



MASTER'S  
DEGREE

Master 1 / Master 2

# Biology and Health Science

## NEW PROGRAM

Accessible in:

- Initial education
- Continuing education





## UNIVERSITÉ DE LILLE

As a leading European university recognized for the excellence of its research and teaching, the University of Lille has made student success one of its major priorities, and places career development at the heart of its commitment. Backed by cutting-edge research, the University's course offering is designed to keep pace with developments in the socio-economic and socio-professional worlds, in order to contribute to the major transitions in our society and prepare each and every learner, throughout their lives, for the skills and professions of tomorrow.

The University of Lille comprises 11 faculties and 4 partner schools - École Nationale Supérieure des Arts et Industries Textiles (ENSAIT), École Nationale Supérieure d'Architecture de Lille (ENSAPL), École Supérieure de Journalisme de Lille (ESJ Lille), Sciences Po Lille (IEP) - and is a key stakeholder in regional ecosystems, thanks to the many partnerships (related to sports, culture, society at large, business, etc.) we have forged for the benefit of our students and staff. This strong dynamic is also supported by the contributions of 6,500 outside professionals who are involved in our teaching activities, and the development of chairs and cooperative ventures that are aligned with all transition in all its forms.

**Inspiring tomorrow!**

## SCHOOL OF HEALTH AND SPORTS SCIENCES UFR3S

Lille University School for Health and Sports (UFR3S), rising from the merger of five schools of Health Engineering and Management, of Medicine, of Odontology, of Pharmacy, of Sports science and physical education.

With nearly 23,000 students, 850 teachers researchers and 500 administrative and technical staff, the UFR3S forms a strong and coherent community united by a common objective: to create and transmit knowledge and build skills in the field of Health Sciences and Sport.

Thirty-four teams of international standing host the transdisciplinary research work of the UFR3S. With more than a thousand publications per year, the Lille's university hospital campus ranks among the most the most influential medical research centres in France.

Located on nearly 120,000 square meter of training and research space and research areas, and partners with one of the best university hospitals, the UFR3S benefits fully from excellence in care, clinical training and scientific research.

As a partner of 115 foreign universities in 38 countries in 38 countries on five continents, the faculties of the UFR3S are also internationally recognised players in teaching and research.

**UFR3S-Medicine** - F-59045 Lille Cedex -Phone number: +33 (0)3 20 62 69 00 - <https://medecine.univ-lille.fr/>

## UNIVERSITY SCHOOL OF SCIENCE & TECHNOLOGY

The School of Science and Technology is a multidisciplinary school and one of the most important faculties in the University of Lille. Located in the Campus of Cit Scientifique in Villeneuve d'Ascq, it brings together 7,000 students, 1,300 staff including 830 teaching and research staff and 470 administrative and technical staff. It is composed by 9 academic departments and 24 internationally renowned research laboratories..

**FST** - Campus cité scientifique - Bâtiment *formation continue* - 59650 Villeneuve d'Ascq

# MASTER : BIOLOGY - HEALTH

## MASTER 1

### MASTER 2 : TRACKS

Biomedical research on donors bodies

Cellular, Integrative and Translational Neurosciences

Diabetes and cardiovascular diseases

Oncologie fondamentale et clinique, vers une médecine de précision

Immunité, inflammation, infection

Precision Health  
*Graduate Program*

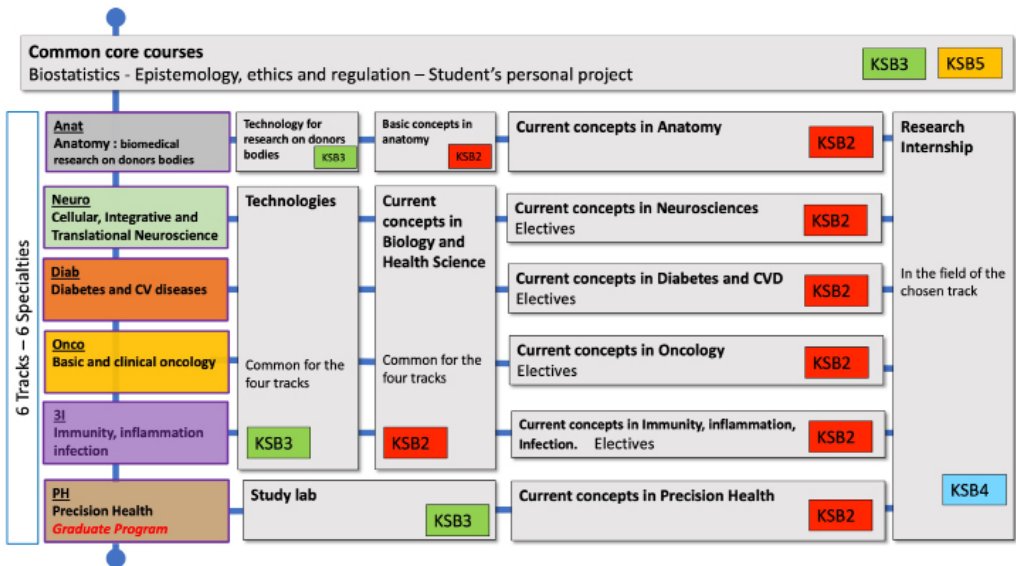
## MASTER'S DESCRIPTION

Biology-Health master's degree prepares students in research through research. This master mainly aims to prepare students for further PHD studies. However, it is also possible to work as a research engineer project manager/science officer in the pharmaceutical or biotechnology industry. The program is offered by Lille University School of Medicine in association with the Faculty of Science and Technology and it targets two different audiences: students with a bachelor's degree in life science and students with a bachelor's degree in health (medicine, maïeutics, pharmacy, odontology). The program's duration is 2 years (Master 1st year - Master 2nd year).

## OBJECTIVES

**Master 1st year** provides the bases in biological and health sciences, with progressive specialization.

**Master 2nd year** offers six different tracks: They all aim to provide students with quality education to pursue a university thesis in their speciality field.



# PROGRAM ORGANIZATION

- The program's duration is two years (4 semesters of 30 ECTS). Courses are held in French and English.
- The courses are organized in Skills and knowledge units (SKU) spread throughout the two-year's program.

**SKU1** : Knowing basic concepts in Biology-Health

**SKU 2** : Knowing current concepts in Biology-Health in the the chosen special

**SKU 3** : Developing and implementing an experimental approach in Biology-Health

**SKU 4** : Conducting a research project in Biology-Health

**SKU 5** : Understanding and communicating on scientific content in English

- M1 prepares students for the multiples M2 specializations.
- For more details: <https://master-biologie-sante.univ-lille.f>

## Biomedical research on donors bodies

- This track is exclusively reserved for health students. The objective is to deepen the students' knowledge in applied anatomy and to provide the essential skills to carry out research on donor bodies.

## Cellular, integrative and translational neuroscience

- Particularly focused on the interface between cellular aspects, the study of neuro-glia networks and the development of integrated models with technological, diagnostic and therapeutic applications in the field of neurological and mental pathologies.

## Diabetes and cardiovascular diseases

- Particularly dedicated to recent developments in "Omics", the impact of genetics, the epigenetics and the environment on the development of cardiometabolic diseases, cardiovascular and hepatic complications in diabetes.
- The role of deregulation of the dialogue between organs and tissues in the pathophysiology of diseases associated with diabetes is discussed as well as the identification of therapeutic targets..

## Fundamental and clinical oncology, towards precision medicine

- Combining basic research, clinical research and applied research in diagnosis and therapy. It is based on developed themes in the expert research teams in this field at the University of Lille. This pathway provides an integrated vision of cancer pathology and current and future therapies.

## Immunity, inflammation and infection

- Based on the developed themes in the research structures at the University of Lille, in particular **(1)** the molecular and cellular dynamics of the pathogenic-host microorganism interactions, **(2)** the immune processes involved in infectious pathologies, **(3)** chronic inflammatory diseases, and **(4)** the relationships between the immune system and the environment (microbiota, pollution, sport, food, etc.). Today's therapeutic strategies aiming to manipulate molecular and immune effectors will also be developed.

## Precision Health-Graduate Program

- This is an international pathway that is part of a graduate program.
- Its distinctive character will be to rely on examples taken from the health sector's key themes, which cover different types of chronic diseases justifying a long-term precision approach, from screening to the prevention of complications.



For more information on the national degrees programs offered by the University of Lille, consult the degree catalog:

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

## TARGETED AUDIENCE

- Students with a bachelors' degree in Life Sciences or an equivalent diploma can apply for the Master 1 "Biology".
- Only students registered in Medicine, Pharmacy, Odontology or Maieutics can apply for the Master 1 - options "Health - single curriculum" and "Health - double curriculum Medicine-Science"

## TARGETED SKILLS

- To contribute to a research activity in Biology Health in a research laboratory;
- To design an experiment in Biology-Health in the chosen field of specialization by defining a problem and formulating the objectives;
- To implement an experimental approach in Biology-Health
- To analyze data collected in fundamental, clinical or pharmacological research studie
- To communicate scientific data in English, adapting the level of expression and specialization to the target audience

## JOB OPPORTUNITIES & FURTHER STUDIES

The program leads mainly to a doctoral degree. Graduates can also apply for the following jobs :

- Design engineer in a public or private laboratory
- Project manager/ science officer in the pharmaceutical or biotechnology industry
- University teacher/researcher (with further doctoral studies

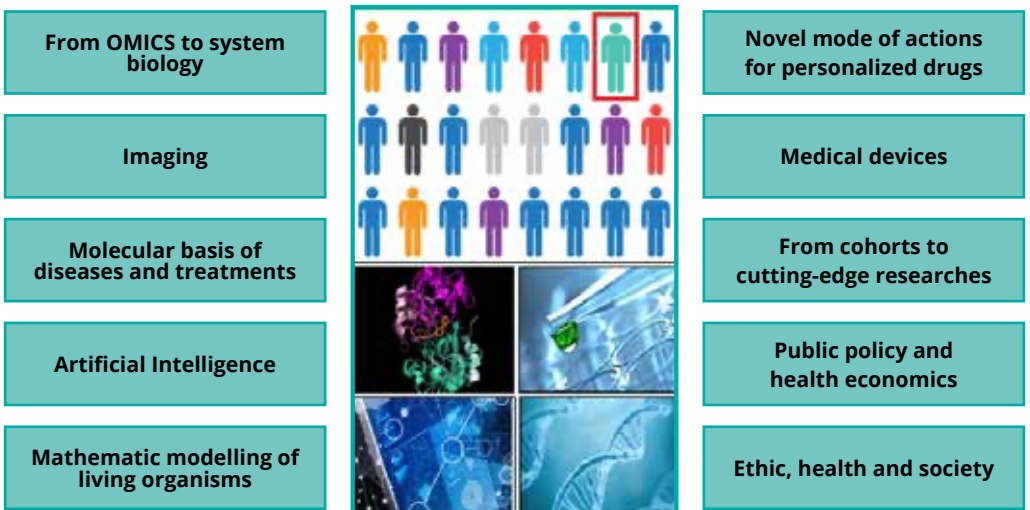
**Find the studies and surveys of the ODIF (Observatoire de la Direction de la Formation) on professional integration of graduate students: <http://odif.univ-lille.fr>**

**NB : A certified level in French will be required.**



# FOCUS ON **PRECISION HEALTH** TRACK

- International course open to students from scientific, medical/pharmaceutical and (bio)informatics education
- Ten interactive seminars given by national or international experts in the fields of multi-OMICS, artificial intelligence, mathematic modelling of biological systems, state-of-the-art therapies (medical devices and personalized drugs), cohort management, healthcare economics and ethics
- Application examples from the leading themes of the research sector, cancer, diabetes, neurosciences, infection/immuno/inflammation, justifying a precise approach over the long term, from screening to the prevention of complications
- A particular focus toward the business world and bio-entrepreneurship, particularly for the preparation to job integration
- A six month training in research through research in internationally recognized laboratories with a personalized preparation
- PHD fellowships awarded to students motivated to pursue their research training





## ADMINISTRATIVE CONTACT

### Bâtiment DFCA

1 Rue du Professeur Laguesse - 59000 Lille  
(en face du bâtiment Galien de la Faculté de Pharmacie)

<http://master-biologie-sante.univ-lille.fr>

Métro : Ligne1, station CHU Eurasanté

Phone: +33(0)3 20 62 69 00

## APPLICATION AND ADMISSION

### MASTER 1

Admission to the first year of the Master's program is subject to the application file examination according to the following procedures:

#### BIOLOGY STUDENTS

##### Admission capacity

- 50 places for the Biology option

##### Selection procedure

- Application file

##### Application's evaluation criteria

- A Completed Bachelor's degree in life sciences, life and earth sciences, science and biotechnology, biologic health sciences or any other equivalent degree,
- A clear and realistic presentation of a professional project, explained for the short, medium and long term,
- Adequacy between the master's degree and the professional project presented

### HEALTH STUDENTS

##### Admission capacity

- 300 places for the Health - single curriculum option and 15 places for the Health - double curriculum medicine/science option

##### Application's evaluation criteria

- A clear and realistic presentation of a professional project, explained for the short, medium and long term
- A dequacy between the master's degree and the professional project presented
- To have validated at least completely the second year of health studies (medicine, pharmacy or odontology)

### NATIONAL RECRUITMENT PROCEDURE and timetable via [www.monmaster.gouv.fr](http://www.monmaster.gouv.fr)

Applications from 26/02 to 24/03/24 inclusive

Examination of applications from 02/04 to 28/05/24

Transmission of admission proposals to candidates and candidates' replies: from 04/06 to 24/06/24 (main admission phase) and from 25/06 to 31/07/24 (complementary admission phase).

### MASTER 2

Access to master 2 degree is possible for students from other universities who have validated a master 1 degree in the field of Biology and Health or in an equivalent field. Please contact the program managers.

## PROGRAM MANAGERS

### Head

Professor **Pr Kathy DUJARDIN**

### Study coordinators

Lille University School of Medicine

M1 : Biology option : **Pr Eric ADRIAENSSENS**

M1 : Health options: **Dr Cyril COUTURIER**

M2 : **Pr Fabrice ALLAIN**

## SUPPORT AT THE UNIVERSITY OF LILLE

### STUDY PROGRAM ADAPTATION

In order to offer the best possible conditions for success to the students it welcomes, the University of Lille has set up various adaptations to enable students to start and continue their studies in the best possible way, depending on their situation: study arrangements for high school students concerned by a Parcoursup «Yes if» answer, students with disabilities, high-level sportsmen and women, civic service volunteers, students in exile, etc.

- <https://www.univ-lille.fr/formation/amenagements-des-etudes/>

### INFORMATION AND GUIDANCE

The SUAIO - Service Universitaire Accompagnement, Information et Orientation - is open to all: information, advice and support, orientation and reorientation, personal interviews

- [www.univ-lille.fr/formation/sinformer-sorienter](http://www.univ-lille.fr/formation/sinformer-sorienter)

### PREPARATION FOR PROFESSIONAL INTEGRATION

The BAIP - Bureau d'Aide à l'Insertion Professionnelle (Office for Professional Integration Support) offers students support for professional integration (internships and first jobs), entrepreneurship and the creation of activities.

- [www.univ-lille.fr/formation/preparer-son-insertion-professionnelle](http://www.univ-lille.fr/formation/preparer-son-insertion-professionnelle)

### APPRENTICESHIP

To acquire skills, a diploma and professional experience at the same time, more than 220 courses are offered on a sandwich course (professionalization or apprenticeship contract).

- <https://formationpro.univ-lille.fr/alternance>

### LIFELONG LEARNING

All of the university's degree programmes are accessible through continuing education. The Continuing Education and Work-linked Training Department offers individualised support for your project (VAPP, VAE).

- <https://formationpro.univ-lille.fr/>

### AND THE INTERNATIONAL SCENE!

- <https://international.univ-lille.fr/>