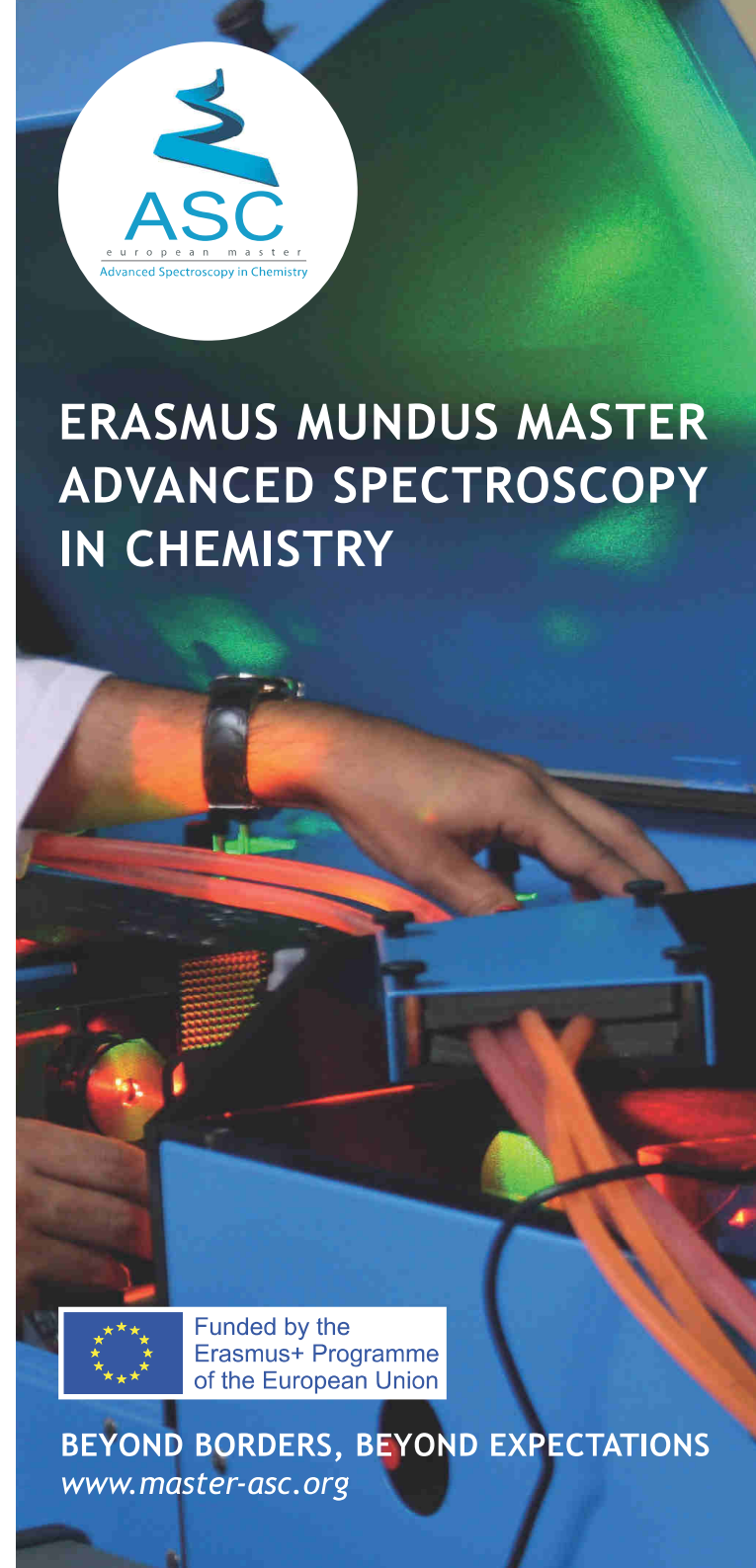


Université
de Lille

For more information:



ERASMUS MUNDUS MASTER ADVANCED SPECTROSCOPY IN CHEMISTRY



Funded by the
Erasmus+ Programme
of the European Union

BEYOND BORDERS, BEYOND EXPECTATIONS
www.master-asc.org

TARGETED STUDENTS

Candidates answering the following criteria :

- Holding a BSc in chemistry, or equivalent education in the field of chemistry, biochemistry, physical chemistry or physics.
- Relevant theoretical knowledge in chemistry or related professional experience.
- Good English skills (minimum score for Toefl paper test 550; IELST: 6.5; CEF Europass: B2).
- Strong interest in spectroscopic techniques and their wide range of applications
- Motivation to study in a multicultural environment in at least two European universities



OBJECTIVES

The ASC master course is a programme of excellence which has been awarded the **Erasmus Mundus** label twice since 2008. The five European universities of the ASC network offer state of the art equipment and expertise covering applications of spectroscopic techniques to chemistry in a broad sense (from material sciences, environmental sciences, biomedical/health sciences etc.). Mobility within this network prepares students to become experts and develop international skills towards doctoral studies, and/or professional industrial careers in chemical analysis and characterization of the structure of materials in the fields of molecular synthesis, biology, nanotechnologies, modeling, pharmacy, green chemistry, materials, and sustainable energies.



www.master-asc.org

CONTENTS

Three semesters (30 credits each) of integrated courses

The **first semester** provides all students with a common platform in advanced spectroscopic methods, including magnetic resonance, mass spectrometry, optical spectroscopy and diffraction techniques.

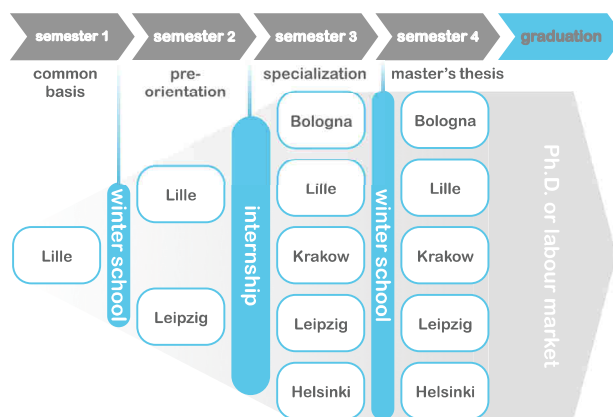
In the **second and third semesters**, more specialized instruction is provided with applications in molecular synthesis, material sciences, biology, nanotechnologies, modeling, “green chemistry”, new energy sources. 10 credits are devoted to transferable skills (internship, bibliographical research, project management, norms and regulations in chemistry).

One semester for the Master thesis (30 credits) in a research Laboratory

The ASC network offers a broad range of opportunities for internships in research laboratories within the ASC institutions, and associated partners (industry, large research facilities or research institutions). The master thesis can be based on a collaborative project between two institutions.

A winter school

A winter school is organized each year in a different location on a chosen topic to deepen one specific field of spectroscopy. This joint social event gathers students, members of the ASC institutions as well as industrial and research associated partners, and ASC alumni.



PROSPECTS

ASC graduates

- Are experts in chemical analysis, structural characterization, characterization of fast reactions, molecular imaging;
- Are well prepared for R & D careers in industry or research institutes.
- 80 % of them continue onto funded Ph.D. programs.
- Develop high skills in project management, intercultural communication, and are at least bilingual.

TYPE OF DEGREE

Master of Science with thesis diploma in “Advanced Spectroscopy in Chemistry” accredited in each partner university.

ASC graduates are awarded multiple diplomas from each partner university where they have successfully attended at least one semester (30 credits).

ASC SCHOLARSHIPS

In order to give the Erasmus Mundus Master’s Course a strong external projection, a scholarship scheme for graduate students (EU students: up to 35 000 €; non-EU students: up to 49 000 €) and scholars (1200 € / week) is available for highly qualified candidates.

APPLICATION

Apply online before February 28th: www.master-asc.org

Contact:

Mrs Francine Chanier
Lille University - science and technology
Cité Scientifique, Building C15
Boulevard Langevin
59655 - Villeneuve d’Ascq cedex - France
Phone: +33 (0)3 20 33 64 36
E-mail: master-asc@univ-lille1.fr



Crédits photo : CNRS Photothèque / Cyril Fresillon / UCSS & Photothèque Université de Lille - sciences et technologies