

ADMINISTRATIVE STAFF

Sylvie DUQUESNOY
Building. C1
sylvie.duquesnoy@univ-lille.fr

Phone : + 33 3 20 43 65 93

Web site : iracm.univ-lille.fr/



APPLICATIONS

All students that:

- have a Bachelor in the field of chemistry or related subjects
- have a solid background in English
- have a strong interest in acquiring and developing skills in Research related to Chemistry

Some admitted students will be given financial support in the form of scholarships. Depending on your country of origin, you have different modes of application.

International students must complete the Campus France procedure as soon as possible (campusfrance.org/en) for application to the Master and Student Visa.

Students with no Campus France agency and Europeans have to go through the university's application program e-candidat <https://ecandidat-2020.univ-lille.fr/>

RECRUITMENT CALENDAR

Recruitment calendar: opening from 22/03/23 to 18/04/23. Admissions will be released on 30/04/23

DIRECTORS

Directors of studies
Dr. Stéphane Aloise
Phone : +33 3 20 43 40 85
stephane.aloise@univ-lille.fr
Dr. Eric Marceau
Phone : +33 3 20 43 69 44
eric.marceau@univ-lille.fr

INTERNATIONAL RELATIONSHIPS

- The University of Lille has a policy of supporting international access to its courses. This is why it has introduced special procedures to make international students feel welcome and form collaborations.

<https://www.univ-lille.fr/home/international-student/>

- Practical information for your stay at the University of Lille

SCHOLARSHIPS

Scholarships awarded by the Graduate Programme « Science for a Changing Planet » are available to M1 and M2 students to support their studies, to facilitate their settling in Lille and to do an internship in a foreign country. Eligibility, criteria and application can be found here :

deadline : 15th March 2021 (first call) ; please check the date online for the second call
<http://www.isite-ulne.fr/index.php/en/graduate-programme-science-for-a-changing-planet-student/>

For more information on the national diplomas offered by the Faculty of science and technology of the University of Lille, consult the training catalog
www.univ-lille.fr/formations.html

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Science for a
changing planet

Master

MASTER 1 / MASTER 2

Mention

Chemistry

Parcours

Integrated research for
advanced chemistry and
materials (IRACM)



FACULTÉ
DES SCIENCES ET
TECHNOLOGIES
Département Chimie

Université
de Lille

FRANCE
compétences
CERTIFICATION
enregistrée au RNCP

OBJECTIVES

The Master degree IRACM (Integrated Research for Advanced Chemistry and Materials) provides an advanced 2-year programme dealing with chemistry fields which are representative of present research interests in 5 laboratories of Lille University. The main objective of IRACM is to obtain a better orientation of undergraduate students toward funded 3 year PhD programs within research laboratories of our University.

The originality of IRACM relies on the pedagogical approach to research training : apart from classical classes during S1 (See green cells in programme structure) devoted to the main fields of chemistry (organic, inorganic, spectroscopy...etc), the student will be gradually immersed in our laboratories. From S1 to S4, students will have « integrated research classes » (See yellow cells in programme structure) with a special focus on : Smart Functional Materials, Colloidal Dispersions in Nanomedicine, Advanced Catalytic Processes, Visualization of Chemical Reactivity (chemical modeling and transient spectroscopies). Furthermore, the student's autonomy and initiative will be encouraged through MOOC classes, pluridisciplinary or industrial projects (S2) and Laboratory Projects I and II (S3 and S4). Finally, high-level classes and seminars will be given by worldwide experts, introducing subjects like Artificial Intelligence for Chemistry and other 21st-century hot topics.

Besides theoretical and technical skills related to Chemistry, competences essential for research will be given through specific Graduate Programme Courses like Project Management or Dissemination of Science (See blue cells in the programme structure).

PROGRAMME STRUCTURE

1 ECTS (European Credits Transfer System) represents about 10 hours in class (lectures, tutorials, laboratory practical, case study inside laboratories). All the classes are taught in English.

M1- Semester 1				Integrated Research I: Fundamental tools and concepts				
Language	Project Management	Inorganic Chemistry	Organic Chemistry	Initiation to Scientific programming	Molecular Spectroscopy & Computational Chemistry	Analytical Chemistry	Inorganic-organic materials	Fundamentals in Catalysis
3 ECTS	3 ECTS	3 ECTS	3 ECTS	3 ECTS	6 ECTS	3 ECTS	3 ECTS	3 ECTS
M1 - Semester 2				Integrated Research II: Specialization (choice of 2 courses among 4)				
MOOC	Kinetics of Chemical Networks	Chemometrics	Characterization of Solids	Pluridisciplinary or industrial project	Visualizing Chemical Reactivity	Colloidal Dispersions in Nanomedicine	Smart Functional Materials	Advanced Catalytic Processes
3 ECTS	3 ECTS	3 ECTS	3 ECTS	6 ECTS	6 ECTS	6 ECTS	6 ECTS	6 ECTS
M2- Semester 3				Integrated Research III: Advanced techniques, and project				
Dissemination of Science	Hot TOPICS in Chemistry 6 ECTS		Artificial Intelligence in Chemistry 3 ECTS	Advanced Characterization Methods 3 courses from the portfolio 9 ECTS		RESEARCH PROJECT I 9 ECTS		
3 ECTS								
M2-Semester 4				Integrated Research IV: Master Thesis				
RESEARCH PROJECT II 30 ECTS								

THIS MASTER DEGREE PROGRAMME IS PART OF THE GRADUATE PROGRAMME "SCIENCE FOR A CHANGING PLANET"

GRADUATE PROGRAMMES of the University of Lille offer to master students and PhD's a training environment through research-driven approach in an international, stimulating, competitive and innovative context as well as professional networking for successful career planning.

The Graduate Programme 'Science for a Changing Planet' provides them with the core competencies to address societal challenges of our time including (1) understanding and monitoring planet changes; (2) seeking alternative solutions to the exploitation of fossil resources, and (3) evaluating the impact of global changes on people, the earth and societies.

Key figures : 9 Master Degree Programmes (150 students), 1 Graduate School (70 PhDs) with more than 60% international students

Scholarship : The Graduate Programmes offer fellowships (3500 euros) and relocation (3500 euros) grants to attract bright students in their master tracks, as well as outgoing mobility grants (max 3000 euros) to its registered students.

- Fellowship and relocation grant : 1st call (31/03, results 15/04), 2nd call (15/05, results 01/07)

More information: <https://international.univ-lille.fr/en/graduate-programmes/science-for-a-changing-planet/>



TRAINING ASSETS

- High-level educational and research environment, proposed by 5 internationally renowned laboratories of the chemistry department.
- An international recruitment
- An interdisciplinary programme encompassing organic chemistry, inorganic chemistry, physical chemistry and material science
- 12 months of experimental teaching and laboratory internships during the master degree, which will facilitate integration within both academic and industrial domains.
- Master students will also acquire project management skills
- Possibility of scholarships during the two years (M1&2) : 3 500€ to 7 000€ per year