

Chemistry for life sciences 2nd year (CLS)

Master in Chemistry



Duration
1 year



Component
UFR Chimie-
Biologie



Language(s) of
instruction
English

Presentation

This program provides students with the skills and knowledge of research issues in the chemistry for life sciences field, in order to be able to successfully carry out research projects at this interface (by continuing in doctoral education).

In the 2nd year in Chemistry for life sciences, classes will focus on chemistry at the interface with biology and its applications, with, in particular, courses on bioorganic and bioinorganic chemistry. The teaching units in bioorganic chemistry focuses on the synthesis, engineering and modification of biomolecules (proteins, nucleic acids and sugars) in order to obtain bioactive molecules as research tools for biology. As for the UE in Bioinorganic chemistry, its aim is to understand the role of metals in living systems in order to best imitate the way in which they work and anticipate how they interact with biomolecules. A course of biology specific to the 2nd year's CLS program raises students' awareness about the different innovative biological targets which have significant therapeutic and diagnostic interest. This cross-disciplinary specialisation will broaden the students scientific culture at the chemistry-biology interface and enable a better understanding of the biological mechanisms and pathways that can be targeted. In parallel, students must also take a course of either biology or chemistry, within those proposed among the other programs of the chemistry or biology degree, to personalize their own formation.

International education : Internationally-oriented programmes

International dimension

Students have the possibility to follow courses all taught in English in S9 (30 ECTS) as well as in the master 1st year (60 ECTS).

Organisation


Admission

Access conditions

Second year master's degree : To be eligible to apply you should have completed, or be enrolled in a first year of a master program in Science, and totalize 60 ECTS

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed training under the continuous training regime one of the previous 2 years
- or if you are an employee, job seeker, self-employed

If you do not have the diploma required to integrate the training, you can undertake a  validation of personal and professional achievements (VAPP).

Candidature / Application

You want to apply ? Please be aware that the procedure differs depending on the diploma you want to take, the diploma you have already obtained and, for foreign students, your place of residence. Let us be your guide – simply follow this [link](#)

- 2 application campaigns are organized for the master 2nd year CLS
- Campaign 1 : Open campaign on e-candidate from March 30 to April 17 2020 included
- Campaign 2 : Open campaign on e-candidate from April 27 to May 15, 2020 included

Fees

- Tuition fees 2019-2020 : 243 €
- CVEC fees : 91 €

And after

Further studies

After the 2nd year in Chemistry for life sciences :

- Continue with a Ph D
- Additional training in management, sales or quality

Sector(s)

The 2nd year's master in Chemistry for life sciences leads to the following careers :

- Design engineer, laboratory manager (upon completion of the master's degree)
- Higher education research professor
- Researcher in academic or industrial laboratories (following a doctoral degree)

Useful info

Contacts

Program director

Sabine Chierici

✉ Sabine.Chierici@univ-grenoble-alpes.fr

Administrative contact

Chemistry-Biology Course Services

✉ ufrchimiebiologie-formation@univ-grenoble-alpes.fr

Course location(s) - City

📍 Grenoble

Campus

🏠 Grenoble - University campus

Program

Master 2nd year

Semester 9

	Nature	CM	TD	TP	Crédits
UE Bio-targeted chemistry	Teaching Unit (UE)	20h			3 credits
UE Bionorganic chemistry	Teaching Unit (UE)	40h			6 credits
UE Topics in biological chemistry	Teaching Unit (UE)	20h			3 credits
UE Main classes of drugs	Teaching Unit (UE)	30h			3 credits
UE High throughput biology	Teaching Unit (UE)	30h			6 credits
UE Structural determination of biological macromolecules	Teaching Unit (UE)	25h	15h		6 credits
UE Heterocyclic chemistry	Teaching Unit (UE)	30h	6h		3 credits
UE Molecular modelling	Teaching Unit (UE)	30h			3 credits
UE Green chemistry	Teaching Unit (UE)	30h			3 credits

Semester 10

	Nature	CM	TD	TP	Crédits
UE Tools for engineers	Teaching Unit (UE)	18h	21h		3 credits
UE Internship	Teaching Unit (UE)				24 credits
UE English	Teaching Unit (UE)		24h		3 credits