

## Master in Chemistry

# Chemistry for life sciences 2nd year

## Presentation

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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.

## Registration and scholarships

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### 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 \(VAPP\)](#).

[skin.odf-uga:SKIN\\_ODF\\_CONTENT\\_PROGRAM\\_CANDIDATURE\\_LABEL](#)

Opening period : from 4th of march to 27th of march 2024 included with e-candidat

You want to apply and sign up for a course master ? 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](#)

### Expenses

UGA registration fees : 243€ + 100€ CVEC

## Further studies

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After the 2nd year in Chemistry for life sciences :

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

## Practicals informations :

- > Component : UFR Chimie-Biologie
- > level : Bacalaurate +5
- > Duration : 1 year
- > Course type : Initial and Continuing Education
- > Location(s) : Grenoble - University campus

## Contacts

### Program director

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

### Administrative contact

Chemistry-Biology Course Services  
 ufrchimiebiologie-formation@univ-grenoble-alpes.fr

## Program

### Master 2nd year

#### Semester 9 P

<b>UE Bio-targeted chemistry 1</b>	3 ECTS
<b>UE Bionorganic 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
<b>UE Green chemistry</b>	3 ECTS
<b>UE Outils pour l'ingénieur</b>	3 ECTS
<b>UE Outils de l'entreprise</b>	3 ECTS
2 option(s) to choose from 2	
<b>UE Heterocyclic chemistry</b>	3 ECTS
<b>UE Chemical development</b>	3 ECTS
<b>UE Chimie médicinale et Médicaments</b>	3 ECTS
<b>UE Entrepreneurship and Sciences</b>	3 ECTS

#### Semester 9 R

<b>UE Bio-targeted chemistry 1</b>	3 ECTS
<b>UE Bionorganic 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) to choose from 2	
<b>UE High throughput biology</b>	6 ECTS
<b>UE Structure determination of biological macromolecules</b>	6 ECTS
<b>UE Heterocyclic chemistry</b>	3 ECTS
<b>UE Molecular modelling</b>	3 ECTS
<b>UE Green chemistry</b>	3 ECTS
<b>UE Chimie médicinale et Médicaments</b>	3 ECTS
1 option(s) to choose from 1	
<b>UE Outils pour l'ingénieur</b>	3 ECTS
<b>UE Entrepreneurship and Sciences</b>	3 ECTS

#### Semester 10 P

<b>UE Internship</b>	27 ECTS
1 option(s) to choose from 1	
<b>UE English</b>	3 ECTS

**UE ETC** 3 ECTS

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## Semester 10 R

**UE Internship** 27 ECTS

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1 option(s) to choose from 1

**UE English** 3 ECTS

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**UE ETC** 3 ECTS

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