

MASTERS :

8 INTERNATIONAL
PROGRAMMES



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UPMC offers 8 international masters programmes in partnership with universities all over the world. UPMC assists in the administration and planning of these programmes. Students selected on the basis of a written application, receive funding towards the cost of the placement abroad and are given language training.

- > programme of studies jointly developed by several universities
- > mobility period for teaching staff
- > one-semester study abroad for French and international students
- > common programme admission criteria
- > assessment system recognized by all partner universities
- > recognition of the study period abroad
- > issue of a diploma supplement or a double degree



MASTER IN PHYSICS AND APPLICATIONS

> Nanomat: international master in Materials and Nanoscience

UPMC / Uppsala University (Sweden)

Nanoscience is now central to much research in fields as diverse as biology, chemistry and physics.

The objective of this Master programme is to provide in-depth knowledge in materials physics, production methods and spectroscopic analysis techniques in extreme miniaturisation; keys to the design of new materials with basic electronic, magnetic and optical properties.

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www.nanomat-master.eu

MASTER IN INFORMATICS

> Bioinformatics, biomathematics and computer modelling

UPMC / Université libre de Bruxelles
(Belgium) / University of Leeds (England)

This international programme builds on the bioinformatics, biomathematics and computer modelling experience of the various research centres of UPMC and its international partners, to offer a course covering the issues in biology and medicine that generate new requirements interfacing with informatics and mathematics: complex data analysis, detailed modelling tools.

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MASTER IN BASIC AND APPLIED CHEMISTRY

> Molecular chemistry (JCEMolChem)

UPMC / Université de Montréal (Canada) / Université
d'Ottawa (Canada)

The JCEMolChem programme covers all aspects of molecular chemistry: organic and inorganic molecules and their synthesis, molecular materials and their properties, biomolecules and their modes of action; and offers one semester abroad, in years 1 or 2, with lectures and a laboratory placement. The project is financed by the EU-Canada 'Transatlantic Exchange Partnerships' programme.

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www.jcemolchem.org



MASTER IN INTEGRATIVE BIOLOGY AND PHYSIOLOGY

> Biology of marine organisms: Fundamental and applied studies

UPMC / Pontificia Universidad Católica de Chile, Santiago (Chile) / Universitat de Barcelona (Spain)

This international Master programme provides students with a solid grounding in the integrative biology of marine organisms along with more applied training in animal and plant aquaculture, environment quality assessment techniques, genomics and biotechnologies. Partner universities have been selected for the complementary nature of their expertise in these fields.

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www.edu.upmc.fr/sdv/desdevises/international_master

MASTER IN EARTH SCIENCES, ENVIRONMENT, ECOLOGY

> Basinmaster

UPMC / Vrije Universiteit, Amsterdam (Netherlands) / Technische Hochschule, Aachen (Germany)

The objective of the Basin Master is to train geologists to be able to carry out scientific and/or industrial projects in the field of sedimentary basins and their resources, particularly hydrocarbons but also water.

The degree course provides knowledge of the processes that govern the evolution of basins and their resources, regional knowledge of basins around the world and the ability to take a multidisciplinary approach and an open, international approach; gained through a minimum of one semester spent at one of the partner universities.

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www.basinmaster.eu

MASTER IN INTEGRATIVE BIOLOGY AND PHYSIOLOGY

> Physiology and physiopathology

UPMC / Universidad Complutense de Madrid (Spain) / Universidad de la Republica, Montevideo (Uruguay) / Institut Pasteur, Montevideo (Uruguay)

The international physiology and physiopathology programme provides theoretical and general knowledge in normal physiology and human pathology. Technical and applied approaches will enable students to evaluate the relevance of an animal model (fundamental/clinical research interface) and to carry out laboratory research (advanced techniques in molecular and cellular biology and imaging). The degree course also enables students to acquire cross-disciplinary skills such as the ability to research information in specialist literature, written and spoken scientific communication and team work.

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MASTER IN ENGINEERING SCIENCE

> Mechatronic systems for rehabilitation

UPMC / Università degli Studi di Brescia (Italy)

This programme provides skills in engineering for the design of innovative technical equipment and medical aids.

These intelligent mechatronic systems are used in diagnostics, motor aids, functional rehabilitation, etc.

This course enables students to acquire the knowledge essential to mastering the design of mechatronic systems following a people-focused approach while including technological development and biomedical research:

mechanics, electronics, automatics, informatics, signal processing, image processing and neurophysiology.

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MASTER IN MOLECULAR AND CELLULAR BIOLOGY

> From molecular developmental biology to biomedicine, evolution and systems biology

UPMC / Universitat Pompeu Fabra, Barcelona / (Spain) / Universidade de Lisboa (Portugal) / Universiteit Maastricht (Holland)

This Master provides a multidisciplinary approach to developmental biology, motivated by the growing significance of this discipline in the understanding of human diseases (congenital malformations, cancer, sterility) and the innovative prospects for their treatment (original cells, cloning, gene and cell therapy). Through the various options on offer, the degree course enables students to integrate the concepts and knowledge acquired in developmental biology with biomedicine, systems biology and evolution biology.

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http://lmd-biODEV.snv.jussieu.fr/master_inter_bmcd.html



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