

SCIENCES, TECHNOLOGIES, SANTÉ, INGÉNIERIE

Master Chimie

Chimie



Niveau d'étude
visé
Bac +5



ECTS
120 crédits



Durée
2 ans



Composante
UFR Chimie-
Biologie



Langue(s)
d'enseignement
Anglais

Parcours proposés

- > Portail Chemistry 1re année
- > Parcours Chimie et techniques de commercialisation 2e année
- > Parcours Chemistry for life sciences 2e année
- > Parcours Polymers for advanced technologies 2e année
- > Parcours Organic synthesis 2e année

Présentation

The master in Chemistry of the Université Grenoble Alpes is a two-year diploma course. Within the master in Chemistry, the training follows a progressive specialization. The aim is to give master's students a common base of knowledge and skills in chemistry in the first year and then specialized teaching during the second year. The first year is common to the four master 2nd year programs :

- Chemistry for life sciences (CLS)
- Organic synthesis for pharmaceutical and agrochemical industries (SOIPA)
- Polymers for advanced technologies (PTA)
- ChemTechCo (CTC)

During the master's in Chemistry degree, students will acquire both in-depth theoretical skills in their field of specialization, as part of the 2nd year programs, and general

skills in chemistry, with a wealth of experimental know-how in this field where bench experiment is of prime importance. In this way, students will acquire the disciplinary skills vital for any type of chemist (in particular analytical methods, spectroscopy, experimental and bibliographic techniques, amongst others) and skills more focused on the applications specific to each master 2nd year programs. The more specific classes vary from the life sciences interface, to polymer materials and organic synthesis. A master 2nd year's program is also dedicated to technical sale training (taught in French in master 2nd year).

The "disciplinary" classes are also supplemented by several cross-disciplinary classes regarding graduate employment, and by mandatory internships which enable the students to get to grips with working in a team, in an academic or industrial setting, in France or abroad.

At the end of the master's degree, which draws on a rich network of businesses and research laboratories on the site, graduates wishing to enter the industry with five years of university education will be able to work as laboratory managers (as design engineers, research and development engineers, team leaders, pilot managers, production managers, heads of process management and improvement or heads of industrialisation). Those who want to continue with a thesis will be able to undertake doctoral studies to become researchers (towards posts in higher education, public research or industry). The ChemTechCo program, which is a work-linked course, trains technical sales representatives for companies in the chemical instrumentation and environmental analysis sectors.

Formation internationale : Formation tournée vers l'international

Dimension internationale

Mandatory internships (from 2 to 5 months in 1st year and 6 months in 2nd year) which enable the students to get to grips with working in a team, in an academic or industrial setting, in France or abroad.

Admission

Conditions d'admission

- **First year master's degree** : If you have completed a bachelor's degree in chemistry, biological chemistry or physical chemistry or are enrolled in the final semester of a bachelor's program in the same domain, you are eligible to apply to the master's degree in Chemistry
- **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 **chemistry, biological chemistry or physical chemistry**, 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

Master 1

- Opening period for recruitment : **from 25th of february to 24th of march 2025** with  monmaster.gouv.fr

Master 2 Chemistry for life sciences / Organic synthesis

- Opening period for recruitment : **from 31th of march to 18th of april 2025** with e-candidat

Master 2 Polymers for advanced technologies

- Opening period for recruitment : **from 3 th of march to 28th of march 2025** with e-candidat
- Opening period for recruitment : **from 22 th of april to 16th of may 2025** 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

Droits de scolarité

UGA registration fees 2024 / 2025 : 250 € + 103 € CVEC

Et après

Les + de la formation

Le parcours ChemTechCo, qui est une formation en alternance, forme des technico-commerciaux pour les entreprises des secteurs de l'instrumentation en chimie et de l'analyse environnementale.

Infos pratiques

Contacts

Responsable pédagogique

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Lieu(x) ville

📍 Grenoble

Campus

🏠 Grenoble - Domaine universitaire

En savoir plus

Chemistry master's website

🔗 <https://master-chimie.univ-grenoble-alpes.fr/>

Référentiel RNCP

38703.

Programme

Portail Chemistry 1re année

Master 1re année

Semestre 7

	Nature	CM	TD	TP	Crédits
UE Experimental Chemistry / Chimie expérimentale	UE		3h	48h	6 crédits
UE Analytical and spectroscopic methods I	UE	12h			6 crédits
UE Connaissances de l'entreprise et de ses métiers	UE				3 crédits
UE Organic Chemistry 1 / Chimie organique 1	UE	30h	20h		6 crédits
UE Organometallic catalysis / Catalyse organométallique	UE	30h	20h		6 crédits
UE Polymers 1 / Polymères 1	UE	22h	12h	16h	6 crédits
UE Chemistry of biomolecules	UE	30h	20h		6 crédits

Semestre 8

	Nature	CM	TD	TP	Crédits
UE Analytical and spectroscopic methods II	UE	13,5h			3 crédits
UE Stage / Internship	UE				6 crédits
UE Organic chemistry 2	UE	30h	20h		6 crédits
UE Bioorganic and bioinorganic chemistry	UE	36,5h	13,5h		6 crédits
UE Polymers 2 chemistry and physico-chemistry	UE	38h	12h		6 crédits
UE Macromolecular Engineering	UE	22,5h	15h	9h	6 crédits
UE Lab project	UE			50h	6 crédits
UE Anglais	UE		24h		3 crédits
UE ETC	UE				3 crédits

Parcours Chimie et techniques de commercialisation 2e année

Master 2e année

Semestre 9

	Nature	CM	TD	TP	Crédits
UE TECH2 Chromatographie et spectroscopie	UE	24h		24h	6 crédits
UE Analyses électrochimiques, environnementales et spectroscopiques (AEES)	UE	40h		20h	6 crédits
UE Techniques de vente et de commercialisation	UE	72h	15h		6 crédits
UE Science de gestion	UE	40h	10h		6 crédits
UE Contexte professionnel	UE	59h	13h		6 crédits
UE Projet de fin d'études	UE	12h	40h		6 crédits

Semestre 10

	Nature	CM	TD	TP	Crédits
UE Stage	UE	25h			27 crédits
UE Anglais	UE	28h			3 crédits
UE ETC	UE				3 crédits

Parcours Chemistry for life sciences 2e année

Master 2e année

Semestre 9 P

	Nature	CM	TD	TP	Crédits
UE Bio-targeted chemistry 1	UE	20h			3 crédits
UE Bionorganic chemistry	UE	26h	14h		6 crédits
UE Topics in Biological Chemistry	UE	15h	5h		3 crédits
UE Bio-targeted chemistry 2	UE	20h			3 crédits
UE Green chemistry	UE	19,5h			3 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits
UE Outils de l'entreprise	UE	36h			3 crédits
UE Heterocyclic chemistry	UE	27h	3h		3 crédits
UE Chemical development	UE	18h	15h		3 crédits

UE Chimie médicinale	UE	22,5h	4,5h	3 crédits
UE Entrepreneurship and Sciences	UE	14h	10h	3 crédits

Semestre 9 R

	Nature	CM	TD	TP	Crédits
UE Bio-targeted chemistry 1	UE	20h			3 crédits
UE Bionorganic chemistry	UE	26h	14h		6 crédits
UE Topics in Biological Chemistry	UE	15h	5h		3 crédits
UE Bio-targeted chemistry 2	UE	20h			3 crédits
UE Bibliography	UE		15h		3 crédits
UE Heterocyclic chemistry	UE	27h	3h		3 crédits
UE Molecular modelling	UE	12h	9h		3 crédits
UE Green chemistry	UE	36h			3 crédits
UE High throughput Biology	UE	36h			6 crédits
UE Structure determination of biological macromolecules	UE	19h	12h	10h	6 crédits
UE Chimie médicinale	UE	22,5h	4,5h		3 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits
UE Entrepreneurship and Sciences	UE	14h	10h		3 crédits

Semestre 10 P

	Nature	CM	TD	TP	Crédits
UE Stage	UE				24 crédits
UE English	UE		28h		3 crédits
UE ETC	UE				3 crédits

Semestre 10 R

	Nature	CM	TD	TP	Crédits
UE Stage	UE				24 crédits
UE English	UE		28h		3 crédits
UE ETC	UE				3 crédits

Parcours Polymers for advanced technologies 2e année

Master 2e année

Semestre 9 P

	Nature	CM	TD	TP	Crédits
UE Polymers for flexible electronics	UE	15h	9h		3 crédits
UE Nanostructured materials	UE	15h	9h		3 crédits
UE Degradation and sustainability	UE	15h	9h		3 crédits
UE Analysis, formulation and coatings	UE	15h	9h	16h	3 crédits
UE Tools for investigating polymers	UE	20h	14h		3 crédits
UE Polymers for renewable energy sources	UE	15h	9h		3 crédits
UE Biomaterials	UE	15h	9h		3 crédits
UE Biobased polymers	UE	15h	9h		3 crédits
UE Outils de l'entreprise	UE	36h			3 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits

Semestre 9 R

	Nature	CM	TD	TP	Crédits
UE Polymers for flexible electronics	UE	15h	9h		3 crédits
UE Nanostructured materials	UE	15h	9h		3 crédits
UE Analysis, formulation and coatings	UE	15h	9h	16h	3 crédits
UE Tools for investigating polymers	UE	20h	14h		3 crédits
UE Polymers for renewable energy sources	UE	15h	9h		3 crédits
UE Biobased polymers	UE	15h	9h		3 crédits
UE Bibliography project	UE	15h			3 crédits
UE Biomaterials	UE	15h	9h		3 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits
UE Green chemistry	UE	36h			3 crédits
UE Molecular modelling	UE	12h	9h		3 crédits
UE Degradation and sustainability	UE	15h	9h		3 crédits
UE Entrepreneurship and Sciences	UE	14h	10h		3 crédits

Semestre 10 P

	Nature	CM	TD	TP	Crédits
UE Stage	UE				24 crédits
UE Anglais	UE		28h		3 crédits
UE ETC	UE				3 crédits

Semestre 10 R

	Nature	CM	TD	TP	Crédits
UE Stage	UE				24 crédits
UE Stage	UE				24 crédits
UE Ecole d'été - graduate school	EC				3 crédits
UE Anglais	UE		28h		3 crédits
UE ETC	UE				3 crédits

Parcours Organic synthesis 2e année

Master 2e année

Semestre 9 P

	Nature	CM	TD	TP	Crédits
UE Asymmetric synthesis	UE	36h	4,5h		3 crédits
UE Heterocyclic chemistry	UE	27h	3h		3 crédits
UE Chemical development	UE	18h	15h		3 crédits
UE Synthetic strategies	UE	36h	4,5h		6 crédits
UE Green chemistry	UE	36h			3 crédits
UE Chimie médicinale	UE	22,5h	4,5h		3 crédits
UE Outils de l'entreprise	UE	36h			3 crédits
UE Travaux pratiques tutorés	UE			80h	6 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits

Semestre 9 R

	Nature	CM	TD	TP	Crédits
UE Asymmetric synthesis	UE	36h	4,5h		3 crédits
UE Heterocyclic chemistry	UE	27h	3h		3 crédits
UE Synthetic strategies	UE	36h	4,5h		6 crédits
UE Green chemistry	UE	36h			3 crédits
UE Molecular modelling	UE	12h	9h		3 crédits
UE Chimie médicinale	UE	22,5h	4,5h		3 crédits
UE Chemical development	UE	18h	15h		3 crédits
UE Bio-targeted chemistry 1	UE	20h			3 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits
UE Entrepreneurship and Sciences	UE	14h	10h		3 crédits

Semestre 10 P

	Nature	CM	TD	TP	Crédits
UE Stage	UE				27 crédits
UE English	UE		28h		3 crédits
UE ETC	UE				3 crédits

Semestre 10 R

	Nature	CM	TD	TP	Crédits
UE Stage	UE				27 crédits
UE Stage	UE				24 crédits
UE Ecole d'été - graduate school	EC				3 crédits
UE English	UE		28h		3 crédits
UE ETC	UE				3 crédits