

## ADMINISTRATIVE STAFF

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## 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 to acquire and develop skills in Research related to Chemistry

IRACM will be highly selective at entry (up to 12 master students). 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](http://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.univ-lille.fr/>

## RECRUITMENT CALENDAR

- Campus France: before 06/03/2020
- e-candidat: 02/03 to 24/04/2020

## DIRECTOR

Director of studies  
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## INTERNATIONAL RELATIONSHIP

- The University of Lille has a policy of supporting international access to its courses. That's 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

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



Mention

Chemistry

# INTEGRATED RESEARCH FOR ADVANCED CHEMISTRY AND MATERIALS (IRACM)

PROJET





## OBJECTIVES

The Master's degree (Integrated Research for Advanced Chemistry and Materials, IRACM) provides a 2-years program in Chemistry Sciences (organic, inorganic and physical Chemistry) at a high level. The academic training in the first year provides students with the required basic theoretical and experimental skills for the understanding of matter. By the variety of optional courses that are offered, students can define their own competence profile in four topics (Sustainable Processes and Bioprocesses, Smart Functional Materials, Multiscale Reactivity and Dynamic of Complex Systems, Advanced Molecular Chemistry and Formulation Science).

## TARGETED SKILLS

Depending on the choice of courses, students will acquire specific skills in connection with the excellence of the academic research laboratories of our department. In addition to mastering the knowledge of one's specialty area, students have the opportunity to develop skills in Research:

- Acquiring the experimental skills necessary for laboratory activity
- Analyze, understand and communicate clearly by mastering the current tools of communication.
- Connect knowledge from different fields and formulate rigorous reasoning
- Working independently in setting priorities, managing time and self-evaluating
- Search and produce a summary note from bibliographical documents
- Assessing the quality (reliability and validity) of the information and its source

## JOB OPPORTUNITIES & FURTHER STUDIES

In addition to career opportunities in the academic sector, the present graduate can offer various attractive opportunities in the industry and in the public sector. Excellent employment opportunities are also available in developing and emerging countries.

The training is largely dominated by research at high level with access to world-class instrumentation and research facilities hosted in 7 laboratories of the department. IRACM is then an excellent training for the students interested in pursuing their studies by a PhD program in one of the topics of our graduate program "Science for the Changing Planet"

## STRENGTH OF THE TRAINING

- High-level educational and research environment, proposed by 7 laboratories of the chemistry department.
- An interdisciplinary chemistry program at the frontiers of physics, organic, inorganic and materials science
- 12 months of experimental teaching and laboratory internships during the master's degree, including international mobility facilitates integration within both academic and industrial domains.
- Master students acquire project management skills at an international level
- Possibility of scholarships during the two years (M1&2)

## PROGRAM STRUCTURE

The training is organized around five skill blocks (BCC):

**BCC1: DEFINE AND PREDICT THE PROPERTIES OF THE MATERIAL**

**BCC2: SYNTHESIZE AND TRANSFORM THE MATERIAL**

**BCC3: ANALYZE AND CHARACTERIZE THE MATERIAL**

**BCC4: COMMUNICATION IN SCIENTIFIC LANGUAGE**

**BCC5: DEFINE PERSONAL AND PROFESSIONAL PROJECT**

The first year of the Master degree is focused on the fundamental aspects of Physical Chemistry, spectroscopy, organic and inorganic Chemistry.

### Master 1- Semester 1

#### BCC1

- Organic Chemistry
- Inorganic Chemistry
- Physical Chemistry

#### BCC2

- Sustainable Processes and Bioprocesses (I)
- Smart Functional Materials (I)
- Multiscale Reactivity and Dynamic of Complex Systems (I)
- Advanced Molecular Chemistry and Formulation Science (I)
- Advanced Spectroscopy and Characterisation (I)

#### BCC4

- Language

### Master 1- Semester 2

#### BCC1

- Numerical Tools/Data mining

#### BCC2

- Sustainable Processes and Bioprocesses (II)
- Smart Functional Materials (II)
- Multiscale Reactivity and Dynamic of Complex Systems (II)
- Advanced Molecular Chemistry and Formulation Science (II)
- Advanced Spectroscopy and Characterisation (II)

#### BCC4

- Internship abroad or in company

#### BCC5

- Project Management

### Master 2- Semester 3

The second year is dedicated to specialized topics (Sustainable Processes and Bioprocesses, Smart Functional Materials, Multiscale Reactivity and Dynamic of Complex Systems, Advanced Molecular Chemistry and Formulation Science).

#### BBC3

- Advanced specialization
- Advanced Characterization Techniques

#### BBC4

- Dessimination of Sciences
- Transdisciplinary Project
- Circular Economy

### Master 2- Semester 4

#### BBC5

- Research Project & Master Thesis

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](http://www.univ-lille.fr/formations.html)