

## Parcours Chemistry for life sciences 2e année

### Présentation

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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 therapeutic, diagnostic or targeting tools. 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 master CLS program raises students' awareness about the different innovative biological targets which have significant therapeutic and diagnostic interest. This cross-disciplinary specialization 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.

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).

### Admission

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#### Conditions d'admission

- 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

Continuous education : Students fall under the continuous education scheme if they:

- go back to studies after an interruption of two years or more
- did follow a continuous education program during one of the two previous years
- are employees, independent entrepreneurs or registered as job seekers

In case you do not have the required diploma, you might initiate the accreditation of [personal and professional experience \(VAPP\)](#).

#### Candidature

Recruitment campaign : on e-candidat from 4th of march to 27th of march 2024

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](#)

#### Droits de scolarité

UGA registration fees 2024 / 2025 : 243 € + 100 € CVEC

## Poursuite d'études

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After the 2nd year's master in Chemistry for life sciences :

- Continue with a PhD
- Additional training in management, sales or quality : The 2nd year's master in Chemistry for life sciences leads to the following careers : engineer, laboratory manager (upon completion of the master's degree)
- Higher education research professor
- Researcher in academic or industrial laboratories (following a doctoral degree)

## Infos pratiques :

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- > Composante : UFR Chimie-Biologie
- > Niveau : Bac +5
- > Durée : 1 an
- > Type de formation : Formation initiale / continue
- > Lieu : Grenoble - Domaine universitaire

## Contacts

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### Responsable pédagogique

Carole Duboc  
 carole.duboc@univ-grenoble-alpes.fr

### Contact administratif

ufrchimiebiologie-master-chimie@univ-grenoble-alpes.fr

## Programme

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### Master 2e année

#### Semestre 9 P

<b>UE Bio-targeted chemistry 1</b>	3 ECTS
<b>UE Bioinorganic chemistry</b>	6 ECTS
<b>UE Topics in Biological Chemistry</b>	3 ECTS
<b>UE Bio-targeted chemistry 2</b>	3 ECTS
<b>UE Green chemistry</b>	3 ECTS
<b>UE Outils et méthodes pour l'ingénieur</b>	3 ECTS
<b>UE Outils de l'entreprise</b>	3 ECTS
2 option(s) au choix parmi 2	
<b>UE Heterocyclic chemistry</b>	3 ECTS
<b>UE Chemical development</b>	3 ECTS
<b>UE Chimie médicinale</b>	3 ECTS

**UE Entrepreneurship and Sciences** 3 ECTS

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#### Semestre 9 R

<b>UE Bio-targeted chemistry 1</b>	3 ECTS
<b>UE Bioinorganic chemistry</b>	6 ECTS
<b>UE Topics in Biological Chemistry</b>	3 ECTS
<b>UE Bio-targeted chemistry 2</b>	3 ECTS
<b>UE Bibliography</b>	3 ECTS
2 option(s) au choix parmi 4	
<b>UE Heterocyclic chemistry</b>	3 ECTS
<b>UE Molecular modelling</b>	3 ECTS
<b>UE Green chemistry</b>	3 ECTS
<b>UE High throughput Biology</b>	6 ECTS
<b>UE Structure determination of biological macromolecules</b>	6 ECTS

**UE Chimie médicinale** 3 ECTS

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1 option(s) au choix parmi 1

**UE Outils et méthodes pour l'ingénieur** 3 ECTS

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**UE Entrepreneurship and Sciences** 3 ECTS

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## Semestre 10 P

**UE Stage** 24 ECTS

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1 option(s) au choix parmi 1

**UE English** 3 ECTS

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**UE ETC** 3 ECTS

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## Semestre 10 R

**UE Stage** 24 ECTS

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1 option(s) au choix parmi 1

**UE English** 3 ECTS

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**UE ETC** 3 ECTS

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